BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

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ADMINISTRATIVE LAW JUDGES RAFAEL L. LIRAG and
ELAINE LAU, co-presiding

	)	EVIDENTIARY HEARING
Application of Pacific Gas and Electric Company for Authority, Among Other Things, to Increase Rates and Charges for Electric and Gas Service Effective on January 1, 2020. (U39M)	)	Application 18-12-009

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SAN FRANCISCO, CALIFORNIA

SEPTEMBER 24, 2019 - 9:35 A.M.

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ADMINISTRATIVE LAW JUDGE LIRAG: Good morning, everyone. This is the continuance of the evidentiary hearings in PG&E's general rate case, which is A.18-12-009. Today, we're going to start off with Mr. Kerans.

Good morning, Mr. Kerans.

MR. KERANS: Good morning.

ALJ LIRAG: And then will be followed by Mr. Calvert, Mr. Dashner, Mr. Nagra and Mr. White. And then I don't think that will fill the whole day, so we can take up exhibits later on or we can discuss how best to use the time. I think there's also a shortened time tomorrow, so we can also discuss how -- oh, I only saw the first column. So it looks like we might have a full day today. Looks like a slightly shortened time tomorrow. Anyway, we'll discuss the schedule as the schedule progresses to see what else we can do or not. Anyway, let's take care of business with Mr. Kerans.

Please raise your right hand.

MICHAEL KERANS, called as a witness by PG&E, having been sworn, testified as follows:

THE WITNESS: I do.

ALJ LIRAG: Please state your name, spell your last name, and provide a business address.

THE WITNESS: Mike Kerans. Last name is K-e-r-a-n-s. And my business address is 6111 Bollinger Canyon Road, San Ramon, California.

ALJ LIRAG: All right. Thank you. Let's proceed with the direct examination. I believe we already identified all the exhibits that pertain to Mr. Kerans.

I'm guessing it's Mr. Ouborg.

MR. OUBORG: Yes.

ALJ LIRAG: All right.

MR. OUBORG: Thank you, your Honor.

ALJ LIRAG: 50/50.

DIRECT EXAMINATION

BY MR. OUBORG:

Q Good morning, Mr. Kerans.

A Good morning.

Q Mr. Kerans, I'd like to confirm the testimony that you're sponsoring in this proceeding.

In what has been marked for identification as Exhibit 10, formerly PG&E-3, are you sponsoring a portion of Chapter 2, gas distribution forecast summary

and investment planning, all of Chapter 4, asset family distribution, mains and services, and the workpapers for Chapter 4 presented in what has now been marked as Exhibit 12, formerly PG&E-2?

A Yes, I am.

Q And in what has been marked as exhibit -- as Exhibits 6 and 15, formerly PG&E-16 and PG&E-17, are you sponsoring a portion of Exhibit 6, Chapter 2, rebuttal testimony on integrated planning and affordability, all of Exhibit 15, Chapter 4, rebuttal testimony on asset family distribution, mains and services, and the documents in Exhibit 6, Appendix A, and Exhibit 15, Appendix A, that relate to your sponsor of rebuttal testimony?

A Yes.

Q And what has been marked as Exhibit 26, PG&E's errata, are you sponsoring the errata and the pages in that document that pertain to your testimony?

A I am.

Q And finally, are you sponsoring your statement of qualifications?

A Yes.

Q Were these materials prepared by you or under your supervision?

A They were.

Q And at this time, do you have any further changes or corrections to your testimony?

A No, I do not.

Q And are the facts contained in your -- in these exhibits true and correct, to the best of your knowledge?

A They are.

Q And to the extent they are your opinions, do they represent your best professional judgment?

A They do.

Q Thank you.

Your Honor, Mr. Kerans is now available for cross-examination.

ALJ LIRAG: All right. Thank you, Mr. Ouborg.

Let's identify several exhibits that were distributed before we started.

First, we'll identify as Exhibit 31 -- this will be PG&E's response to TURN data request 87-2, Revision 01.

(Exhibit No. 31 was marked for identification.)

ALJ LIRAG: Exhibit 32 will be PG&E's response to TURN data request 87-3, which includes Attachment 1.

(Exhibit No. 32 was marked for identification.)

ALJ LIRAG: Exhibit 33 is PG&E's response to Cal PA's data request 37-1 with a supplement.

(Exhibit No. 33 was marked for identification.)

ALJ LIRAG: Exhibit 34 will be PG&E's response to TURN data request 86.

(Exhibit No. 34 was marked for identification.)

ALJ LIRAG: Next is Exhibit 35, which is a chapter -- Chapter 1 on gas distribution operations policy and introduction from PG&E.

(Exhibit No. 35 was marked for identification.)

ALJ LIRAG: Ms. Shaefer, where is this from?

MS. SHAEFER: It's from PG&E's rebuttal testimony and their prepared testimony.

ALJ LIRAG: All right. So this is an excerpt from -- from that?

MS. SHAEFER: Yes.

ALJ LIRAG: All right. Next is Exhibit 36, which is an excerpt of the prepared testimony of the Office of the Safety Advocate, supplemental -- I mean this is an excerpt from the testimony of -- whose

testimony is this an excerpt from?

MS. SHAEFER: It is part of our 3500 pages of attachments.

ALJ LIRAG: Okay. It's part of an attachment --

MS. SHAEFER: Yeah.

ALJ LIRAG: -- of OSA's prepared testimony, which we have not identified yet.

MS. SHAEFER: Yes.

(Exhibit No. 36 was marked for identification.)

ALJ LIRAG: All right. Next is another -- is this another excerpt?

MS. SHAEFER: Yes.

ALJ LIRAG: All right. It's another excerpt from OSA's attachment from testimony that has not yet been identified. This one is from Volume III. All right. So that's Exhibit 37.

(Exhibit No. 37 was marked for identification.)

ALJ LIRAG: Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

I think Mr. Long wants to go first.

MR. LONG: Yes. Thank you, your Honor.

///

CROSS-EXAMINATION

BY MR. LONG:

Q Good morning, Mr. Kerans. I'm Tom Long with TURN.

A Good morning.

Q I want to begin by asking you some questions about your qualifications. By the way, my questions will relate solely to the cross bore program.

A Okay. Thank you.

Q So, in terms of qualifications, what is your experience with the cross bore program?

A I work in the Distribution Integrity Management Program, and I've been involved with the other managers and the director of the organization in working with the execution team over the last few years. Additionally, in preparation for this hearing, drafting the testimony, I've been involved with the execution team in preparing it.

Q Involved -- when you say involved with other managers in the execution team, you mean other managers of the cross bore program?

A Yeah, that's -- that's correct, as well as within the Distribution Integrity

Management Program.

Q Okay. I'm just trying to get a sense of what your experience is with the cross bore program. Do you manage the cross bore program in any respect?

A No, I do not manage the --

Q Okay.

A -- cross bore program.

Q Is there a director of the cross bore program?

A There's a director, who is a process owner of the cross bore program.

Q Okay. And what does process owner mean?

A Probably should -- it's complicated. But, a process owner is a new term for PG&E where somebody that owns a -- a process. We've developed several processes within the company. One of them is cross bore. And basically, it's a responsibility to own the process from the beginning to the end. It's a high level of it.

Q Okay. So they're kind of key point of contact for the company on the cross bore program. Is that fair to say? They have -- they're sort of accountable for the program?

A Yeah, that's very well said.

Q Okay. And who's that?

A Currently, that's Austin Hastings.
Q Okay. But, you were the one that was selected to provide this testimony, not Mr. Hastings?
A That's correct.
Q And can you explain why?
A I believe there was -- from our prior testimony, Chapter 4 was set up this way, and I was selected for Chapter 4, which is PG&E's Chapter 4. So that's how.
Q Okay. So hands-on managing the program, that has not been your responsibility?
A No, that's not been my direct responsibility.
Q And then Mr. Hastings -- who does Mr. Hastings report to?
A I'm going off memory, but I believe it's Peter Kenny.
Q Okay. He doesn't have a reporting relationship to you? It's not like you are overseeing --
A No.
Q -- the process owner for the program?
A That's correct.
Q Are you sort of peers in terms of the managerial hierarchy?

A You're speaking of Austin?
Q Yes.
A Yeah. He's a director. I'm a manager.
Q Okay.
A And I'm within the Distribution Integrity Management Program, and he's within the execution branch of the company, so more executing, construction.
Q Okay.
A So we -- we have different -- but, we -- we work closely together when it comes to process coordination.
Q Okay. And at PG&E, a director is a -- someone higher in the hierarchy than a manager. Is that right?
A Yeah. That's a good question, for clarity. That is correct.
Q Thank you. Okay. Now, let's turn to your testimony, and I'll start with your direct testimony, which has been marked as Exhibit 10, and I want to just talk about the -- the risk from cross bores. Maybe you can start by explaining the risk for us. And I'll -- a couple -- you discuss that in a couple places in your testimony, if you want to refer to that. One place is at page 4-11, also on page 4-21. So I'm not trying to

just -- but, I want to have you --

A Agreed.

Q -- help us understand what the risks are related to this.

A Yeah. So I'll give you a -- a little bit of background, then explain the risks.

So a cross bore is a gas main or service that was installed through boring horizontal directional drilling or piercing or another type of trenchless activity, and there's instances when those services or those mains that are gas mains or services could intersect with a storm drain or a waste water system, and when they are in there, they have the potential to be struck by cleaning instruments. Think of a Roto-Rooter or a larger municipal type -- type cleaning device. And if that were to happen, there would be a gas release within a sewer system or a storm drain with a potential and a likelihood that it could migrate into a home or multiple homes, causing an ignition and potential consequences. So that is the direct risk, is the -- the leak in the sewer system migrating into a home.

Q Okay. And when you say, "ignition," ignition could lead to an

explosion. Is that right?

A That's possible.

Q Okay. And on page 4-21 I mentioned a moment ago, you indicate at lines 28 through 30 that cross bores are identified as presenting a high risk to public and employee safety. Is that right?

A You said page 21? Is that correct?

Q 4-21.

A Which lines, again? I -- I agree with you. I just wanted to see the lines.

Q I had lines 28 through 30.

A Yes, that's correct.

Q Okay. In fact, is it correct that PG&E considers this one of the -- one of its highest risks?

A For gas distribution, that is correct, yes.

Q All right. Now, sticking with your direct testimony, lines 23 through 20 -- I'm sorry, page 4-11 and then, in particular, lines 23 through 27, Mr. Abranches gave us a brief -- his understanding of the definition yesterday. I wanted you to tell us your -- your definition of a -- a UTA, or unable to access, location.

A Sure. So lines 23 through 27 essentially define it. I can read it. That

would be the easiest, probably.

Q Why not? I think that might be helpful.

A Okay.

Q We're going to talk a lot about them.

A Yeah. So I think it's good to reference that.

So UTAs are locations where the condition or configuration of a sewer system prevents the routine in-line camera inspections or locations with specific requirements in permitting, such as the San Francisco Municipal Railway.

Q Okay. Now, yesterday -- we don't have the transcript, but I thought I heard Mr. Abranches indicate that all UTA locations are ones that were previously inspected, but the inspections were unsuccessful. Is that always the case with a UTA?

A Yeah. Well, that would be the case in most of them. As I mentioned with the municipal railway ones, some of those could be -- we wouldn't be able to necessarily get into it because of permitting reasons. There's also instances where we -- I mean we went out to try the inspection on a manhole that was sealed. So you could call that the

very initial steps of an inspection, but -- and it was unsuccessful, because you went out there. But, generally speaking, yes, there's an inspection that has occurred that wasn't complete, and then it became a UTA.

Q Generally, but not always. Is that right?

A Yeah.

Q All right. Now, UTAs are a particular issue in San Francisco. Is that right?

A I think they're an issue in many locations. I'm not sure particularly in San Francisco. What do you mean?

Q Well, PG&E's testimony has been focused and PG&E has been focused on addressing cross bores and UTAs in San Francisco. Let me -- let me step back.

I -- I believe in your testimony -- I don't have the citation for it at the moment, but that there is a significant issue with UTAs in San Francisco. Is that fair to say?

A Yeah, I think that's fair to say, is that we're working towards resolving UTAs in San Francisco.

Q Okay. Now, do the San Francisco UTAs pose higher risk than other cross bores?

A So when -- I would say, "Yes," but let me explain. It's not specifically the UTAs in San Francisco that are of higher risk. It's actually just that we believe, given the population density and the find rate as well as the historic installation methods used in San Francisco for plastic pipe, that that creates a -- a higher risk potential for cross bores in San Francisco. UTAs are just a subset of inspections. So my statement would really be that inspections in San Francisco are of a higher risk.

Q Okay. And you actually, I think, have summarized well the testimony in your direct Exhibit 10. It begins at the bottom of page 4-11 and continues on to the top of page 4-12. At the bottom of page 4-11, you were explaining why, even though the plan at the time of the direct testimony was to do fewer overall cross bore inspections, you -- you were explaining why PG&E will get significant risk reduction from it -- its then plan because you'll be doing those -- 10,000 of those San Francisco inspections. Am I -- am I getting this right?

A One second.

Q Sure.

ALJ LIRAG: All right. Let's go off

the record.

(Off the record.)

ALJ LIRAG: Back on the record.

THE WITNESS: Yes. So at the bottom of page 4-11, that is essentially what it says, and then moving on to the next page, the top of page 4-12, it explains some of the reasons that I just explained related to the find rate as well as population density.

BY MR. LONG:

Q Right. And as you said about population density, on page 4-12 beginning at line 7, a release of gas to a -- due to a cross bore in San Francisco could have a higher consequence compared to a similar incident in other regions. Is that right?

A Yes, that is what it says. And just the reason for that, just to explain that, is that because you have more densely packed homes in the urban areas such as this, you also have more sewer laterals, thus more locations that gas would migrate, and if there were an incident, you'd also have the likelihood of adjoined structures that would be impacted by single or multiple events.

Q Sure. And events, as we said, could be an explosion, and an explosion in a densely populated area would be more

calamitous than one in a lightly populated area. Is that right?

A I would agree.

Q And if I could just get you to turn to your workpapers, this has been marked as Exhibit 12. I'm going to, in particular, ask you to turn to page 4-25.

A Yes. That's the --

Q Okay.

A -- volume?

Q Yeah. And if you could look at the last paragraph on that page, again, you're saying that the plan that was selected for the -- at the time of the direct testimony was selected as it allows PG&E to finish performing remaining inspections in San Francisco, an area identified as having the highest risk for cross bores. So is that still your view?

A At -- at the time it was written, that was our -- our plan, yes.

Q I guess, to be more precise, my question is: Would you -- is it still your view that the area having the highest risk for cross bores is San Francisco?

A Yeah. I would agree that -- based on what I've stated earlier, that San Francisco is still an area that we

1 believe is still the highest relative risk
2 for cross bores.
3 Q Okay. Now, shifting to talk about
4 the -- the -- just for a moment, about the
5 cross bore program generally, it began in --
6 for PG&E in 2011. Is that right?
7 A The legacy program, yes, started in
8 2011. I believe prior to that, we had
9 started work with the prevention program,
10 which was looking at new installations to
11 ensure we prevented future cross bores. But,
12 yeah, generally speaking, 2011.
13 Q Okay. Because I have seen that
14 word, legacy, and I didn't know what it
15 meant. Could you explain what legacy means?
16 A Sure. Legacy was a term that we
17 used to define past installations of where we
18 might have put -- had cross bores installed,
19 not intentionally, of course, and that was
20 largely defined as post-'85 plastic
21 installations and plastic services. So that
22 would be the legacy look. It's a look back.
23 And then compare that to the prevention, that
24 would be a program that's using similar --
25 the same funding, however, during new
26 installation, either a main or a service, we
27 would perform sewer inspections before and
28 after the installation to ensure that we did

not create a new cross bore, thus, prevention.

Q Okay. So legacy is about remediation of -- inspecting and remediation, where necessary, for cross bores that occurred in the past?

A Correct.

Q All right. Now, back to San Francisco. When did cross bore inspections start in San Francisco?

A Give me one second to look at a data request. I believe it's --

Q Yeah. And I think it's one I handed you, so if you want to just go to exhibit -- what's been marked as Exhibit 31, the response to TURN data request 87-2 --

A 87.

Q -- revision one.

A Give me one second. Looks like 2012 is when we have recorded inspections in San Francisco --

Q Okay.

A -- just on that data request.

Q Okay. So as far as we could tell from this -- this response, the -- the cross bore inspections began in San Francisco in 2012, ramped up in 2013, and then peaked in 2014? Is that -- is that what the -- the

numbers show?

A Yeah, based on that table, that's correct.

Q Okay. Now, would it be fair to say that PG&E was encountering UTAs in San Francisco from the out -- outset of its cross bore inspection work in San Francisco?

A Could you state the question again?

Q Yeah. Would it be fair to say that PG&E was encountering UTAs from the outset of its cross bore inspection work in San Francisco?

A Let me think about it for a second. The reason I'm thinking is I believe there was a data request that answered this question. One second.

ALJ LIRAG: All right. Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Please proceed, Mr. Kerans.

THE WITNESS: So I was referencing -- it was Public Advocates-37, question eight, and part "A" of that asks when did PG&E determine the number of -- I'm sorry, part "C," I believe.

///

BY MR. LONG:

Q Keep your voice up.

A Sorry. It was part "C." So how many of the San Francisco inspections were deemed to be UTA each year from 2011 to 2018 is the question. And in a response to part "C" -- I can wait if everybody needs to get there.

Q Do you mind if I interrupt?

A No problem.

Q Just because I'm not sure. I think we're going to get to the -- that --

A Sure.

Q What you're attempting to answer. But, my question is just generally.

My understanding is you go out and do an inspection, and sometimes you're not going to be able to do it because it's unable to access. And so it's sort of more like, from my understanding -- and you hopefully know more than I do.

A Sure.

Q But, I would surmise that from the get-go when PG&E first started doing its inspections for cross bores in San Francisco and given the find rate that you talk about later, we'll get to that, that from -- from the outset, PG&E was encountering unable to

access locations. Is that fair to say?

A Partially. And the reason I say that is that the term unable to access, UTA, as we call it, actually wasn't put into use until 2017. To your point, prior to that, there were cases where inspections were attempted, and they may not have been successful. But, in the early stages of the program, 2012 through '16, roughly, the program was focused on completing inspections, and where incompletes were -- were noted, they weren't necessarily recorded with detail to necessarily say they were absolutely a UTA or if perhaps, coming back at a later time, they would be accessible.

Q Okay. Well, whatever the label from -- there -- there were inspections that weren't able to be completed because the inspector wasn't able to get their video camera in where they needed to get it, that was happening from the outset, wouldn't you say?

A Yeah, I would say it's fair to say that there were cases that we were unable to complete inspections.

Q Okay. Now, sticking with this Exhibit 31 data request response we were just looking at, in the answer, the third

paragraph down, second sentence says, "Based on the available data, the total number of cross bore inspections attempted in San Francisco is 13,522." And the sentence before indicates that attempted there means attempted, and not able to be -- attempted, but incomplete, due to access issues. Do you see that?

A I'm sorry. You're back on 87? Is that correct?

Q Exactly. I'm on 87-2.

A I see that, yes.

Q Okay. So 13,522. So this -- this is your data request response. What -- when did that number -- when did that number -- beginning when? When did that -- the count of that number begin?

A So are you asking for the -- the 13,000 two -- or 522 that's referenced there, when did that start counting?

Q Yes.

A I don't know exactly, because I believe we've stated that we weren't tracking them by year. This was a occurring snapshot that the program management team provided as part of the data request. So it's -- it's current as of now, but I wouldn't be able to say the exact date that it initiated.

Q Okay. All right. So -- and then also the -- the response in the previous paragraph says -- the second sentence says, "PG&E does not track cross bore inspections attempted on an annual basis."

Does PG&E track cross bore inspections attempted at all?

A As far as I know, yes, that's correct, we do.

Q Okay. So I'm still confused then about how you got this number of 13,522. They're not tracked on an annual basis, they're tracked on some basis?

A I believe they're just tracked in a database, which is the cross bore database, and this was cleaned up recently as we were going through San Francisco so that this is the most current snapshot we have.]

Q Okay. So it's not like you could go through the database and find a date, I guess, associated with those ones that are attended but incomplete, but you haven't done that?

A My understanding from the team that provided it was that there weren't dates associated with the location.

Q Okay. The records of these inspections don't show the dates?

A That was my understanding but...

Q Continuing on this sort of theme, let's go to the next exhibit that I handed out. It's been marked as Exhibit 32. This is the response to TURN Data Request 87-3. It includes an attachment. If you'd look at that for a moment and then when you have that, I'll have a question for you.

A Yes, I'm here.

Q So the Answer 3-A, first sentence says:

> PG&E did not have an established and published procedure in place for documenting incomplete inspections or UTAs prior to 2017.
>
> Is that a correct statement?

A Yes, that's correct.

Q So that means that prior to 2017, when inspectors were attempting inspections and unable to complete them for whatever reason, there was no established procedure for documenting them; is that right?

A That's correct. They would essentially stay within the scope of the program to come reinspect.

Q And I don't understand what you

just said there. They would stay within the scope of the program to reinspect?

A So the cross bore, the legacy program, has an estimated scope of 500,000 inspection locations. When an inspection is complete, we can consider that as a complete inspection and it's no longer part of the scope of the program because we've completed it. If it wasn't complete, it would not be removed from the scope of the program.

Q But there wouldn't be documentation that an inspection was attempted?

A Yeah, there was not according to this documentation. It might be worth clarifying why as the notes later on in there. It says:

> During the beginning stages of the cross bore program, the program was focused on development and refinement of the program, including identifying inspection criteria and performing records review and establishing an inspection process along with documenting the results of the completed inspections.

So the focus was really on completing inspections and maturing the process.

Q Surely it would be useful information to have from the get-go whether an inspection was attempted somewhere and it was not able to be completed?

A I think in hindsight, yeah, absolutely.

Q So now to date, how many UTA inspections have been performed in San Francisco?

A I believe we've stated there have been none inspected in San Francisco to date.

Q Meaning none have been completed?

A Yeah, that's correct. They are obviously inspected the first time, but they were unable to access and, thus, they were not returned to at this point as your question asked.

Q Okay. And this is reflected in what's been marked as Exhibit 33, which is PG&E Response to CalPA Data Request 37-1, Set 1, if you could turn to that.

A Yes, that's correct.

Q So just looking at the chart in answer to A, no inspections -- that chart is showing no inspections in San Francisco were

completed from 2011 through 2017. And then on page three, the supplemental answer to A indicates that PG&E did not complete any inspection -- UTA inspections in 2018.

That's accurate?

A That's accurate.

Q And then PG&E --

A And, Tom, I just want to make sure, are you on Question 1 or was that Question...

Q This is the response to 37-1.

A Okay.

Q And so I was referring you first to page one of the data request response which has that chart and then page three, Supplemental 1, Answer 1, Item A, first sentence.

A Yeah, I was just trying to clarify if that was specific to San Francisco or broadly. It's not important at this point.

Q Good point, though, but there's apparently no UTAs have -- inspections have been completed anywhere?

A Correct.

Q And that means, therefore, not San Francisco?

A I believe there was a later date addressed it that spoke to San Francisco, but the answer is still the same.

Q And as for 2019, PG&E now has no plans to do any UTA inspections in 2019; is that right?

A Our current plan does not include them; however, if circumstances change, we may attempt some.

Q We'll talk more about that --

A Sure.

Q -- on the deferred work panel tomorrow.

A No problem.

Q Now, so none done yet in San Francisco, no UTAs done. How many inspections in San Francisco do you estimate need to be done, UTA inspections?

A I would probably go to our volume paper. It's in our workpapers if you give me one second.

Q Yeah, and that's what I was going to turn to as well. So it might be page 4-15 in the workpapers. If you have another list to go, let me know.

A No, you're correct, it's 4-15.

Q Let's go over that. So midway down -- well, actually it's row nine. It says "UTA Inspection Forecast in San Francisco." It said, "Confirmed UTA locations, 5,212."

Is that still PG&E's --

A It's approximately about that, yes. It's changed slightly most likely given that we've done some additional inspections, but that's pretty accurate.

Q And what does confirmed mean?

A Confirmed?

Q Yeah.

A This is they've confirmed that they are unable to access that location and it wasn't something that they could potentially come back to at a later point in time, say, for example, maybe it was just a high water issue in a sewer where you weren't able to see the complete top and bottom of the sewer line.

Those instances you might be able to return and see below water. These were confirmed as unable to access.

Q Okay. And then going down further below that row, row 11 says "Forecast at UTA locations" and the forecast is based on an estimate of remaining inspections in San Francisco of 24,000 multiplied by a UTA find rate of 66 percent yielding a number of approximately 15,800.

Did I get that right?

A Yep, that's correct. You've done

the math.

Q So that gets us to a number of approximately 21,000 total UTA locations still needing to be addressed in San Francisco. Is that still PG&E's estimate?

A Yeah, that's our estimate and I just want to kind of clarify that the 15,796 that you cited is -- it's a forecast based on what we were seeing in 2017 from failed inspections. But that is our forecast as we believe that will populate.

Q Okay. So now I want to talk about your forecast of the number of units of inspections starting with your direct testimony.

A Okay.

Q We looked at workpaper page 4-25 earlier. At the bottom it says:

> PG&E plans to perform approximately 10,000 UTA inspections in San Francisco and approximately 14,000 routine inspections outside of San Francisco in 2020 for a total of 24,000 inspections.

So that was your forecast at the time of your direct testimony; is that right?

A Yes, that's correct, at the time of the testimony.

Q And routine there means non-UTA?

A Yes, that would be a non-UTA, a routine inspection.

Q And so you were planning to do those 10,000 UTAs in San Francisco consistent with the view that those are the highest priority cross bores to address; is that fair?

A Yeah, consistent with cross bore inspections in general, whether UTA or non-UTA, in San Francisco with a higher risk.

Q Okay. Now let's go to your rebuttal testimony, which has been marked as Exhibit 15, formerly PG&E 17. I'd like you to look at page 4-9 there.

A I'm here.

Q The particular question in Answer 17 you're basically saying PG&E is clarifying the scope of the cross bore program forecast. Do you see that?

A I see that, yes.

Q And by clarifying, do you mean that PG&E is changing its forecast?

A No. What we mean by that is we're still sticking with the original forecasted dollars, which was roughly 29.9 million,

we'll call it 30 million, to complete the inspections. What was changing was the mix of UTA to routine or non-UTA inspections.

Q Yeah, and actually I should have been more precise with my question. Does clarified mean you're changing the forecast of the units of work from what you proposed in your direct testimony?

A So in a way, yes. We're basically stating in there that we plan to complete the highest volume of inspections, whether it be a UTA or non-UTA. And the paragraph explains that we've had to adjust that based on the difficulties in completing UTAs in San Francisco.

We're not sure if we'll complete all of them. We might complete few, if any, of the UTAs, but our clarification is that we would substitute the UTAs that we were unable to complete them with routine inspections.

Q Okay. And just so you know, I plan to get into the issues about what you're referring to as the difficulties --

A Sure, sure.

Q -- of completing --

A Sure.

Q -- UTAs in San Francisco in the deferred work panel tomorrow since I think it

relates to that issue.

A Okay, I understand.

Q But I do want to just -- here I just want to sort of understand what your clarified forecast of units is.

A Got it, yes.

Q So what is now PG&E's forecast of the number of units it will perform in 2020?

A In 2020, yeah. So if you look at the end of Answer 17, it's on page 4-10, not discussing the reasons we just discussed above, it basically states we expect to perform between 23,887, which will include 10,000 UTAs if we're able to complete them, or 45,630 routine inspections if we were unable to complete it.

And that's actually scaled -- I can cite you to where that's scaled. There's an equation later on in my rebuttal.

Q Sure, go ahead. Yeah, I was going to get to that so that makes sense. You can show us the equation, please.

A Yeah, so if you turn to page 4-14, Question and Answer 27 explains that. And then on the next page, which is 4-15, the equation that fits scales between the two depending on our ability to complete the UTAs is shown.

Q Okay. So putting all that together, my attempt to synthesize this -- and tell me if I've got it right -- is that PG&E's now forecasting that it will do somewhere between zero and 10,000 UTAs in 2020 and, depending upon how many of those it does, the non-UTA or the routine inspections that will be done will be somewhere between 14,000 and 45,000; is that right?

A That's correct.

Q And this is -- that's for each year?

A Yeah, that would carry forward each year for the rate case period.

Q So at this point PG&E is not making any commitments about how many UTA inspections that it's -- it's asking the Commission not to adopt a particular forecast for number of UTA inspections to be completed; is that right?

A Yeah, that's essentially correct. It's that range that we discussed.

Q All right. Now, let's look at the top of page 4-15. You referred us to that formula.

A I'm here.

Q And then there's a footnote to the formula?

A Yes.

Q I'm just going to read that formula, or the footnote. It says:

This equation assumes a fixed funding of approximately $30 million and UTA and non-UTA unit costs of $2,080 and $655 respectively. This equation will not yield a valid count of achievable units if any of these variables is altered.

So now my question is -- and, again, this formula is basically saying the number of non-UTA units that will be inspected will depend -- and, sorry, the number of non-UTA units that PG&E will do will depend on the number of UTA units that PG&E does. But you're committing to spend $30 million.

Is that basically it?

A That's correct, yeah.

Q So going back to that footnote, it says "Will not yield a valid count of achievable units if any of these variables is altered."

So what if the Commission thinks

your 2008 dollar unit costs for UTAs is too high? In that case does the formula work to determine the number of non-UTA units?

A It would change the outputs of that equation so we wouldn't -- we'd have to rely on different numbers of the outputs.

Q This thing says "Valid count of achievable units." I'm just -- it has this ring of, like, "Commission, do it our way or, you know, nothing else." It feels like it has a sort of my-way-or-the-highway sort of feel to it.

Can you explain that?

MR. OUBORG: Your Honor, is that a question? Is he being asked to agree with counsel's characterization?

ALJ LIRAG: Let's have Mr. Long evaluate -- I mean elaborate that question.

BY MR. LONG:

Q Let me just put it a different way. You were saying that if the Commission doesn't agree with your 2008 dollar unit cost, we talked about that with Mr. Abranches yesterday, that it's going to change the numbers. I'm just trying to figure out what that means it will not yield a valid count of achievable units.

So what does that mean for what the

Commission is supposed to do here if it has a different idea?

A Yeah. So for unit costs, Mr. Abranches is really the best person to speak to it. I can speak to the generalities of the unit cost, but PG&E selected a unit cost for UTAs based on a range of different activities that would have to go on. We believe that this was a unit cost that would be reasonably achievable to complete UTAs based on the difficulties we're encountering.

If we alter that, I think that changes the equation and also would change the outputs of the number of units we would be able to complete. I definitely understand where you're coming from. But the reason for that number and the reason we put that footnote in there was we did believe that that was a unit cost that would be achievable for us.

Q So essentially there will not be an adopted number of -- if the Commission were to agree with what you're proposing in your clarified proposal, there would not be an adopted number of units; is that right?

A I don't think it's exactly right. I think there's a range of units that are being adopted.

Q All right. Now, are you aware that in the spending accountability reports PG&E is required now to compare adopted units of work to actual units performed?

A I'm aware of that.

Q And that assumes then that there will be an adopted number of units; is that right?

A I believe I stated earlier that I think a range of adopted units is substantively the same as a unit based on the equation so I think that we would use this equation within the spending accountability report to say that these were the units that we met based on the units we agreed to.

Q Okay. So the adopted units in PG&E's proposal would be that PG&E would do somewhere between 24,000 and 45,000 depending upon whether UTAs were performed or not; is that it?

A Yeah. It would be the range that we've cited earlier.

Q That's all my questions. Thank you, Mr. Kerans.

A Thank you.

ALJ LIRAG: Let's give Mr. Kerans a rest and let's take our morning break right now, so a 10-minute break. Let's be back at

10:35 on the clock. Off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record. Before we continue, let me just make a correction on the exhibits. I think I named one exhibit twice because I had the same copy. So just to clarify, Exhibit 36 is the excerpt from OSA Support Documents, Volume III, so that's correct.

Exhibit 37 I had the same document, so the new Exhibit 37 will be an excerpt from PG&E's rebuttal testimony on gas distribution, so that's Exhibit 37.

All right. We'll continue. At this time it's -- oh, let me just clarify something.

So the forecast is a range of the number of inspections; is that right?

THE WITNESS: Yes. So the forecast is a range and it will depend based on the number of UTAs we can attempt and complete.

ALJ LIRAG: All right.

THE WITNESS: So, for example, let's do a simple math here. If a UTA, we did a hundred UTAs at $2,000 a unit, roughly $2 million, but that was all we could complete in a year, we could subtract that from the $30 million, which would leave us

with $28 million left over to complete routine inspections at the cost of 655, I believe is the number.

That would equate to some function of the number. I'd have to do the math. But that would create this spread between the two.

ALJ LIRAG: All right. Following the point of questioning by Mr. Long, if the unit cost for the UTA inspections changed, then your formula would capture the change in unit cost which should mean a different range of inspections; is that correct or no?

THE WITNESS: So, yeah, the spread between the two is pretty set on the unit costs we have provided there. I think if you were talking about in a real-world instance where there was a real-world higher or lower unit cost, that would be the real-world cost that would either create a deficit of funding or an excess of funding.

ALJ LIRAG: Okay.

THE WITNESS: But if you were to change the forecasted unit cost, then you would have to adjust to the formula to account for it.

ALJ LIRAG: All right. So it's basically a forecast with almost a set cost to develop that forecast?

THE WITNESS: That's correct.

ALJ LIRAG: Okay.

THE WITNESS: And the reason we did that was we wanted to hold ourselves accountable to do the most inspections that we could based on the variation between UTA and non-UTA.

ALJ LIRAG: All right. I think I got it. All right.

Let's have Ms. Goodson.

MS. GOODSON: Thank you, your Honor.

CROSS-EXAMINATION

BY MS. GOODSON:

Q Good morning, Mr. Kerans. I'm Haley Goodson, one of the attorneys representing TURN in this proceeding. I will be asking you questions about the meter protection program.

A Good morning.

Q So please turn first to your rebuttal testimony, originally identified as PG&E 17, but now marked as Hearing Exhibit 15. I'll direct your attention to page 4-20.

A I'm there.

Q In Question and Answer 38, you are responding to the recommendations of TURN and the Public Advocates Office to slow down the

pace of addressing the meter protection program backlog; is that correct?

A Let me read it. One second. Could you repeat the question. Was it just a summary of that? We were --

Q You're addressing the recommendation to slow down the pace of the backlog remediation?

A Yes, this is correct.

Q And at lines 15 to 18, you state:

Extending the duration of this remediation will only contribute to the potential of having another backlog of work as additional locations are found and added to the MPP scope.

And MPP refers to Meter Protection Program; is that right?

A Yes, MPP refers to Meter Protection Program.

Q And do you see that sentence that I just read from your testimony?

A Yes, I do.

Q And so please turn to page 419 at lines three to five. Isn't it correct that PG&E has requested funding for MPP work at new locations that are found during this GRC

cycle called New Findings Unit?

A Yes, it's correct that as part of our forecasted units it includes New Findings.

Q And the funding for the New Findings Unit is additional to PG&E's requested funding for the backlog remediation work; is that right?

A I'm not sure what you mean by additional.

Q There are two distinct parts of the total budget.]

A I don't believe that's correct. And the reason I say that was on the prior page, 4-18, the question states: "Summarize your forecast," and the forecast below for the answer says, "Requesting 13.2 million to perform meter protection at 14,615 locations in 2020." That volume of 14,615 includes the new finds.

Q And it also includes the remediation units. Is that right?

A Yes. Yes.

Q Okay. I think we're saying the same thing.

A Perhaps I missed you, but now we've connected.

Q Okay. Yeah. So the forecast has

new finding units and backlog remediation units?

A Correct.

Q Yes. And PG&E's requesting funding for both types of work in this GRC?

A That's correct.

Q Okay. And so if PG&E completes the new findings work on schedule, would you agree that PG&E could avoid a backlog of new findings work?

A Could you define what you mean by on schedule?

Q According to the schedule that underlies PG&E's forecast in the GRC.

A I don't -- could -- I'm not quite following the schedule. You mean within the three-year period?

Q Yes.

A So the question was -- could you state it one more time?

Q Sure. I'll try to say it differently.

A Thanks.

Q Maybe that'll be more helpful.

A Yeah.

Q So if PG&E addresses locations needing meter protection that are found during this GRC --

A Uh-huh.

Q -- you address them as you find them during this GRC, would you agree that you could avoid the creation of a backlog of new find units?

A Yeah, I would agree that if we completed the backlog units and the new finds that you would not have a backlog remaining at the end of the GRC period.

Q Different question: Your testimony on page 4-20 suggested or expressed your worry that you could have a new backlog?

MR. OUBORG: Could you refer counsel to --

MS. GOODSON: Sure, lines 15 to 17.

Q Extending the duration of this remediation will only contribute to the potential of having another backlog of work as additional locations are found. And I -- maybe I should just ask you what you meant by that. That was --

A Yeah.

Q -- a confusing statement to me.

A Maybe that's -- yeah, maybe clarifying that. So what we meant by that was completing the forecast in units, the 14,615, that would eliminate the backlog that we currently have as well as the new finds.

But, that was all-inclusive. It wasn't meant to seperate the two. We treat them all as meter protection for locations, and that the goal was to eliminate the backlog by the end of this rate case period.

Q So you're not suggesting, then, that slowing down the backlog remediation would result in your falling behind on new units, new findings work, are you?

A I think it would just depend on the -- the units that we performed. If there was -- if our goal was to complete the entirety of the backlog, but we were unable to do it in the duration that we've set forth here, then, yes, you would have a backlog at the end of that. It would either be the new finds or the existing ones. It would basically be one of the two. Right?

Q I -- I see. So am I correct in summarizing what you're saying as -- as follows: If the Commission provided funding for the backlog remediation at a slower pace than PG&E's proposed, but fully funded the new findings work, and PG&E decided to use some of that funding not on new findings, but on backlog remediation, then you could have a new backlog?

A Kind of a long trail there, but

in -- could you simplify that? I think you basically said that if there was two separate ways of funding, and some of the funding for new finds was put towards a backlog, you would be left with a backlog of new finds as opposed to a backlog of the original finds.

Q I'm asking if that's what you're saying. If the Commission gave you less funding than you're asked for -- than you've asked for because the Commission funded the backlog remediation at a slower pace, but PG&E decided to reallocate the funding for the program more to remediation, is that what you're suggesting would result in the new backlog?

A So I think we might be mixing up things here a little bit.

Q Okay.

A I'm sorry. So PG&E's goal in this is to remediate the backlog plus the new finds, and that's what we've put forward in the units and the rebuttal, was 14,615 units in 2015, which is inclusive of both new finds and in the backlog units. Where we want to be at the end of this is at a point where when new finds come in, we complete them in a timely manner within the two years allotted to us by the work and compliance matrix. The

work and compliance matrix is a PG&E standard which basically outlines the time that things should be remediated, various activities, meter protection, valves, et cetera. So --

Q Mr. Kerans --

A -- that's -- that's our goal, and I'm not quite following where this proposal is.

Q Is it your understanding that the Commission is going to determine what amount of funding is appropriate for the meter protection program based on the Commission's assessment of the reasonable pace and scope of work?

A Yeah, that's my understanding.

Q So the Commission might authorize less funding for the program than PG&E has requested. Is that right?

A That's a potential.

Q Yes. And the Commission might reduce the authorized funding as recommended by TURN and the Public Advocates Office in order to align with a slower pace of remediating the existing backlog. Is that your understanding, the Commission could decide to do that?

A That's a possibility.

Q Yes. And if the Commission were --

strike that.

So if the Commission were to authorize less funding, are you suggesting that PG&E might choose to prioritize backlog remediation over new finds work, and therefore, still have a backlog?

A Well, I think whether we prioritize one or the other, there would still be a backlog, based on that.

Q Okay. I think I understand your --

A Yeah. I mean --

Q Your statement.

ALJ LIRAG: Let me try --

MS. GOODSON: Yeah.

ALJ LIRAG: -- a little differently so I -- I get it. Let's say you only have -- not for the entire amount, but this is just a hypothetical.

Let's say you only have funding to address either something in the backlog or something in the new finds, and you only had one amount, and you can only address one. Which has a higher priority, the backlog or the new find?

THE WITNESS: So from a -- a risk, they all basically are the same risk and -- and compliance level. Code requires that we protect these, but code doesn't give a

specific date. We've determined two years is the date, and we haven't necessarily made a priority between the new finds or the backlog as -- as such. I would assume we would do it as efficiently as we could, whereas, for example, if there is a new find that was directly next door to a -- a remediation one from the AOCs, it would be efficient to do both of those on the same day because of the proximity. So that's how I would assume how we would likely allocate the work and execute it.

ALJ LIRAG: All right. So if there's a shortage in funding from either fund, it's not necessarily that funds will be shifted to address the other one. You would address what is more efficient, whether it be a new find or a backlog?

THE WITNESS: I'm assuming that's how it would work. We haven't necessarily done that at this point and planned for that, but that would be my assumption, and --

ALJ LIRAG: All right. That -- thank you.

Proceed, Ms. Goodson.

MS. GOODSON: Thank you, your Honor.

Q So Mr. Kerans, please turn to page 4-20, and at lines 19 to 22, you explain

that TURN uses a 25-year historical average of bollard installations performed in the meter protection program to determine TURN's forecasted pace of backlog remediation, but PG&E believes that the historic pace is not fast enough to meet PG&E's current standards. You see that?

A I see that section, yes.

Q And just a moment ago, you mentioned PG&E's utility standard that provides for the timeline -- the timeframe for addressing meter protection. And in footnote 47 on this same page, you explain that utility standard TD-4854S, gas distribution work and compliance matrix requirements, sets timeframes for performing corrective work like the meter protection program on the gas distribution system. Yes?

A Yes, that's correct.

Q So do you have before you the document that's been identified as Exhibit 34? This is PG&E's response to TURN data request 86.

A I do have it in front of me.

Q And was this response prepared by you or under your direction?

A It was.

Q And in this response, you provided

TURN with utility standard TD-4854S and associated documents. Is that correct?

A That's correct.

Q All right. And on -- in the response to question 1-A, which is on page 2, you explain that this utility standard was first published by PG&E in 2016. Is that correct?

A Yes, that's the date that was on it when it was first published.

Q And to your knowledge, has the Commission evaluated and approved this utility standard?

A Not aware if they have or have not.

Q Is it your understanding that this is a PG&E internal standard?

A Yeah, that's my understanding.

Q And did meter protection work have a completion date prior to the adoption of this utility standard in 2016?

A Not that I'm aware of. It didn't have a specific duration of time. And as I noted earlier, I believe it's the Code 192.353 which cites meters need to be protected, but does not prescribe a specific timeline.

Q Bear with me as I jump around a little bit, because you're answering some of

my questions out of --

A I apologize.

Q Out of order. No. No. That's fine. Just give me a second.

So in Exhibit 34, at the top of the pages there are headers that PG&E provided, and I'm going to refer to pages that are tied to those headers so you can hopefully follow me.

A I'm sorry. Where are we? Are we --

Q We are --

A -- still on data requests?

Q Yes, we are. And each of the attachments has a header, and then the attachments also have internal numbering. And so I'm going to --

A Okay.

Q -- try to make this easy to follow, but I wanted to flag that for you.

So in Attachment 1, please turn to page 2 of 5.

A I'm here.

Q And if I understood you correctly, you just said that meter protection work is required by regulatory code. But, is it also correct that the code doesn't define a timeframe for when that work should be done?

A Yes, that's correct.

Q So meter protection work is compliance required work, according to the matrix, which is paragraph two in Requirement 1.7 on this page. Is that right?

A Yeah, that's correct. It's also on page 3 under definitions of compliance work, or compliance required work.

Q Compliance required work. And the -- this document states that the timeframes established in this utility standard are internal guidelines for corrective work and resource planning, and can be extended with approval. Do you see that?

A Yes, that is what it states.

Q And to your knowledge, does this utility standard provide a -- a timeframe longer than two years for any other category of gas distribution compliance required work?

A Off the top of my head, I can't say for sure. I think there's probably 36 months in there, but I would have to go through. It's a -- it's a pretty long spreadsheet, I want to say thousands of lines, that we've got in there. So --

Q Okay. Thank you. And same attachment, next page, page 3 of 5, this

is -- these are roles and responsibilities. And let me point you to Responsibility 2.2, and this explains that the asset family owner can approve an extension when -- in the compliance required work completion date if the extension exceeds three months. Is that right?

A Yes, that's correct. That's what it states.

Q And then in your rebuttal testimony, Exhibit 15, or PG&E-17, on page 4-21, and at lines 14 to 18, you explain that the asset family owner here extended that two-year timeframe to -- to five years for the backlog remediation. Is that right?

A Yes, that's correct. Following the work and compliance matrix, we extended it, the asset family owner extended it, to five years.

Q And could the asset family owner extend timeframe longer?

A It's possible, if he determined it was a prudent decision to do that.

Q And please turn now to the workpapers supporting your direct testimony in PG&E-3, and this volume of workpapers has been -- the workpapers supporting Chapters 3 to 5 of PG&E-3, and it's been identified as

Hearing Exhibit 12. When you find the volume, I'll point you to the workpaper.

A You might want to -- I got a little lost in all the numbers there. I'm not sure. Could you -- which --

Q Oh, actually --

A -- PG&E reference is it?

Q -- you know what -- your Honor, may we go off the record for just a moment?

ALJ LIRAG: All right. Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

MS. GOODSON: Thank you.

Q Mr. Kerans, I'm going to correct the -- the citation I gave you before. I'd like you, please, to -- to turn to your workpaper 8-53, which is contained in Hearing Exhibit 13. Do you have that before you?

A I do have it before me. Thanks.

Q Thank you. And at line 88 there is -- begins a table that provides the asset family owner relative risk rating for gas distribution abnormal operating conditions work. Do you see that?

A I do see that table.

Q And at line 92, there is a list of

the activities that have been -- PG&E has given a low relative risk rating. Do you see that?

A I see that.

Q And that low risk rating includes meter protection. Is that right?

A Yes, that's correct, it includes metering protection.

Q So assume, for purposes of my question, that PG&E decides to reprioritize resources to work more urgent than low risk rating work, and the result is that the meter protection -- some meter protection work will not get done in the authorized timeframe. If that were to be the case, would the asset family owner need to approve that reprioritization before it occurs?

A If it were to extend beyond the existing approval, yes, there would have to be a approval to extend it further.

Q So would that approval take place as part of PG&E's reprioritized budgeting process?

A So I think the -- the reprioritizing plans would be discussed there. The actual approval mechanism would be through one of our electronic approval routing systems through them through -- to

the AFO.

Q So does -- would it follow the reprioritization decision or would it precede the reprioritization decision?

A Generally speaking, there would be discussions about the need to prioritize that include the AFO. Those discussions would result in a decision of some nature, whether they adjust it or not, and then following the determination, then there would have to be approval to efficiently document that in the approval system.

Q So that work orders in -- in the SAP system would align with the new plans?

A Yeah. So there's a -- a compliance completion date in SAP that would be required to be updated on all of the orders in there if that approval is granted.

Q Thank you, Mr. Kerans. I have no further questions.

A Thank you.

ALJ LIRAG: All right. Thank you.

Ms. Shaefer?

CROSS-EXAMINATION

BY MS. SHAEFER:

Q And good morning.

A Good morning.

Q Can you hear me okay?

A I can.

Q Okay. I'm not sure how to turn on the mic.

If I could please have you turn to your rebuttal testimony --

ALJ LIRAG: Hang on just a second, Ms. Shaefer. Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Please proceed, Ms. Shaefer.

MS. SHAEFER: Okay. Okay. Is -- okay. There we go. The button keeps getting hit by that.

ALJ LIRAG: Would you rather use the other mic?

MS. SHAEFER: I'm fine.

ALJ LIRAG: Okay. All right.

BY MS. SHAEFER:

Q If I could please have you, Mr. Kerans, turn to your rebuttal testimony which was originally listed as Exhibit PG&E-17, and go to page 4-27, you had stated in lines 15 and 16, "PG&E recognizes that early vintage plastic pipes, specifically the Aldyl-A, pose a risk." Is this statement still correct?

A Yes, the statement is still

correct.

Q Thank you. And if you will look on the same page, lines 17 to 18, you state that PG&E has the intent of increasing replacement rates in future years of these pipes. Is that still correct?

A Yes, that's still correct.

Q Thank you.

A And that's based on an internal asset management plan that we have.

Q Okay. If I could get you to go to your direct testimony, which is originally listed as PG&E Exhibit-03, and I'm looking at page 4-29, lines 1 through 11.

A Yes, I see those.

Q Thank you. You indicated that PG&E's plan for increasing pipeline replacement rates in future years -- is this still correct, what you have listed?

A Yes, at the -- I forgot the lines, 1 and 2, states that we still intend to increase over the future years.

Q Okay. Thank you. And is there anywhere in the -- PG&E's direct testimony that discusses the future replacement rates for plastic pipes, that you are aware of?

A What do you mean future? Do you mean beyond the current rate case or do you

mean --

Q Yes, future and beyond.

A Let me think. Aside from those, no, I believe those are the only places we've noted that intention of increasing, yes.

MS. SHAEFER: Could we go off -- could we go off the record?

ALJ LIRAG: All right. Off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

MS. SHAEFER: Thank you.

Q To clarify my -- my previous question, is there a place in your testimony, in the direct testimony, that you can direct us that discusses the future replacement rates for plastic pipes in terms of numbers, where there are any numbers?

A Beyond -- the testimony speaks mostly to this rate case period. I don't believe, unless you're aware of one that I'm not, that we spoke to outside of the -- the three-year period for this rate case.

Q Well, we'll move on.

A Okay.

Q Okay. In your direct testimony, at again Exhibit PG&E-03 as originally labeled, page 4-28, in lines 21 through 24, PG&E

states PG&E's overall rate of pipeline replacement has more than doubled from 2013 to 2017 levels, keeping PG&E on the path of achieving a removal rate of pre-1985 pipes that limit asset age to nearly a hundred years. Is this still correct?

A Yes, that's still correct.

Q Okay. When does PG&E plan on implementing its 100-year replacement rate plan?

A So our current strategy, as I alluded to earlier, is our asset management plan. It's a document entitled "GP-1102." I think we've brought sections of it today, if we wanted to review it. But, that document is an asset management plan that provides long-term strategic objectives for the distribution mains and services asset family. PG&E has asset families beyond that and similar strategic objectives and asset management plans. But, within the GP-1102, we cite that we have an objective to replace pipe at that rate by 2030.

Q Okay. Thank you. If you turn to the -- what is now OSA Exhibit Number 36, which is an excerpt from our -- our attachments to our testimony, to the Office of Safety Advocates testimony, for data

request OSA Oral 002-Q01, which is dated July 17th, 2019, PG&E indicated that it has approximately 25,600 miles of pre-1985 plastic and steel distribution main. Is this still correct?]

A Yeah, that's still roughly correct. It changes obviously as we replace pipes though.

Q Based on this, is it correct to state that PG&E's plan is to replace 25,600 miles of pre-1985 pipes in 100 years?

A Got me on the math, but, yes, our strategy is more around the annual replacement rate, which you could divide that by 100 and in over a hundred years, it would be roughly the 25,000 noted there, correct.

Q Okay. Thank you. If we go back to PG&E's direct testimony, which is, again, originally labeled Exhibit PG&E-03, and we go to page 4-28, lines 25 through 29, PG&E states that its plan for a 2020 to 2022 is to replace 140 miles of main annually which includes 90 miles of pre-1985 Aldyl-A similar plastic pipe, 35 miles of GPRP pipe, and 15 miles of reliability pipe; is this correct?

A That was correct for our original testimony. In our rebuttal we've updated

that to reflect the recommendations from OSA.

Q Would you agree that at the rate as corrected per your rebuttal, that it would take PG&E over 147 years to replace all 25,600 miles of pipes if you can do the math?

A If you've done the math, I would assume that that's correct. It's subject to check, of course.

Q And then if we could turn to page 1.1 of the direct testimony.

MR. OUBORG: Sorry, 1.1?

MS. SCHAEFER: 1-1, sorry, 1-1 of the direct testimony which is, again, PG&E Exhibit-03.

MR. OUBORG: Your Honor, that's a different witness' testimony.

ALJ LIRAG: Let's hear the question and then you can object.

BY MS. SCHAEFER:

Q PG&E has approximately 42,800 miles of distribution pipes; correct?

A Yeah, I believe it's about 43,000 at this point.

Q Would you agree that post-1985 pipes will need replacement in the near future?

A I'm not sure what you mean by "near future." I don't believe 1985 and newer

pipes will be required to be replaced in my terms of near future which is within the next hundred years probably or more.

MS. SCHAEFER: Can we go off the record for a second.

ALJ LIRAG: Let me just continue. You can confer. Let me ask a couple of questions.

So based on the current rate that you're proposing, you're not going to complete the hundred-year replacement based solely on this rate that's being proposed in the GRC?

THE WITNESS: No. As I noted earlier, our strategic objective strives to increase the rates of replacement over the next decade essentially. We're targeting towards 2020 -- I'm sorry, 2030 to get to that rate that's around 240 miles, 250 miles of replacement per year. But the current rate case is moving towards that.

ALJ LIRAG: All right. So you're planning to increase the rate of replacement until you get to probably the right rate in 2030, and then from 2030 moving forward, it will be a constant rate?

THE WITNESS: Yeah. It would essentially be a steady state at that point.

ALJ LIRAG: All right. That is clear.

Please proceed, Ms. Schaefer.

BY MS. SCHAEFER:

Q If I could correct what I stated. Would you agree that the post-1985 pipes will last another hundred years?

A Yeah, I would agree that they will last a hundred years, perhaps even longer. We believe that post-'85 plastic resin and installation methods are of a higher quality than the earlier stages of plastic pipes in this methodology. A lot of the reasons for that is just, you know, better manufacturing over time, as well as standardization over time.

Joining procedures have been standardized so modern pipes will have a longer life and better performance over time.

Q Okay. Thank you so much. That's all from Office of Safety Advocate.

ALJ LIRAG: I think Judge Lau has a question.

EXAMINATION

BY ALJ LAU:

Q Good morning. I actually have some questions regarding the cross bore program. So in testimony it says that the cross bore program is focused in San Francisco. It

compared Diablo and Sacramento. What kind of studies did PG&E do to focus its work solely on San Francisco when PG&E has a wide service territory?

A So this actually goes back to the very beginning of the legacy program. When that program was beginning, they scoped the program based on the criteria of post-'85 plastic mains and plastic services. And predominantly where that work has occurred over 1985 until today was using the horizontal directional drilling technology. We obviously exclude pipes that were installed with direct bearing into a trench.

But with the two criteria of post-'85 plastic and horizontal directional drill, we understood that San Francisco and Sacramento and Diablo were areas where that type of installation has gone on in the highest volume. Thus, we started there from a records review standpoint.

San Francisco with its continued work has shown that we found that these assumptions are fairly good, that it had a higher find rate of 7.2 per thousand inspections as compared to the other ones which were lower. And then obviously the risk part of that you have to add in the

consequences. If there were an incident, San Francisco is obviously more dense than most places in Sacramento and more dense than most places in Diablo.

Q And I remember -- clarify me if I'm wrong -- did I hear that prior to 2017 there was no record of the dates when there was a UTA?

A Yeah. So we weren't tracking UTAs in the term UTA prior to that. So we had a volume of incomplete is what they were at the time. Sometimes you were able to return and complete an inspection. Other times we then decided these are to be turned into a UTA after 27 years.

Q And is there a plan to address the UTAs?

A So we're currently working on that plan. We've been working and engaging with a lot of the interested parties that are in San Francisco that include city municipal railways and obviously the sewer customers which had the laterals. So we're working through that plan and we're also working through some ways that we could inspect them through less invasive means.

Q Okay. That's all my questions. Thank you.

A Thanks.

ALJ LIRAG: I think Mr. Ouborg will have redirect questions.

MR. OUBORG: Give me one moment, your Honor.

ALJ LIRAG: Let's take a five-minute break. Everyone will take a break except for Mr. Ouborg and Mr. Kerans. Let's go off the record. We'll resume at 11:30.

(Off the record.)

ALJ LIRAG: Let's go back on record.

Mr. Ouborg, any redirect?

MR. OUBORG: No, your Honor.

ALJ LIRAG: Let's take care of some of the exhibits, particularly the cross exhibits.

So Mr. Long, 31 to 33?

MR. LONG: Yes, your Honor, TURN moves Exhibits 31 and 32, and we note for the record that Exhibit 33 is also attached to the testimony of TURN's witness Jennifer Dowdell.

ALJ LIRAG: All right.

MR. OUBORG: So if you prefer, we can defer moving that into evidence.

ALJ LIRAG: Let's just withdraw it for now and then we'll take in the exhibit that contains this attachment.

MR. LONG: So we will not move 33 into evidence at this point.

ALJ LIRAG: Any objections?

(No response.)

ALJ LIRAG: Hearing none, Exhibit 31 and 32 are admitted into the record. Exhibit 33 is withdrawn.

(Exhibit No. 31 was received into evidence.)

(Exhibit No. 32 was received into evidence.)

ALJ LIRAG: Same question, not about the withdrawing, but about moving into the record, to Ms. Goodson for Exhibit 34.

MS. GOODSON: Yes, your Honor. TURN seeks to move Exhibit 34 into the record.

ALJ LIRAG: Any objections?

(No response.)

ALJ LIRAG: Hearing none, Exhibit 34 is received into the record.

(Exhibit No. 34 was received into evidence.)

ALJ LIRAG: Same question to Ms. Schaefer for 35, 36, 37, move into the record?

MS. SCHAEFER: Yes, please.

ALJ LIRAG: Any objections?

(No response.)

ALJ LIRAG: Hearing none, Exhibits 35,

36, and 37 are received into the record as well.

(Exhibit No. 35 was received into evidence.)

(Exhibit No. 36 was received into evidence.)

(Exhibit No. 37 was received into evidence.)

ALJ LIRAG: Thank you, Mr. Kerans. You are excused.

THE WITNESS: Thank you.

ALJ LIRAG: Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Good morning, Mr. Calvert.

THE WITNESS: Good morning.

ALJ LIRAG: Please raise your right hand.

STEVE E. CALVERT, called as a witness by PG&E, having been sworn, testified as follows:

THE WITNESS: I do.

ALJ LIRAG: Please state your name, spell your last name, and provide a business address. You can put your hand down.

THE WITNESS: Sure. Steve Calvert, the last name is C-a-l-v-e-r-t, business address is the PG&E office at 303 Carlson Street in

Vallejo, California.

ALJ LIRAG: Thank you.

It's going to be Mr. Gallo.

MR. GALLO: Yeah, Mr. Gallo.

ALJ LIRAG: Please proceed with the direct examination.

MR. GALLO: Good morning, your Honor, thank you.

DIRECT EXAMINATION

BY MR. GALLO:

Q Good morning, Mr. Calvert.

A Good morning.

Q I'd like to confirm the testimony you're sponsoring in this proceeding, Mr. Calvert. In what has been marked for identification as Hearing Exhibits 16 and 17, which were formerly PG&E Exhibit 4, Volumes 1 and 2, are you sponsoring all of Chapter 9, Distribution Overhead System Hardening and Reliability; all of Chapter 10, Distribution Automation and System Protection; and all of Chapter 11, Underground Asset Management?

A Yes, I am.

Q And in the Workpapers for Chapters -- oh, sorry. Are you also sponsoring the Workpapers for Chapters 9 and 10 that were presented in hearing Exhibit 18, which was formerly Exhibit PG&E-04,

Workpapers 1 through 10, and also the Workpapers Chapter 11 presented in Hearing Exhibit 19, formerly PG&E Exhibit 4, Workpapers, Chapters 11 through 19?

A Yes.

Q And in what has been marked as Hearing Exhibit 20, formerly PG&E Exhibit 18, Volume I, are you sponsoring all of Chapter 9 and Attachment A, the Rebuttal Testimony on Distribution Overhead System Hardening and Reliability and all of Chapter 11, the Rebuttal Testimony on Underground Asset Management?

A Yes.

Q And in Hearing Exhibit 21, which was formerly PG&E Exhibit 18, Volume II, Appendix A, are you also sponsoring the documents for Chapter 11 that relate to your sponsored exhibit Chapter 18 rebuttal testimony?

A I am, yes.

Q And in what have been marked as Hearing Exhibits 25 and 26, which were formerly PG&E Exhibit 14 and PG&E Exhibit 29, which are PG&E's Errata, Volumes 1 and 2, are you sponsoring pages 14 to 200 to 14 to 201?

A Yes, I am.

Q And pages 2969 to 2976?

A Correct.

Q And then finally, are you sponsoring your statement of qualifications?

A Yes, I am.

Q And were all these materials prepared by you or under your supervision?

A Yes, they were.

Q Do you have any changes, corrections, or additions to make at this time?

A I do not.

Q And are the facts contained in these exhibits true and correct to the best of your knowledge?

A Yes, they are.

Q Do the opinions expressed therein represent your best professional judgment?

A Yes.

MR. GALLO: Thank you, your Honor. Mr. Calvert is now available for cross-examination.

ALJ LIRAG: Thank you. Let's go off the record first.

(Off the record.)

ALJ LIRAG: Let's go back on the record and let's have the cross by Ms. Schaefer.

CROSS-EXAMINATION

BY MS. SCHAEFER:

Q Hi, Mr. Calvert.
A Good morning.
Q If I could have you turn to PG&E Exhibit-04, which is now, I believe, Exhibit 18 in working paper on page 11-30.
A Yes, I'm there.
Q You justify risk as:
The LBOR switch replacement helps mitigate safety risks to employees and the public from explosions and fires.
And then you also state that:
Under safety and reliability, this program is evaluated in terms of safety and reliability to determine the extent of system risk reduced by completion of the proposed work. This program is necessary for reducing safety issues and for reliability as it has major impact to a large number of customers.
Is this correct?
A That's correct as stated on page 1130, yes.

Q Based on these two passages, do you agree that without replacing these switches under this LBOR switch replacement program, the continued operation of LBOR switches can cause safety and reliability issues?

A Yes, they can if not mitigated.

Q Thank you. If we go to PG&E Exhibit 4 on page 11-20, not in the workpapers, in the main part.

A In the testimony?

Q In the testimony.

A Okay.

Q At lines 26 through 30, you state:

There have been approximately 459 reports of failed LBOR oil switches between 2000 and 2017, some of which were reported to have high-energy failures. About 60 percent of these failures were on switches manufactured in the 1970s or 1980s by various manufacturers.

Is that correct still?

A That's correct.

Q According to your testimony, do you agree that the continued operation of LBOR

switches have caused outages?

A LBOR switch failures have indeed caused outages.

Q Has there been an incident involving underground oil-filled switches in the past six months to your knowledge?

A Yes, I believe we provided an exhibit that pointed one out.

Q Could you describe that incident.

A I want to make sure we're talking about the same one. We're talking about the Walnut Creek?

Q Yes, the Walnut Creek incident.

A 3003 -- was it Baker Street?

ALJ LIRAG: Let's just make it subject to check.

THE WITNESS: Yes.

BY MS. SCHAEFER:

Q Thank you. And this was caused by the switch causing fire?

A Well --

MR. GALLO: Objection, your Honor. I think we need a document so we can have a specific reference to the incident. I know there's a document available.

ALJ LIRAG: All right. Do you have a reference document?

MS. SCHAEFER: This will be in OSA's

excerpt from supported documents in support of the prepared testimony of the Office of the Safety Advocate in our voluminous attachments.

ALJ LIRAG: Do you have that, Mr. Gallo?

MR. GALLO: Yes, your Honor, thank you.

ALJ LIRAG: Does the witness have it?

THE WITNESS: Are we referencing the electric incident report?

BY MS. SCHAEFER:

Q Yes. We're referencing the actual incident report.

A Yes, I have it in front of me.

Q Okay. So this would be an incident report, PG&E reference number EI190518A and it was notified to CPUC on May 19, 2019.

A Correct. That's when it was determined reportable.

Q We wanted to confirm that you were aware of this incident so thank you, and that this incident did occur this year in May.

A Yes, this incident did but I want to correct my statement. If this was a failure at the location of a switch, I don't know that this report provides a root cause as to what actually failed. There was an elbow that was replaced, as well as a switch

that was replaced.

It was also -- I looked into this event. There was also reports of a hole in the switch after the fault. So it's still to be -- sitting here now, I can't state that this was a switch failure. It may have been an elbow failure.

Q Thank you for the clarification. Given that the LBOR switch replacement program was initiated to improve safety and reliability, as well as reduce outages, and the fact that there was a recent incident at Walnut Creek in May 2019, does the continued operation of these switches post a safety and reliability risk?

A Yes, there is some degree of safety and reliability risk.

Q If I could have you turn back to the working paper in what is originally labeled as PG&E Exhibit 4.

A Okay.

Q On page WP 11-31.

A I'm there.

Q The section under Cost states:

The forecast unit per switch replacement has increased from $50,000 as a forecast in the 2017 GRC to

approximately a hundred thousand dollars per unit. The increase in average unit cost is a direct result of the increased scope of work necessary to replace these units, which often includes replacing the underground vault enclosure, rerouting duct lines, and re-poling/replacing associated cable. A quote, unquote, plug-and-play replacement switch is not available for the three different LBOR switch configurations found in the PG&E system, most of which prior to 1976 were installed in round enclosures with diameters of 42 inches and 48 inches and various shallow depths. Is this still correct?

A It's correct.

Q Since you knew of the increase in the unit costs for replacing this switch

while preparing this particular 2020 GRC application, why did you not propose an adequate level of funding such as the funding replacement level set in the 2014 GRC for this replacement program in this application given the continued operation of these switches that pose safety and reliability risks?

MR. GALLO: Objection, ambiguous and argumentative as to "adequate level."

ALJ LIRAG: All right. Sustained.

You can elaborate, Ms. Schaefer. No need to reread the passage. You can change several things to highlight what you're asking.

MS. SCHAEFER: We'll redact the question.

ALJ LIRAG: All right.

MS. SCHAEFER: That actually concludes our questioning. Thank you so much, Mr. Calvert.

THE WITNESS: You're welcome.

ALJ LIRAG: Let's check if there's any redirect. So you are done for the day, I think. I don't see any other cross for OSA.

Mr. Gallo, any redirect?

MR. GALLO: No, thank you, your Honor.

ALJ LIRAG: Well, I can't excuse

Ms. Schaefer. But let's break for lunch and let's come back at around 1:10 on that clock. You are temporarily excused, Mr. Calvert. We'll come back and continue cross-examination. I think we have --

MS. GANDESBERY: We have no one else.

ALJ LIRAG: Oh, is there no one else? Isn't there 20 minutes for --

MS. GANDESBERY: TURN waived its cross.

ALJ LIRAG: Then I just have one question.

Are there any new laws -- new regulations that came into effect that will affect the -- that affected the forecast for the underground assets?

THE WITNESS: I'm not clear on what you are referring to, "new laws"?

ALJ LIRAG: New regulations that became effective as of the date you prepared your testimony that you're aware of.

THE WITNESS: I'm not aware of any.

ALJ LIRAG: All right. Judge Lau, any questions?

ALJ LAU: Are you the witness sponsoring the Rule 28 program?

THE WITNESS: I am not.

ALJ LAU: All right. Thank you.

ALJ LIRAG: Can you find out from PG&E

who it is.

MR. GALLO: Who is the Rule 28 --

ALJ LIRAG: Who the witness is, yeah.

MS. GANDESBERY: Yes, we can give you that.

ALJ LIRAG: All right. I guess Mr. Calvert is excused. Thank you very much.

THE WITNESS: Thank you.

ALJ LIRAG: All right. Let's break for lunch. Return at 1:10. Off the record.

(Off the record.)

(Whereupon, at the hour of 11:50 a.m., a recess was taken until 1:20 p.m.)

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AFTERNOON SESSION - 1:15 P.M.

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ALJ LIRAG: Let's start. We are back from our lunch break, and we will resume today.

It looks like deviation from schedule, we will have Mr. Nagra instead.

But first I'll just check if Commissioner Randolph wants to say a few remarks?

COMMISSIONER RANDOLPH: No. Thank you.

SATVIR NAGRA, called as a witness by Pacific Gas and Electric Company, having been sworn, testified as follows:

THE WITNESS: Yes.

ALJ LIRAG: Please state your name, spell your last name and provide a business address.

THE WITNESS: Yes. Satvir Nagra, N-a-g-r-a. Business address is PG&E office is 705 P Street, Fresno, California.

ALJ LIRAG: Thank you.

Mr. Gallo.

MR. GALLO: Thank you, your Honor.

DIRECT EXAMINATION

BY MR. GALLO:

Q Good morning, Mr. Nagra. Good

afternoon, excuse me.

A Good afternoon.

Q May I confirm the testimony you are sponsoring in this proceeding?

A Yes, you may.

Q Okay. In what has been marked for identification as Exhibit 17, formally PG&E Exhibit 4 Volume 2, are you sponsoring all of Chapter 13, Electric Distribution Capacity, and all of Chapter 14, Electric Distribution Engineering and Planning?

A Yes, I am.

Q And in Hearing Exhibit 19, which was formerly Exhibit 4 Workpapers Chapters 11 through 19, are you sponsoring the workpapers for Chapters 13 and 14?

A Yes, I am.

Q And in what has been marked as Hearing Exhibits 20 and 21, which were formally PG&E Exhibit 18 Volume 1 and 2, are you sponsoring all of Chapter 13, Rebuttal Testimony on Electric Distribution Capacity, and all of Chapter 14, Rebuttal Testimony on Electric Distribution Engineering and Planning?

A Yes, I am.

Q And in Hearing Exhibit 22, which was formerly PG&E Exhibit 18 Volume 2

Appendix A, are you sponsoring the documents that relate to your PG&E Exhibit 18 rebuttal testimony?

A Yes, I am.

Q And in what has been marked as Hearing Exhibit 27, formally PG&E Exhibit 29, which is PG&E's Errata Volume 2, are you sponsoring pages 29-77 to 29-80?

A Yes, I am.

Q Finally, are you sponsoring your statement of qualifications?

A Yes, I am.

Q And were all these materials that I just listed prepared by you or under your supervision?

A Yes, they were.

Q And do you have any changes, corrections or additions to make at this time?

A No.

Q And are the facts contained in these exhibits true and correct to the best of your knowledge?

A Yes.

Q And do the opinions expressed therein represent your best professional judgment?

A Yes, they do.

MR. GALLO: Thank you.

Your Honor, Mr. Nagra is now available.

ALJ LIRAG: All right. Any cross exhibits, Mr. Hawiger?

MR. HAWIGER: No, your Honor. Not at this time.

ALJ LIRAG: Thank you for accommodating our schedule change. Please proceed with your cross.

MR. HAWIGER: Thank you your Honor.

CROSS-EXAMINATION

BY MR. HAWIGER:

Q Good afternoon, Mr. Nagra.

A Good afternoon.

Q I'm Marcel Hawiger with The Utility Reform Network.

My questions concern your rebuttal testimony in Exhibit 20. And if you could turn, please, first to page 13-3.

A That is my rebuttal page 13-3?

Q Yes, sir.

A Yes.

Q Am I correct that, as shown in the table, you are forecasting capital expenditures for the three years of the rate case of about $400 million, very roughly?

A Roughly we are at those totals by

year, yes.

Q And TURN's proposed reductions for this capacity capital expenditures total about 21 million, would you agree, as shown in your line 3 of that table?

A Yes. It is roughly 21.

Q Okay. Let me ask you to turn to page 13-9 of your rebuttal testimony, and focus on your Question and Answer 28.

A Okay.

Q Am I correct that in that response you testify that the reduced customer account program would reduce SAIDI, SAIFI and CAIDI and thus improve customer satisfaction?

A Yes. In addition to other things.

Q And are SAIDI, SAIFI and CAIDI metrics used to measure reliability?

A Yes.

Q And do reductions in those metrics correspond to improved reliability?

A Yes.

Q Has PG&E calculated the potential reduction in SAIDI, SAIFI or CAIDI resulting from implementing the reduced customer account program?

A No. As stated in the answer, we have not calculated the reduction in those metrics. But it is intuitive if you reduce

the number of customers served by a feeder; when there is an outage, those metrics will be reduced.

Q And is that intuitive because a smaller number of customers would necessarily mean smaller number of customer minutes of interruption if the same circuit is interrupted for the same amount of time?

A Yes; that is correct.

Q Why given that -- PG&E has data on historic interruptions, customer interruptions, and number of customers on feeders, does it not?

A We do have -- we can get information of what those indices are on different parts of our distribution system, yes.

Q And why did PG&E not do some calculation to look at what would have been their reduced minutes of interruption if some of the feeders with more than 6,000 customers on them were reduced to below 6,000?

A Well, our distribution planning guidelines states that we want to try to limit the number of customers, as well as the amount of load that we put on a single feeder, just so that when there is an outage, less customers are impacted. But more

1 importantly, if there is an outage, or we
2 need to take planned clearances to do work,
3 we have the ability to move those customers
4 to other feeder. When you have so many
5 customers, you have high load on a feeder,
6 that operational flexibility doesn't exist.
7 So in following with our
8 guidelines, we have some feeders that serve
9 more than 6,000 customer. And the intent
10 here is to go after those feeders that have
11 more than 6,000 and try to produce that
12 number to below 6,000 to be in line with
13 that, which in turn improves the reliability
14 indices. We did not calculate what those
15 benefits would be, because there are multiple
16 benefits, not just the reliability benefits,
17 but there is also a lot of operational
18 benefits.
19 Q Has PG&E conducted an analysis
20 comparing the past reliability of feeders
21 with more than 6,000 customers versus feeders
22 that have less than 6,000 customers?
23 A No. Not that I'm aware of.
24 Q And PG&E has the data that would
25 enable you to conduct to compare
26 reliabilities of -- historical reliabilities
27 of feeders with more versus less than 6,000
28 customers, do you not?

A That data would exist, yes.

Q Let me ask you to turn to page -- I'm sorry. Further in the same Answer 38, 28, excuse me, Answer 28, you indicate that this program would also reduce the risk of equipment failure due to overload conditions. That is at lines 25 through 27. Do you see that?

A Yes.

Q Does PG&E track equipment failures due to the overload conditions?

A No. PG&E does track outages due to equipment failure, but it does not track whether that piece of equipment failed in overload. Equipment failure can happen any time of the year. Typically if you are going to have an overload that would happen during your peak period. It doesn't mean during your peak period you are going to have a piece of equipment fail. If it failed later, you wouldn't know if it would overload, or not.

Q What does the term "overload conditions" mean?

A It means that a piece of equipment is rated to be at a certain amperage or a certain kW. And that under normal operations, or under emergency operations,

you may exceed what that rating of that equipment is.

Q And if a circuit is rated to a certain capacity, does that mean that all of the equipment on the circuit is rated to operate at that capacity?

A No. If the feeder breaker rating is at a certain capacity, all equipment in that substation would be rated to that capacity. But as you move out into the field along the feeder, the load drops as you have customers. So not all equipment on that feeder might be rated to the same capacity.

Q Okay. Is there a capacity rating for a feeder as opposed to a substation?

A Yes. A feeder and a feeder breaker does have its own capacity rating.

Q Okay. Doesn't PG&E upgrade substations and circuits that are forecast to be at risk of overloading routinely as part of its capacity programs?

A Yes. As part of the program we do identify overloads on feeders, and we do mitigate those overloads by doing additional work.

Q Does having more than 6,000 customers on a feeder automatically increase their risk of overload on that feeder?

A There is a higher probability because you have more customers, so you are serving more load. The feeder tends to be very long and spread out. So there is a higher probability that you could fit overload, if you have more customers.

Q So let me ask you -- actually, let's go to the next part, and we will come back to this in a little bit.

If you could turn to the next page, page 13-10, and look at Response Answer 31 on that page.

A Okay.

Q And am I correct there that you testify that the reduced high loading program would also improve reliability, looking at lines 21 through 22?

A Yes. Yes, they would. Because by reducing the load, you are going to reduce the number of customers on that feeder. So if there is an outage on that feeder, you impact less customers.

Q Just to be clear, what is the relationship between the load on a feeder and the number of customers on a feeder?

A To get load on a feeder, right, you are serving load that is produced by customers that are on that feeder. So if you

move customers from one feeder to another, you reduce the loading on one feeder and increase it on another. If you reduce the load on one feeder you, in turn, reduce the number of customers you are serving on that feeder because those two go hand in hand.

Q Are these programs kind of, these two programs that reduced customer count and reduced high loading, very similar to what you are doing?

A They are similar in the way that you are reducing the number of customers that would be impacted by an outage, and they are similar in that you create more operational flexibility. So that when there is an outage or we need to take a planned outage to do maintenance or other work, you would impact less customers because you would have more capacity to move those customers amongst the adjacent feeders.

Q Am I correct that the customer account program is targeting feeders that have more than 6,000 customers, right?

A Yes.

Q And the reduced loading program is targeting feeders that are operating at above 600 amps; is that right?

A Yes.

Q So they are not always necessarily the same feeders, are they?

A No.

Q You could have feeder with fewer than 6,000 customers that happen to have some customers with very high loads, and so they are rated for above 600 amps, correct?

A Yes. Depending on which part of our service territory they are in; that is correct.

Q Is a feeder that is operating at 600 amps basically rated for a capacity higher than 600 amps?

A So our typical rating of our approximately 3200 feeders is typically around 600 amps, or lower. But, however, we do have some feeders that are rated higher than that, and those are the target of the program to reduce loading below 600 amps.

Q And has PG&E done a study estimating the reduction in SAIDI, SAIFI or CAIDI resulting from implementing this high -- reduced high loading program?

A No, we haven't.

Q Have you done a study comparing the reliability of feeders that are rated above 600 amps with feeders that are rated below 600 amps?

A No, we haven't.

Q Now, the feeders -- you also testify going further on lines 23 and 24 that similarly, as the previous program, this program would reduce the risk of equipment failure due do overload. Do you see that?

A Yes.

Q If a feeder is rated above 600 amps, what might be a typical rating of the feeder?

A I don't have exact numbers, but they could be 650, could be 660, any of those numbers. But I don't have an exact number for you right now.

Q If a feeder is rated at 650, would an overload condition occur if the current on the feeder gets above 650 amps?

A If the current gets over 650 at the breaker, yes, that would overload equipment at the breaker. However, downstream of that along the line, there could be different ratings for equipment and could cause an overload of a different component other than the breaker at the substation.

Q Okay. And if you have a circuit that is rated at 600 amps, am I correct that that circuit would be overloaded if the current gets above 600 amps on that circuit?

A Yes. If the circuit is rated at 600 amps at the breaker and gets over 600 amps, it would be overload, yes.

Q So is your testimony that there is a higher risk of overloading on circuits that are rated at, say, 650 amps versus circuits that are rated at 600 amps?

A No. It is -- basically what I'm saying there is because you have circuits that are rated at greater than 600 amps, and you have greater than 600 amps of load on those, when there isn't an outage, you are affecting more customers. And when you are doing your restoration, you don't have the flexibility to be able to pick up all that load on the adjacent feeders, thus your outage for many customers would be longer.

Q Okay. So this is going back to the issue that SAIDI and SAIFI might be reduced if there are planned outages and you have to shutoff the entire circuit, correct?

A You have to shutoff portions of the circuit. It doesn't necessarily have to be the entire circuit.

Q Okay. Let me ask you to put that aside, issue aside, and focus on this issue of the risk of equipment failure due to overload conditions. Can you explain why

there is a higher risk of equipment failure due to overload on a circuit that is rated at 650 amps versus a circuit that is rated at 600 amps?

A Just the probability is higher, because you are serving more load on that circuit. So even though all your components at the feeder head may be rated for 650 amps, downstream from that not all components are rated that. So if you happen to get load that is approaching that 650 amps, there may be a possibility that you could overload something downstream.

Q And have you analyzed any data that PG&E has to support this assumption that circuits rated at 650 are more likely to overload than circuits rated at --

A No. I have not done an analysis.

Q Do you have any anecdotal information? I mean what is the basis for that? I understand intuitively there is more load. If a circuit is rated for a higher load, why is it more likely to overload than a circuit that, say, is rated at 600 but might be operating close to 590?

A In the context of how that is written, if you increase the capacity by moving load from one circuit to another,

overall you may be reducing a load on that circuit or another circuit and reducing the probability of overload on one of the adjacent circuits as well, because you have more capacity to move that load between multiple circuits instead of having it on that one circuit.

Q And this ability for more flexibility to move load, this is when you are doing switching operations as part of planned outages?

A Planned outages, emergencies, just normal operations.

Q Doesn't that flexibility really derive from how much capacity, excess capacity, you have on the circuit? Whether it is rated at 600 or 650, it really depends on what is the load on that circuit, right?

A In this case, to be able to reduce the load to a number that is lower than 600 amps, or at 600, you would have to install additional capacity to be able to do that. That allows you to have more capacity, more flexibility to move that load around, and thus lower probability of overloading anything. Not just on that feeder, probably the adjacent feeders as well, because now you can move that load around.

Q Has PG&E experienced any overloads due to doing switching from circuits that are rated at above 600 amps?

A I am not aware of any in my job function. But there could have been, but I'm not aware of anything.

Q Has PG&E experienced any outage during switching operations when switching load from feeders that have more than 6,000 customers on the feeder?

A Outages do happen, but I'm not aware whether circuit with greater than 60 amps was involved, or not.

Q Let me ask you to turn to page 13-12 of Exhibit 20. And looking -- I'm sorry, page 13-11, pardon me. In that Answer 35 towards the bottom of the page you are discussing TURN's criticism of extending SCADA to the capacitor bank program. Do I understand that your testimony at lines approximately 25 through 26 is that this program will help manage overall power factor?

A Yes. Installing SCADA capacitor banks will help manage overall power factor of that system, yes.

Q And has PG&E calculated the amount of power factor improvement expected by the

application of SCADA to capacitor banks in excess of that provided by traditional locally controlled capacitor banks?

A No. I have not calculated that.

Q Okay. And then on the next page 13-12, continuing in that same answer, you indicate that program will reduce voltage issues and will reduce the need for field visits; is that right?

A Yes. A secondary benefit of that is a better control of the voltage. Because now you have monitoring capability, so you have the visibility into what the voltage is doing on that circuit and not at that location and how turning on and off that capacitor bank changes that. So it does provide the benefit of knowing what the voltage is doing.

Q What are voltage issues, by the way?

A Voltage issues can be high or low voltage.

Q And is that -- I mean, voltage in below or above the voltage limits under the Electric Rule 2?

A Yes.

Q Okay. How many capacitor banks do you intend to install SCADA on as part of

this during this rate case?

A I would have to check that number.

ALJ LIRAG: Go ahead. Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Please proceed with your answer, Mr. Nagra.

THE WITNESS: Approximately 91 units a year.

BY MR. HAWIGER:

Q Is this a program that will continue past this rate case cycle?

A It may. We are trying to target substation transformer banks that have poor power factor, where we are trying to improve the power factor. In the future, we may target that, additional banks.

Q Did PG&E evaluate whether there are more voltage issues on the distribution capacitor banks that you have identified for SCADA insulation?

A No. The primary intent of doing this isn't for voltage. It is to better manage the power factor. The benefit you get, the secondary benefit, is you are better able to manage the voltage as well.

Q When you say "better manage," is that basically because you can remotely control the capacitors instead of having to control them through onsite field visits?

A It is more having the visibility into what the capacitor unit is doing, and how it is affecting the voltage on that feeder and that line section. So you are able to see, you have visibility into it. And of course you can do it remotely and don't have to send somebody else to troubleshoot.

Q Does PG&E have many issues with keeping feeders within the voltage limits?

MR. GALLO: Objection. Vague.

ALJ LIRAG: I'll allow it.

THE WITNESS: We do have issues. There are voltage complaints when we are out of range, as well as we do see it on our models and we do try to correct that. And during day-to-day operations they do run into voltage issues during switching, during planned clearances, during outages. So there are issues. I'm not aware of the specific issues, but I do know there are issues, yes.

BY MR. HAWIGER:

Q How does PG&E distribution operations measure or know about voltages on

the feeders currently?

A Via either devices that are already on SCADA, like the distribution feeder breaker. You can see what the voltage is. If there is other combinations on that feeder that are also SCADA, we also can know what it is doing, as well as they can also get some information from the smart meters and know what the voltage is doing.

Q In fact, don't all of the residential smart meters measure voltage?

A I'm not sure if we have the ability to have the voltage from every meter. But yes, smart meters, we can get voltage from those.

Q When you say you "can," does that mean PG&E does get -- the distribution operations gets the voltage data from the smart meters to determine if there are any voltage issues?

A It is not ongoing monitoring. Every smart meter, they have to actually ping it, meaning call up that particular meter to see it. You don't have that data readily available to see it on the screen like you do the SCADA data.

Q And lastly, let me turn on the same page 13-12 in your rebuttal to your Answer 39

towards the bottom of the page. There you are discussing installing SCADA on voltage regulators, correct?

A Yes.

Q And does PG&E have some existing voltage regulators with SCADA at this point?

A Yes.

Q Okay. And I believe -- am I correct in your testimony you state that the benefit of this program is better voltage control?

A The benefit of the program, what we've identified here, is regulators that have backflow due to DERs. And what this allows us to do is better control the voltage at those units remotely when we have to do bidirectional switching and need to take that regulator out of its cogeneration mode. And we are able to do it remotely instead of having to send somebody else out to do it during planned switching or during emergency switching. This enables us to do that remotely, as well as have visibility into what the voltage is doing at that location. Whether it is in its normal configuration or during that switching, we are better able to know what that voltage is doing. As well as when we are doing studies for interconnection

of additional DERs beyond that unit, we are better able to have data available for that study when you have SCADA.

Q Does PG&E track voltage complaints by feeder?

A No, we don't.

Q How does PG&E know that this is a problem that you are trying to address here?

A We are trying to be proactive. These are units where we know we have backflow due to DERs, and these are units that are in the mainlines. And we do know that we need to do switching, whether for planned clearances or emergencies.

And when we do that, we would have to send somebody out to take it out of cogen mode, and then go back and put it in cogen mode once everything returns to normal. This would allow us to do all that remotely, but provides a secondary benefit of providing data that can be utilized for monitoring that voltage, for doing interconnection studies, just better visibility into what that unit is doing.

Q Aside from the benefit of the visibility, is it correct that the primary benefit of this program is the financial, excuse me, the reduced operations of

maintenance costs due to not having to send out a field technician to operate the voltage regulator onsite?

A That is one of the benefits. But I think having that visibility and control it to that unit to resolve issues that might occur on that feeder are also benefits that result from having SCADA on the right layers.

Q Have there been any issues that have been needed to have been resolved so far?

A Operations does switching and resolves issues on a daily basis. I personally am not aware. That is just something I'm not aware of, no.

Q Understanding that there are maybe some benefits due to visibility, why did you not conduct a benefit cost analysis to just compare the financial benefits of reducing field visits versus the capital costs of installing the SCADA?

A Because the benefit of installing SCADA wasn't just to save dollars for sending somebody out. It is to gain that visibility into what that regulator unit is doing during backflow issues, as well as when we need to do emergency and planned switching.

MR. HAWIGER: Can I have a moment off

the record, your Honor?

ALJ LIRAG: Off the record.

(Off the record.)

ALJ LIRAG: Back on the record.

Just double time check, how much do you have?

MR. HAWIGER: I think one more question.

ALJ LIRAG: All right. Please proceed.

Back on the record.

BY MR. HAWIGER:

Q Regarding the SCADA -- I'm sorry, two questions, one foundational -- you presently have some voltage regulators through SCADA; is that right?

A Yes. Any new regulator we put on the system is put on with SCADA, so yes.

Q `Have you done an analysis evaluating whether feeders with voltage regulators of SCADA result or have better voltage control or fewer issues compared to feeders with locally controlled regulators?

A No. I have not done that.

MR. HAWIGER: Thank you very much, Mr. Nagra.

Thank you, your Honor.

ALJ LIRAG: Any questions, Commissioner Randolph?

COMMISSIONER RANDOLPH: No.

ALJ LIRAG: Judge Lau?

ALJ LAU: No.

ALJ LIRAG: Mr. Gallo?

MR. GALLO: We have no redirect, your Honor.

ALJ LIRAG: Mr. Nagra is excused.

Off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Good afternoon, Mr. Dashner.

MR. DASHNER: Good afternoon.

ANDREW DASHNER, called as a witness by Pacific Gas and Electric Company, having been sworn, testified as follows:

THE WITNESS: Yes, I do.

ALJ LIRAG: Please state your name, spell your last name and provide a business address.

THE WITNESS: Andrew Dashner, D-a-s-h-n-e-r, 1850 Gateway Boulevard, Concord, California.

ALJ LIRAG: All right. I think it is still Mr. Gallo?

MR. GALLO: Yes indeed, your Honor. Thank you.

ALJ LIRAG: Please proceed.

DIRECT EXAMINATION

BY MR. GALLO:

Q Good afternoon, Mr. Dashner.

A Good afternoon.

Q Mr. Dashner, I would like to confirm the testimony you are sponsoring in this proceeding. In what has been marked for identification as Hearing Exhibit 10, formerly Exhibit PG&E-3, and Hearing Exhibit 17, formerly PG&E Exhibit 4 Volume 2, are you sponsoring all of PG&E Exhibit 3 Chapter 10, New Business and Work at the Request of Others, and all of PG&E 4 Volume 2 Chapter 16, New Business and Work at the Request of Others?

A Yes, I am.

Q And in what has been marked as Exhibit 14, formerly PG&E Exhibit 3 Workpapers 9 to 11, and Hearing Exhibit 19, formerly PG&E Exhibit 4 Workpapers Chapters 11 through 19, are you sponsoring the workpapers for Chapter 10 of Exhibit 3 and workpapers for Chapter 16 of Exhibit 4?

A Yes, I am.

Q And in what has been marked as Hearing Exhibits 20 and 21, formerly PG&E Exhibit 18 Volume 1 and 2, are you sponsoring all of Chapter 16 Rebuttal Testimony New

Business and Work at the Request of Others?

A Yes, I am.

Q And are you sponsoring all of the documents in PG&E Exhibit 18 Volume 2 Appendix A that relate to your PG&E Exhibit 18 rebuttal testimony?

A Yes, I am.

Q And also the workpapers for Chapter 16 presented in PG&E Exhibit 18 --

A Yes, I am.

Q -- of your rebuttal?

Okay. Just one more. And in what were marked as Exhibits 26 and 27, which is formerly PG&E Exhibit 14, and PG&E Exhibit 29, which are PG&E's errata, are you sponsoring pages 14-204 to 14-213 and 29-81 to 29-86?

A Yes, I am.

Q Finally, are you sponsoring your statement of qualifications?

A Yes, I am.

Q Were these -- all the materials I've listed prepared by you under your supervision?

A Yes, they were.

Q Do you have any changes, corrections or additions to make at this time?

A No.

Q Are the facts contained in these exhibits true and correct to the best of your knowledge?

A Yes, they are.

Q And do the opinions that you expressed therein represent your best professional judgment?

A Yes, they do.

MR. GALLO: Thank you, your Honor. Mr. Dashner is now available for cross-examination.

ALJ LIRAG: Any cross exhibits, Mr. Schlesinger?

MR. SCHLESINGER: Only if I need to for impeachment, your Honor.

ALJ LIRAG: I'll hold off on that. I'll check your exhibits later, Ms. Liotta, just to the get Mr. Schlesinger out of here.

MR. SCHLESINGER: Thank you.

ALJ LIRAG: Please proceed with your cross.

MR. SCHLESINGER: I appreciate your accommodations.

CROSS-EXAMINATION

BY MR. SCHLESINGER:

Q Good afternoon, Mr. Dashner.

A Good afternoon.

Q My name is Jake Schlesinger, S-c-h-l-e-s-i-n-g-e-r. I'm with the Law Firm of Keys & Fox, and I'm here today on behalf of the Joint CCAs.

A Okay.

Q Nice to meet you.

All of the questions that I have for you today relate to your rebuttal testimony what has been marked as Exhibit 20, previously PG&E 18 at pages 16-4 and 16-5.

A Okay.

Q And specifically we are going to be talking about the expenses labelled MWC EV. You are familiar with those?

A Yes.

Q And just so we are all on the same page, MWC EV are expenditures and costs related to the processing of customer applications for new gas and electric service, correct?

A Correct.

Q So somebody calls the company and needs new service that generally involves connecting them to either a gas distribution service or the electric distribution service, correct?

A That is correct.

Q So the costs that we are talking

about here, however, are the administrative costs associated with processing that request, right?

A Yes, correct.

Q We are not talking about the costs of the wires or the pipes, right?

A Correct.

Q Okay. And these costs fall within the customer care organizations, right?

A Major Work Category EV falls within new business and WRO program.

Q And that is a customer care cost?

A Could you rephrase that question for that program?

Q The expenditures that we were just talking about, MWC EV, are a type of customer care cost, right?

MR. GALLO: Objection. Vague and ambiguous.

ALJ LIRAG: Sustained. You can explain a little bit more, Mr. Schlesinger.

MR. SCHLESINGER: I think I can just...

ALJ LIRAG: Move on?

MR. SCHLESINGER: Move on.

ALJ LIRAG: Thank you.

BY MR. SCHLESINGER:

Q So PG&E had initially allocated these MWC EV costs 100 percent to the

electric distribution line of business, correct?

A Correct.

Q And I believe you stated that that is because PG&E does not track the percent of time used to assist each customer inquiry by customer type, right?

A That is correct.

Q So is it typical for PG&E when it doesn't have data about the utilization of a service to assign all of it to electric distribution?

MR. GALLO: Objection. Calls for speculation, argumentative, assumes facts not in evidence.

ALJ LIRAG: Overruled.

THE WITNESS: I can only speak to the new business WRO on programs, as far as how PG&E allocates those costs. In this case we had originally allocated 100 percent to electric distribution.

BY MR. SCHLESINGER:

Q In response to a discovery request propounded by the JCCA clients, you or your team recognized that the service of processing new customer applications was not being solely utilized by electric distribution customers, right?

A That is correct.

Q And because you recognized that multiple kinds of customers but gas and electric were utilizing the service, it made sense to allocate the cost more eventually, correct?

A Correct. It was allocated between the customers of electric and gas distribution.

Q Got it.

Just to be clear, not all PG&E customers are both gas and electric customers, right?

A Correct.

Q So you have some gas-only customers, some electric customers and some combined customers?

A Correct. For example, SMUD customers could receive their electricity but PG&E gas.

Q Got it.

A There are other examples throughout our service territory.

Q Sure. Moving forward PG&E has agreed to allocate these costs between gas and electric, even though that has not been the historical practice, right?

A That is correct.

Q Do you know for how long historically these costs were assigned only to electric distribution customers?

A I do not.

Q Probably for some time?

A I would agree with that, yes.

Q Okay. And there has never been a reconsideration of that because it has never really come up before, no party has ever challenged that?

A Not that I'm aware of.

Q And so you agreed in your rebuttal testimony to utilize this 55/45 split allocator to recognize the utilization of the service by electric and gas customers?

A Correct.

Q Okay. And is that the same allocation methodology that PG&E generally uses for other types of customer care costs where there is no data?

MR. GALLO: Objection. Mischaracterizes the witness's statements and argumentative.

ALJ LIRAG: Sustained. You can lay a foundation.

BY MR. SCHLESINGER:

Q Okay. Can you explain what the 55/45 allocation is based on?

A The percent of customers that are electric compared to the percent that are gas.

Q And is that --

A Excuse me. Percent of applications PG&E receives for electric, as opposed to gas. I apologize. I misspoke.

Q 55/45 is the relative amount of applications that PG&E receives?

A I believe --

Q -- for gas service?

A Let me check.

ALJ LIRAG: Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

THE WITNESS: I apologize. That percentage is based on the total number of PG&E's electric customers to its gas customers, 55 being electric, 45 being gas.

BY MR. SCHLESINGER:

Q So total customer accounts then, not applications received?

A Correct, my apologies.

Q No problem.

Do you know whether PG&E uses that same customer account allocator for other customer care costs?

MR. GALLO: Objection. Mischaracterizes the witness's testimony, assumes facts not in evidence.

ALJ LIRAG: It is -- I'll allow it. It is a straight question.

THE WITNESS: I would characterize them as costs that support customer service of new business applications, not customer care.

BY MR. SCHLESINGER:

Q Okay. Do you know whether the company uses the 55/45 allocator to allocate other customer service costs?

A I do not.

Q You do not, okay.

So getting back to these MWC EV costs, moving forward, assuming the Commission adopts your rebuttal testimony, these costs will no longer be assignable directly to electric distribution, correct?

A Correct.

Q Okay. And would you agree with me that because both electric distribution and gas distribution customers utilize these services, that the new proposal better reflects cost causation?

A Yes. I would agree with that.

Q Okay. But again, to be clear, I know we just talked about this, the 55/45

allocator is based on the total customer account, correct?

A Correct.

Q And it is not based then on how much work is being done for electric customers versus gas customers, right?

A Based on service applications, yes.

Q It is not based on the number of applications being processed, instead it is based on that number of customers total, right?

A Correct.

Q So the allocation is not based on the total utilization of the service and the total amount of time that PG&E puts into it?

A Correct. Because we don't track how the EV costs are allocated when the customers are calling in.

Q Okay. Great.

Hypothetically, if you did track those customers, and let's say after a year of study you determine that 90 percent of the calls were coming from new gas customers and only 10 percent were coming from new electric customers, that utilization, that 90/10 utilization hypothetical, would not be reflected in your 55/45 allocator?

A Could you restate that one more

time?

Q Sure. Let me try to state it a little bit differently.

Your 55/45 allocator would not capture a utilization of these services that was split 90/10 gas to electric?

ALJ LIRAG: Let's clarify that is a hypothetical. The 90/10 is a hypothetical?

MR. SCHLESINGER: Correct.

THE WITNESS: Correct. It would not capture that, hypothetically.

BY MR. SCHLESINGER:

Q Again, I believe you already stated the reason we are going with 55/45, because we don't track those numbers, right?

A Right.

MR. SCHLESINGER: Thank you. I have no further questions.

ALJ LIRAG: Let's take care of the redirect, Ms. Liotta, so Mr. Schlesinger would be done.

Any redirect, Mr. Gallo?

MR. GALLO: No. Thank you, your Honor.

ALJ LIRAG: Let's proceed then with Ms. Liotta. Any cross exhibits?

MS. LIOTTA: Just one.

ALJ LIRAG: Off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

While we were off the record an exhibit was distributed. This is a cross exhibit, and we will identify it as Exhibit 38. This will be PG&E's Response to FEA's Data Request 001, Question 42. That is Exhibit 38.

(Exhibit No. 38 was marked for identification.)

ALJ LIRAG: Please proceed, Ms. Liotta.

CROSS-EXAMINATION

BY MS. LIOTTA:

Q Good afternoon, Mr. Dashner. I'm Rita Liotta with FEA.

A Good afternoon.

Q I only have a couple of questions. Could I refer you to your rebuttal page 9 lines 5 through 6 specifically?

A Okay.

Q You state that PG&Es's spending pattern shows its 2020 forecast for new business expense is reasonable. Is that still your statement?

A Yes, it is.

Q If you look at the cross exhibit that was just handed out, Exhibit 38. At the bottom of the first page this response shows

the amounts authorized by the Commission for new business for the years 2013 through 2018, correct, that chart?

A For expense; that is correct.

Q Right. Thank you.

If I can have you turn to page 36 of Mr. Smith's testimony, direct testimony. That has not been marked yet.

ALJ LIRAG: It hasn't been identified yet, but it will be submitted for identification once we get to Mr. Smith's direct testimony. We will refer to it simply, however Ms. Liotta referred to it.

Do you have it in front of you?

THE WITNESS: What page is this?

BY MS. LIOTTA:

Q It is page 36, the chart at the top of the page.

A Okay.

Q So this chart basically summarizes the historical actual amounts from your direct testimony and the amounts authorized by the Commission. Do you agree that this chart shows a pattern of underspending for five out of the six years?

A I do. But there was extenuating circumstances in the years 2017 and 2018 that artificially drove our expenses down.

Q Okay. So in your opinion, do you believe that the amount PG&E has requested for 2020, if it were allowed, that it would be spent?

A Yes, I do.

Q Is there a possibility that underspending could occur for the test year?

A Our forecasts are based off of customer -- forecasted customer demands, so by that there is a possibility that we could underspend.

MS. LIOTTA: Thank you, Mr. Dashner. I have no further questions.

ALJ LIRAG: All right.

Mr. Gallo probably doesn't have any redirect?

MR. GALLO: No. Thank you, your Honor.

EXAMINATION

BY ALJ LIRAG:

Q I have one question that may not be in your area. For this WRO, does PG&E receive customer advances for construction or anything that PG&E has to perform, if you know?

A We receive what is known as an engineering advance.

Q These are from customers?

A From customers. What I am not

certain on if it is specific to just new business or it also includes WRO. I believe it is for both programs.

Q For either.

Do you know what PG&E does with this amount that it receives as a customer advance?

A It gets applied to the cost of the customer for that project, but it is to cover the upfront estimating of the job in the event the customer does not want to move forward after we have spent resources.

Q It is not applied until construction, if there is any construction that begins; is that correct?

A At the time we issue the customer contract, at the time that customer pays the contract, that engineering advance would be credited towards the total cost. So it is already paid. The customer prepays for their project, then we construct it.

Q Does PG&E recognize the amount as having been earned already once it is paid, even though construction, or whatever the service is for, hasn't been conducted yet?

A Yes, we do.

Q So it is considered earnings? It is not set aside in a positive account, or

something?

A I don't believe so.

ALJ LIRAG: Okay. No further questions along that line.

Do you wish to --

MR. GALLO: Can I confer with the witness?

ALJ LIRAG: Let me check with Commissioner Randolph and ALJ Lau if they have any questions.

Commissioner Randolph, any questions?

COMMISSIONER RANDOLPH: No. Thank you.

ALJ LIRAG: ALJ Lau?

ALJ LAU: No questions.

ALJ LIRAG: You can confer.

Off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Did you wish to clarify something?

MR. GALLO: Yes, please, your Honor.

REDIRECT EXAMINATION

BY MR. GALLO:

Q Mr. Dashner, ALJ Lirag asked you if the electric advance moneys that were received by PG&E from customers was considered earned, and you said you

thought -- you believed yes. Do you wish to clarify that answer?

A Yes. I'm not certain of the answer to that.

ALJ LIRAG: Okay. I figured a different witness would be able to answer that, but thank you.

So I think let's take up Ms. Liotta's exhibit. Ms. Liotta, you move for this to be admitted?

MS. LIOTTA: Yes, your Honor.

ALJ LIRAG: Any objections?

MR. GALLO: No.

ALJ LIRAG: Hearing none, 38 is received into the record.

(Exhibit No. 38 was received into evidence.)

ALJ LIRAG: You are excused, Mr. Dashner. Thank you. Let's go off the record.

(Off the record.)]

ALJ LIRAG: Let's go back on the record.

Mr. White, please raise your right hand.

TERRY WHITE, called as a witness by PG&E, having been sworn, testified as follows:

THE WITNESS: I do.

ALJ LIRAG: Please state your name, probably spell your last name, as well, and then provide a business address.

THE WITNESS: Terry White, W-h-i-t-e, 6111 Bollinger Canyon Road, San Ramon, California.

ALJ LIRAG: All right.

Let's take care of this exhibit right now. We'll identify it as Exhibit 39-C, and this contains confidential portions from rebuttal testimony on -- is this for electric distribution and gas distribution only or other topics, as well?

MR. OUBORG: Your Honor, my understanding is it's various witnesses' cross exhibits who had confidential material in their rebuttal, and this is the -- the confidential version of those materials.

ALJ LIRAG: Do these cover only exhibits that we have identified so far or other exhibits, as well?

MS. GANDESBERY: Other exhibits.

MR. OUBORG: Yeah, I -- I believe it's a few exhibits that have not yet been identified.

ALJ LIRAG: All right. So these -- let me restate and say this exhibit contains various confidential documents from various

rebuttal testimonies.

And what is the nature of the confidentiality of the documents that are in this Exhibit 39-C?

MR. OUBORG: So your Honor, it varies. The -- the materials contain declarations which explain with respect to each item what the basis is for confidentiality for -- I could give examples, but I -- I --

ALJ LIRAG: All right. The parties been made aware that you were going to submit this document containing these confidential exhibits? I'm calling them confidential for now.

MR. OUBORG: Your Honor, I believe that parties who have executed an NDA, or non-disclosure, with PG&E have already received the confidential materials that are -- are in that exhibit.

ALJ LIRAG: All right. Do these parties include TURN and Cal PA?

MS. GANDESBERY: Yes, your Honor.

MR. OUBORG: I believe they do.

MS. GOODSON: Yes, your Honor.

ALJ LIRAG: Is that -- let me just confirm that that's correct. Ms. Shek --

MS. SHEK: Yes.

ALJ LIRAG: -- or Ms. Goodson?

MS. SHEK: Yes, your Honor.

ALJ LIRAG: Any objections to treating these documents as confidential?

MS. GOODSON: No, your Honor.

MS. SHEK: No, your Honor.

ALJ LIRAG: All right. So we'll take your word for it. We'll examine it. But, unless I overturn the ruling, we will accept that these are confidential documents, and will retain the numbering Exhibit 39-C, denoting that this is confidential.

(Exhibit No. 39-C was marked for identification.)

ALJ LIRAG: So I think we have scheduled cross from Ms. Goodson, and we had talked that you were going to work around the confidential portions of it.

MS. GOODSON: That's correct, your Honor. I'm going to ask the witness a couple of questions about a document that was original -- a different document that was originally provided to me with confidential information, but PG&E prepared a redacted version, and that's the only one I'll be using. So I won't be referencing confidential information at all.

ALJ LIRAG: All right. And we'll rely on -- is it going to be Ms. Gandesbery?

MS. GANDESBERY: It's Mr. Ouborg.

ALJ LIRAG: All right. We're going to rely on you, Mr. Ouborg, to let us know if something is about to be mentioned that is in this document.

MR. OUBORG: Fair enough.

ALJ LIRAG: All right.

MS. GANDESBERY: That's redacted.

ALJ LIRAG: All right. With that in mind, so -- so okay. That's for that exhibit and for the questioning. And so --

MS. SHEK: Your Honor?

ALJ LIRAG: Yes, Ms. Shek.

MS. SHEK: We have one exhibit from the Public Advocates Office --

ALJ LIRAG: Okay.

MS. SHEK: -- that we would like to mark, and PG&E has agreed to not object to it, and it is an NTSB report that Mr. White has referenced in two sections of his rebuttal --

ALJ LIRAG: Okay.

MS. SHEK: -- in Exhibit 15 --

ALJ LIRAG: Okay.

MS. SHEK: -- originally PG&E-17, on pages 5-12 and 5-20 --

ALJ LIRAG: All right.

MS. SHEK: -- and I think everyone has

copies of it right now.

ALJ LIRAG: We'll identify it for now, right now. We'll take up the admission at the end of the cross for Mr. White. Is that fine?

MS. SHEK: That is fine, yes.

ALJ LIRAG: All right. So we'll identify that right now. So Exhibit 40 will be the cross-examination exhibit by Cal PA, and it's the document that's described by Ms. Shek.

Could you describe it again, Ms. Shek, for the record?

MS. SHEK: Yes, your Honor. It is a NTSB report --

COMMISSIONER RANDOLPH: Excuse me. Counsel, can we all use the microphones?

MS. SHEK: Sure.

COMMISSIONER RANDOLPH: Thank you.

MS. SHEK: It is the NTSB report, the preliminary report and then the final report. It is referenced on two sections of Mr. White's rebuttal testimony, Exhibit 15, originally Exhibit PG&E-17.

ALJ LIRAG: All right. So these include excerpts from Mr. White's testimony?

MS. SHEK: Yes.

ALJ LIRAG: All right. So that is

Exhibit 40.

(Exhibit No. 40 was marked for identification.)

ALJ LIRAG: Exhibit 41 will be PG&E's response to TURN data request 82.

(Exhibit No. 41 was marked for identification.)

ALJ LIRAG: And then Exhibit 42 will be a letter to Columbia Gas of Massachusetts and NiSource.

Could you explain a little bit about this exhibit, Ms. -- or I'll let you do it during cross-examination.

So this will be Exhibit 42.

(Exhibit No. 42 was marked for identification.)

MS. GOODSON: Thank you, your Honor.

ALJ LIRAG: All right. Let's -- yes, Mr. Ouborg.

MR. OUBORG: Your Honor, what was the first -- I got it. Okay. So the response to data request 82, that is 40 --

ALJ LIRAG: 41.

MR. OUBORG: 41. And then the letter is 42?

ALJ LIRAG: And the letter is 42.

MR. OUBORG: Okay. Thank you.

ALJ LIRAG: All right. Please proceed,

Mr. Ouborg.

MR. OUBORG: Thank you, your Honor. Can everyone hear me? Thank you, your Honor.

DIRECT EXAMINATION

BY MR. OUBORG:

Q Good afternoon, Mr. White.

A Good afternoon.

Q Mr. White, I would like to confirm the testimony you are sponsoring in this proceeding.

In what has been marked for identification as Exhibit 10, formerly PG&E-3, are you sponsoring all of Chapter 5, asset families measurement and control and compressed natural gas stations, and the workpapers for Chapter 5, which have been marked as Exhibit 12?

A Yes, I am.

Q And in what has been marked as Exhibits 15, formerly PG&E-17, and 39-C, formerly PG&E-28, are you sponsoring all of Exhibit 15, Chapter 5, rebuttal testimony on asset families measurement and control and compressed natural gas stations, the documents in Appendix A to that rebuttal, and a portion of what is now Exhibit 39-C, which contain confidential documents related to your rebuttal?

A Yes, I am.

Q And in what -- what have been marked as Exhibits "P" -- Exhibits 26 and 27 and cover PG&E's submitted errata, are you sponsoring the pages of those errata that pertain to the testimony that we've just identified?

A Yes, I am.

Q And finally, are you sponsoring your statement of qualifications?

A Yes, I am.

Q And Mr. White, were these materials prepared by you or under your supervision?

A Yes, they were.

Q And -- and do you have any further changes or corrections at this time to -- to your testimony?

A No, I do not.

Q Are the facts contained in these documents true and correct, to the best of your knowledge?

A Yes, they are.

Q And to the extent they represent your opinions, do they represent your best professional judgment?

A Yes, they do.

Q Thank you.

Your Honor, Mr. White is now

available for cross-examination.

ALJ LIRAG: All right. Ms. Goodson.

MS. GOODSON: Thank you, your Honor.

CROSS-EXAMINATION

BY MS. GOODSON:

Q Good afternoon, Mr. White. My name is Hayley Goodson, and I'm one of the attorneys representing TURN in this proceeding.

A Good afternoon.

Q Do you have before you your rebuttal testimony, which has been identified as Exhibit 15?

A I do.

Q Please turn to page 5-12.

A Okay. I'm there.

Q At lines 16 to 18, you discuss a significant loss of containment event due to OP which occurred in Massachusetts in September 2018. Do you see that?

A Yes, I do.

Q And what does OP mean?

A Over pressure.

Q Thank you. And with this reference, are you referring to the series of explosions and fires on the Columbia Gas of Massachusetts system in the Merrimack Valley in Massachusetts?

A Yes, I am.

Q And in footnote 36 on that page, you reference and provide an Internet link to the National Transportation Safety Board, or NTSB, preliminary report on that event. Do you see that?

A Yes, I do.

Q And do you have before you Exhibit 40, which is a cross-examination exhibit presented by the Public Advocates Office that contains, actually, two reports from the NTSB?

A Yes, I have that.

Q And please turn in that document about halfway through until you reach the beginning of the preliminary report.

A Is there a page?

ALJ LIRAG: I think that page number is at the bottom. The preliminary has no page.

MS. GOODSON: The cover page has no page, that's correct.

ALJ LIRAG: So it's after page 7.

THE WITNESS: Okay. I'm there.

BY MS. GOODSON:

Q And is this the report you referenced in your testimony?

A Yes, it is.

Q Please turn to page 4 of the

preliminary report. And in the first full paragraph, the report states: "The cast iron low pressure distribution system was installed in the early 1900s, and had been partially improved with both steel and plastic pipe upgrades since the 1950s." Do you see that?

A I do.

Q And on page 5 of the preliminary report, the second to last paragraph, the report states: "According to Columbia Gas, all cast iron and bare steel piping in the affected neighborhoods will be replaced due to system integrity concerns." Do you see that?

A Yes, I do.

Q And do you have Exhibit 41 before you? This is PG&E's response to TURN data request 82. It's the thick one.

A Yes, I do.

Q And the very last page, if you would please turn to it -- and was this response prepared by you or under your direction?

A Yes, it was.

UNIDENTIFIED TELEPHONIC SPEAKER: Do you want to hear what a hearing sounds like?

ALJ LIRAG: Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Please proceed, Ms. Goodson.

MS. GOODSON: Thank you.

Q Mr. White, I had just asked whether you prepared this response or it was prepared under your direction.

A Yes, it was.

Q And in PG&E's response to Answer 3, Question A, Part B, PG&E explains that it has no known cast iron piping in its gas distribution system. Is that correct?

A That's correct.

Q So please turn back to -- hopefully, you still have it open, but Exhibit 40, page 5, where I just was pointing you to, the second to last paragraph.

A I'm there.

Q And the report states the new system will consist of high pressure plastic mains with regulators at each service meter to reduce the line pressure from the main to the required pressure. Do you see that?

A I do.

Q And please look for me at your rebuttal testimony, Exhibit 15, at page 5-21, 5-21.

A Okay. I'm on that page.
Q And at lines 22 to 24, you state the 1,330 HPR, high pressure regulator, stations that are in scope for the 2020 GRC already include regulators at customers' meters. Do you see that?
A I do.
Q And please turn to page 5-12 of your rebuttal testimony, lines 18 to 23. I'll give you a second to glance at those.
A Okay.
Q And here, you refer to a letter sent by Senators Edward Markey and Elizabeth Warren to Columbia Gas of Massachusetts and NiSource about the Massachusetts over pressure event. Is that correct?
A That's correct.
Q And at lines 21 to 22, you state the senators identified an issue with the integrity management plan on devaluing the threat of rare events or events that have not yet occurred. Do you see that?
A I do.
Q And are you referring to Columbia Gas' distribution management integrity plan?
A Yes, I am.
Q And in footnote 37 on that page, you provide a link to the senators' letter.

Is that correct?
A Yes, I do.
Q And do you have before you the document that's been identified as Exhibit 42?
A Yes, I do.
Q And is this the letter to Columbia Gas of Massachusetts and NiSource from Senators Markey and Warren that you cite to in your rebuttal testimony?
A Yes, it is.
Q Please turn to page 2 of that letter.
A Okay. I'm there.
Q And you see the heading called "Threats to Cast Iron Low Pressure Systems"? The heading in bold.
A Yes.
Q And the first paragraph states: "The integrity of the system is particularly critical in Massachusetts, as more than 500 miles of Columbia Gas' pipeline and main are cast or wrought iron. This material is particularly vulnerable to damage from over-pressurization, which can cause cast iron to crack or cause connections to disintegrate." Do you see that?
A I do.

Q And in the third paragraph, the senators refer to Columbia Gas' DIMP, or Distribution Integrity Management Program. Is that correct?

A Yes, I see that.

Q Uh-huh. And they state that Columbia Gas' DIMP fails to specifically identify the separate needs of low pressure systems and how they might face different and more serious threats than high pressure systems. Do you see that?

A I do.

Q Okay. Keep the letter open, please. We'll come back to it.

But, I'd like you to also turn to your rebuttal testimony, Exhibit 15, at page 5-20.

A Okay. I'm there.

Q Starting at lines 27 and continuing to the next page, you explain PG&E has modified its LP, or low pressure, district regulators to include slam shut devices as a secondary OPP, or over pressure protection device, to mitigate potential OP events as a result of a past over pressure event in Alameda in April of 1994. Do you see that?

A I do.

Q So is it correct that PG&E has

1 considered and responded to particular needs
2 of low pressure systems separate from its
3 high pressure systems?
4 A Yes, that's true.
5 Q And back to the -- the letter from
6 senators Markey and Warren, please,
7 Exhibit 42, same page we were on before,
8 page 2, do you see the section heading
9 "Devaluing the threat of rare events or
10 events that have not yet occurred"?
11 A I do.
12 Q And this is the conclusion you
13 quote in your testimony, is that correct, on
14 page 5-12?
15 A I did reference this section, yes.
16 Q And in discussing this issue, the
17 senators state that Columbia Gas' DIMP
18 assigns a value of zero to events that have
19 not yet taken place, making it impossible to
20 properly evaluate potential future risks. Do
21 you see that?
22 A I do.
23 Q And to your knowledge, does PG&E
24 assign a risk value of zero to events that
25 have not yet taken place in its DIMP?
26 A I cannot speak to how the DIMP
27 model operates or works. That's not done out
28 of my department. But, I can speak to the

risk model we used to establish risk across gas ops and broadly across PG&E, and in that, we do look at events that have not happened within PG&E and look at events that have happened across the country that are high consequence low likelihood events.]

Q Thank you. And please turn back to Exhibit 41, which is PG&E's Response to TURN Data Request 82. I'll direct your attention to the first page. I just want to confirm that you prepared PG&E's response to Question 1 or it was prepared under your direction; is that correct?

A That's correct.

Q In response to this question, you provided TURN with reports associated with investigations that PG&E conducted for recent overpressure events; is that correct?

A That's correct.

Q Please turn to Attachment 1, which starts shortly after the response to Question 1 and specifically pages 15 -- no, excuse me, page 14 of Attachment 1.

A Okay.

Q And Attachment 1 is the report associated with the root causal evaluation report associated with a line rupture in 2016; is that correct?

A No, that's not correct.

Q I apologize. I should have asked you that before.

A It's associated with an overpressure event that happened in that year.

Q I'm sorry. The redaction on the cover page was confusing, but thank you for that clarification. All right. So back to page 14. This has the beginning of a table called Recommended Corrective Actions.

Do you see that?

A I do.

Q And in the cause number column, RC1, is that Root Cause 1?

A Yes, it is.

Q And I'm looking at the corrective actions associated with Root Cause 1. I'll give you a moment to look at those before I ask my question.

A Go ahead.

Q Am I understanding correctly that this list of corrective actions would mitigate the risk of overpressure events at a number of large-volume customer regulator stations, not just this single location, but these are more systemic types of corrective actions?

A In some cases that is true. In this case that is true. So other root cause recommendations may be specific to a station.

Q Yes, thank you. But this one, RC1, Root Cause 1, this could be broadly applied and confer broad benefits?

A Yes, ma'am.

Q And has PG&E implemented these corrective actions?

A Yes, these have all been completed.

Q And please turn to the next page, 15. This is a continuation of the same table, Recommended Corrective Actions. I'll direct your attention to the last row on this page. And does CC1 refer to Contributing Cause 1?

A Yes, it does.

Q And this contributing cause is Non-Existing Post-Construction Inspection Practices; is that correct?

A That's the title of it, yes.

Q And the recommended corrective action is to develop a post-construction inspection practice prior to gas introduction into the system; is that right?

A Specifically it's performing a video inspection.

Q And is this the kind of corrective

action that would provide broad benefits, not just benefits specific to this facility?

A Yes, ma'am.

Q And has PG&E implemented this corrective action?

A Yes, ma'am, we have.

Q Please turn to close to the end of this document, Attachment 8.

Can we go off the record for just a moment?

ALJ LIRAG: All right. Off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Please proceed, Ms. Goodson.

MS. GOODSON: Thank you.

Q Mr. White, I've asked you to look for Attachment 8 to PG&E's Response to Question 1.

I'm sorry, can we go back off the record?

ALJ LIRAG: Back off the record.

(Off the record.)

ALJ LIRAG: Back on the record.

Please continue, Ms. Goodson.

MS. GOODSON: Thank you, your Honor.

Q Mr. White, do you have page seven of Attachment 8 before you?

A I do.

Q And I'd like to ask you about CC1 in this table. This is a corrective action table. Does that stand for Contributing Cause 1?

A Yes, it does.

Q And this corrective action is to increase awareness of management of change process. Do you see that?

A Yes, I do.

Q And is that the kind of corrective action that would have broad benefits, not just specific to this facility?

A Yes, it would.

Q And I have the same question about CC2, Contributing Cause 2. This corrective action is to review current alarm HIHI settings and consider lowering to allow more reaction time between HIHI alarm and maximum allowable operating pressure or MAOP.

Do you see that?

A I do see that.

Q Is that the kind of corrective action that would have benefits beyond the specific facility?

A That corrective action was specific for this facility.

Q Thank you. And for CC1, has PG&E

implemented that corrective action?

A I need to look at the unredacted version.

ALJ LIRAG: Let's go off the record.

(Off the record.)

ALJ LIRAG: Back on the record.

THE WITNESS: Yes, that has been completed.

MS. GOODSON: Thank you, Mr. White. I have no further questions.

ALJ LIRAG: Commissioner Randolph.

COMMISSIONER RANDOLPH: None.

ALJ LIRAG: Any redirect, Mr. Ouborg?

MR. OUBORG: Could I confer with the witness for a second?

ALJ LIRAG: All right. Let's go off the record.

(Off the record.)

ALJ LIRAG: Let's go back on the record.

Mr. Ouborg.

MR. OUBORG: Thank you, your Honor. We do have one redirect question.

ALJ LIRAG: All right.

REDIRECT EXAMINATION

BY MR. OUBORG:

Q Mr. White, earlier in your cross-examination by TURN's counsel, there

was a significant discussion of the Merrimack, Massachusetts, event and its causes and the analysis of those causes.

Would you care to elaborate on PG&E's lessons learned from that event in our review of the cause of that event?

A Yes. I would be happy to. PG&E has done a significant amount of work to understand the causes and drivers associated with overpressure events. In Workpaper 575, there's a table, Chart Number 2, that shows that a number of large overpressure events, which are actually the highest risk events, is flat to increasing.

We've done a fair amount of work to reduce the number of overpressure events, as is stated multiple places, but the weakness we still have is what's called a common mode failure. That's what happened in Massachusetts. That's referenced in the final NTSB report that was put on the record. The third recommendation to NiSource is to identify sources of common mode failure events.

We've done a significant amount of research and the single most effective mitigation for that is to install a secondary overpressure protection device. That's been

done in Europe. That drives the number of OP events near zero, also in my rebuttal and in my testimony it states that.

So what we learned from Merrimack was that common mode failure events are real and are something that should be managed.

Q Thank you.

ALJ LIRAG: Any questions off that, Ms. Goodson?

MS. GOODSON: No, your Honor.

ALJ LIRAG: Any questions, Ms. Shek?

MS. SHEK: No, your Honor.

ALJ LIRAG: All right. Let's take up the cross exhibits. I suppose we're not done with 39-C yet, right, because this testimony covers.

MR. OUBORG: No.

ALJ LIRAG: Ms. Shek, do you move for Exhibit 40 to be admitted into the record?

MS. SHEK: Yes, your Honor.

ALJ LIRAG: Any objections?

(No response.)

ALJ LIRAG: Hearing none, Exhibit 40 is received into the record.

(Exhibit No. 40 was received into evidence.)

ALJ LIRAG: Ms. Goodson, same question for 41, 42.

MS. GOODSON: Yes, your Honor.

ALJ LIRAG: Any objections?

(No response.)

ALJ LIRAG: Hearing none, Exhibits 41, and 42 are received into the record as well.

(Exhibit No. 41 was received into evidence.)

(Exhibit No. 42 was received into evidence.)

ALJ LIRAG: Thank you, Mr. White. You are excused.

Let's talk about the schedule tomorrow. So we have the two panels for Mr. Abranches and Mr. Kerans for one and then Mr. Abranches again and Mr. Menegus. So that will take us to about noon. Is there a sense of probably doing a few exhibits for witnesses with no cross until probably 12:30ish and then we'll just have a half day.

MS. GANDESBERY: That would be acceptable, your Honor. We don't have anyone else to bring in in the afternoon on Wednesday.

ALJ LIRAG: All right, Ms. Goodson, is that fine? I see the cross is from TURN so you're the representative even if you're not conducting the cross.

MS. GOODSON: That is fine with us.

ALJ LIRAG: All right. So it will be

scheduled for around half day. We'll have no lunch break. We may have two morning breaks instead just to make sure we finish with the two panels tomorrow and then to see what else we can do with respect to exhibits that are ready to be identified and received into the record.

MS. GANDESBERY: Thank you, your Honor. We also wanted to let you know that we have been trying to fill up Thursday. You recall that we had electric witnesses who are at their emergency operations --

ALJ LIRAG: Correct.

MS. GANDESBERY: They're not able to come. We were not able to really fill Thursday. We've talked to all the parties extensively and it's either conflicts for the witnesses or conflicts for the attorneys who are planning on crossing the witnesses. And so Thursday we were going to propose to have no witnesses.

ALJ LIRAG: This is this coming Thursday?

MS. GANDESBERY: Yes.

ALJ LIRAG: All right. Let's take that up tomorrow, but that sounds fine. I just want to see a revised schedule to make sure we're still on schedule. I assume there's

some cross that's waived. But let's see the schedule tomorrow and then we'll take that up.

MS. GANDESBERY: Thank you, your Honor.

ALJ LIRAG: But it looks like -- I mean I have no issues as long as we're still on schedule to finish.

MS. GANDESBERY: And we are.

ALJ LIRAG: All right. Any other remarks?

(No response.)

ALJ LIRAG: All right. Thank you, everyone. We're adjourned. We'll be in recess until tomorrow at 9:30. Off the record.

(Off the record.)

(Whereupon, at the hour of 3:17 p.m., this matter having been continued to Wednesday, September 25, 2019, at 9:30 a.m., San Francisco, California, the Commission then adjourned.)

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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, ANA M. GONZALEZ, CERTIFIED SHORTHAND REPORTER NO. 11320, 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 SEPTEMBER 24, 2019.

I FURTHER CERTIFY THAT I HAVE NO INTEREST IN THE EVENTS OF THE MATTER OR THE OUTCOME OF THE PROCEEDING.

EXECUTED THIS SEPTEMBER 25, 2019.

ANA M. GONZALEZ
CSR NO. 11320

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

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I FURTHER CERTIFY THAT I HAVE NO INTEREST IN THE EVENTS OF THE MATTER OR THE OUTCOME OF THE PROCEEDING.

EXECUTED THIS SEPTEMBER 25, 2019.

ANDREA L. ROSS
CSR NO. 7896

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, REBEKAH L. DE ROSA, CERTIFIED SHORTHAND REPORTER NO. 8708, 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 SEPTEMBER 24, 2019.

I FURTHER CERTIFY THAT I HAVE NO INTEREST IN THE EVENTS OF THE MATTER OR THE OUTCOME OF THE PROCEEDING.

EXECUTED THIS SEPTEMBER 25, 2019.

Rebekah L. DeRosa

REBEKAH L. DE ROSA
CSR NO. 8708

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