Hey, good afternoon to the last session before the final session. So welcome to Minimizing Ignition Risk through Improved Asset Health. In this breakout session, like others you may have been in, we are going to be using Slido, so we're asking for your audience participation. And at the end of the session, we'll be sharing some of the results with you and discussing those.

In order to participate, please scan this QR code here. It is also on the second page of the booklet as well if you need to find that. If you're here in the Hilton, please do get on the local Wi-Fi. It will make the speed of Slido much, much faster for you.

And once you get on, please identify your industry affiliation. We actually use that in the questions to segment the answers. You'll see actually our first question will be segmented, so you'll see responses by the different segments in the audience. For each question you'll have three minutes to answer.

A couple of final announcements before we begin. One-- if you'd like to get in touch with any of the presenters today or throughout the conference, you may email innovation@pge.com. That channel is being monitored.

And also at the end of today's session, please stay seated and we will be livestreaming the final presentation from the ballroom in this room as well. So please stay seated at the end. And with that, please welcome Andy Abranches and John Eric Thalman, who will run today's session.

[APPLAUSE]

Hey, can you guys hear me?

Yes.

OK. So just want to-- first, we'll start off with a big thank you, because it's 4:00 and you all came to our session. And then the second piece of it is, if you guys--

Nah, it's not on. OK.

Can you guys hear me now?

Yeah.

I can hear myself. Andy Abranches and what I was saying-- first of all, big thank you if you came to our session. We feel very appreciated.

Mr. Jon Eric Thalman-- he's the tall, bald guy. I'm the short, fat, bald, Indian guy. I'm going to bore the hell out of it with these questions.

[CHUCKLING]

[INAUDIBLE]

Hey, hey, hey, don't take-- you know, but-- no, we're going to make this a fun session. It's not interactive, unfortunately. But like the person said, if you want to talk to us, happy to do it after that. Happy to reach out on LinkedIn, however it works, so we can continue to facilitate this conversation.

We're going to be focusing on this topic of-- it lists it very complicated here, but just think of it as real-time monitoring. And I'll go through it in more detail. That's our little faces.

Let me give you the context that I want to set before we get into, why does real-time monitoring make sense. Why are we interested in the topic? And I'll close my presentation with that. But first of all, when it comes to wildfire-- as well as it comes to a number of other risks-- we're not dealing with climate change. We're dealing with a changed climate and we're trying to figure out how to live through it.

The slide on this shows you what was the drought pattern in California in 2020, 2021, and 2022. And if you're colorblind, this is green. This is a bright red.

It was heavy drought. It was intensely heavy drought that poses an extreme danger to our assets-- from vegetation falling into lines, vegetation failing, and our lines also getting stressed by that heat. So that's that period.

Then you get a period of a wet winter. So now you had stressed assets, a wet winter. and those assets, through that stress of the rain and the snow, also fail. And we landed up in 2024. And those are real pictures from July 5, 2024.

The fire risk-- sorry, this mic is-- the fire risk in California was off the charts. We have just lived through-- we're not completely done with 2024. We have just lived through effectively the worst wildfire season that the western United States has ever faced by any measure. And those measures will keep coming out.

In the face of this, how does a utility act? How does the utility position itself? That's really what we're hoping to cover over here as some of our learnings up to this point. But we really want to pull out information from you.

On real-time monitoring-- I'll start over here briefly. We have an expert, Erich Scheunemann, right there. Actually, we've got a bigger expert-- the INDT team right there, there, back there.

Fundamentally, what early fault detection is doing is, it's sampling using RF frequencies. It's sampling what is happening on the grid such that it can spot a weak spot on the grid, some sort of anomaly on the grid, and then send the signal to you that, here is the location of that anomaly. Jon Eric, anything you want to add to that?

No, that's a good-- I mean, that's one technology. We're going to get into talking about-- then been deployed. But--

Right. So then at PG&E, we've deployed it on eight circuits, 200 locations in '24. And then we've committed to deploy it in another four locations, 325 locations, in 2025. And this shows you an example of what it finds.

It finds small things as you can see, up there where a broken tie wire-- and this shows you the detection energy before, the detection energy after you fixed it, how does that play out-- so you can see the differences. It also shows you things like this, this broken conductor. It shows you bird caging.

Now this is really, really small bird caging. A lot of people may say, why do you care about that? We care about that because that's where the fault is starting to form. And if we want to fix things it's best to get the indication of when it's starting so that you have sufficient time to plan, execute, and get that work completed.

But you also have a bigger problem. You've got to triage across an entire system. Which one goes first?

So getting that knowledge about where is very important. Getting that knowledge to the degree is also very important. The cracked insulator-- I don't think that picture needs much explanation. I should rely on Jon Eric. No--

No, it's all good.

And then broken insulator up there. We've built an internal tool. It's called the GDAT tool. I've forgotten what GDAT stands for, but it's the GDAT tool. Someone is going to help me? No. Grid data analytics--

Technology, I think.

Don't make shit up.

[LAUGHTER]

That's my IT guy. He's going, well, I better have something for GDAT. No, it's cool. It's cool.

So that's one technology. Another technology-- and we've got members of the Gridscope team here-- is that device. They were out there in the hallway. You locate it on your pole.

It basically senses RF, but it also senses vibration. It picks up sound when something happens. And it tells you that something has impacted your lines at this location so that you can go out there and react. Now that's very critical.

On Gridscope, for an example-- yeah, I'll go back to this. It wasn't in the dress rehearsal. But you see I put this up here, and I put this date on July 5 that heat event.

Well, on one of our circuits-- a fairly remote circuit-- on July 5 at 11:30 at night-- and if you're by the Gridscope booth, you can go see that. We had a tree that came into the line. We didn't have an outage. We had a troubleman who we dispatched because of the Gridscope device.

We dispatched a troubleman at around 9:00. And what that troubleman told us was-- he shone his flashlight. And right over there, he saw arcing and sparking on that. An outage had not happened--

Yet.

Yet-- is the point. And the key point is, at that location-- and this is where location intelligence is so important. If sparks had fallen on the ground and started a fire-- Jon Eric's team runs the wildfire risk models. They run the consequence models so we can backtest and see how dangerous that location was at that point in time.

It could have been an ignition that resulted in one of the largest fires. So the largest fire this year in California was the Park Fire. From that location, given the vegetation density and the winds at that time, it could have become a fire like the Park Fire. And so that's what it catches.

What happened? The troubleman basically turned the power off. So those customers on that circuit lost power. They came back in the morning. They removed the tree.

Other than the outage that was felt temporarily for a few hours, there was no outage. But most importantly, there was no ignition. So that one event caused us to say, you know what? Given the situation, we deployed 10,000 of those Gridscope devices this year because of that one event.

The other technology is the third one, which is our SmartMeter devices. Sorry, we're going fast. As the SmartMeter devices get better-- the new generation of Riva meters are not really out yet.

They're going to come. But as they come with this capability, again, we're looking at real-time monitoring. So these are the three we've put up there. Any additions?

I just want to say that this is just the beginning. Any failure that we're going to see on the grid, there's a tell. There's something.

If we can get the right view to see it ahead of time and take action, the scenario that Andy just walked us through can be how we run the electric grid. It can be a key part. I think it's a key part of-- we talk about a dynamic, resilient grid. And there are other areas. So the open question here that we're going to get to is, where else is this being used?

It's not just electric grids. People are running systems. People are managing assets and they monitor them. What are they using? How do they do this? And so that's the open question.

As Jon Eric framed it, our question-- and this is where you scan and answer the question. So what other real-time monitoring systems exist that we may not be aware of? Because we want to crowdsource from your knowledge what exists. And we're specifically looking for something that detects anomalies as well as-- this is pushing it-- as well as doing a prediction of when is the failure going to happen. When is that little bird caging going to result in a failure?

Because it's me looking at the-- I'll give you the analogy. The analogy is me getting on the scale, and the scale tells me I'm obese. And that's great, but it doesn't tell me when I'm going to have a heart attack. Well, I want both. If you're going to tell me I'm obese, you better tell me when I'm going to kick it.

[LAUGHTER]

Anyway, please answer the question if you don't mind.

[MUSIC]

These two guys are really serious out there. Yeah, I mean, look at their face. They're going like, OK. Oh, that's just-- oh, OK. Sorry. Oh, I'm good?

OK.

Oh, hold on, [INAUDIBLE] clear.

Building on that-- the first thing is, what real-time technologies can we put on the grid for anomaly detection? Now here's the second step we want to take. What you're seeing up here is an existing map.

It's an existing system. We have it in place. We use it every day, in fact. It has the entire distribution system. It has the transmission system.

But this little picture down here is really indicative-- these numbers, as you can see, those are the weather stations. So we have weather stations-- around 1,600 weather stations in our service territory in and around our grid. And we use those weather stations to improve the risk modeling and to improve the weather predictions that we do.

And what you're seeing up here is a view of the current AI capability on those weather stations at the edge. And that's already being used. We're using it today.

But what is the human element? What are we looking for here? We're looking for the cross correlation of that information about the weather stations as things are getting worse, as things are progressing, in this particular location at this terrain at this time.

Well, what is my real-time monitoring telling me? Is my real-time monitoring combined with weather stations going to give me an added layer of intelligence about what I should do as a grid operator? And that's the question. What tools, technologies, integrate weather data with AI and machine learning processing to make real-time monitoring much more sensitive to the changing weather patterns? They play music now, right?

[CHUCKLING]

I'm learning.

[MUSIC]

I want to highlight that part of the drive behind this question is that we're dealing with a dynamic risk. Wildfire is not going to be the same in the future as it was in the past. And that's true for all the risks from a climate change perspective.

So the incorporation of real-time data is really key. Because we can do all the great predictive models based upon the past. There's always going to be that tail risk item that we haven't seen. And so we need all the more, the focus on real-time monitoring, knowing the condition of the system, knowing what's going on. And the incorporation of meteorological data is just central to that. So--

OK. Everyone's done with their screen time, right? OK, cool. The last one I'm going to cover is going to push the envelope. I've got to build the story before you understand why I'm trying to do it and why it's important.

What happens? In any utility today, a storm will hit. Keep the wildfire piece separate. A storm will hit our service territory.

It will damage-- you know, you'll see trees on the lines. This is no risk. It's wet and all that. Trees on the lines, it knocks down stuff.

And we will deploy crews. Depending on the size of the storm, we'll deploy internal crews or we'll deploy mutual aid crews to try and get a speed of response. So that's like this-- severe weather event, a rapid response, and expedited restoration.

Well, what does expedited restoration means? It means that crew-- whether from another utility or our utility-- is going to go on that section of the grid and replace it with what? They're going to replace it-- not to the latest standards. They don't have the time.

They're there like, OK, I need to get customers back up. We always watch that reliability. Customers in a storm want their power back on. So you do expedited restoration.

Well, you do it. You're using the equipment you have in your truck or in your yard, or that was supplied to you by a supplier in the recent. You do it with a crew that may be unfamiliar with the particular standards at that particular location. They're doing it to the best-- they're following our standards. We're trying to guide them.

The other piece of the human element that people miss is that they're doing it generally-- sometimes they're doing it in the middle of the night with lights shining up when it's raining, or when there's snow. I don't know about you, I can't fix crap in my garage with great lights on and with all the tools and a magnifying glass. And these guys are working up on a pole trying to fix something.

The reason I say that is because we sometimes come back to it during this period, where we come back and we look at what has been built up there to try and get a sense to why. We want to take that information and put it in our asset management records. We want to check, hey, is the work good?

Well, after the work is done and the nice insulating tape or the covers are all done-- Jack, if you can look inside and tell me exactly what's going wrong. And there's an incipient fault that may be there-- slight workmanship issues. Or you've put a different transformer or you've put something else in that place that was there before.

Your asset records now say X. What you have on your system is Y. Well, that inherent difference is actually the introduction of more wildfire risk. Because what you think you have out there, what your risk models are telling you you have out there, is not true anymore.

And so you're trying to do it. You're trying to incorporate this delayed tracking because this process is long. This process may end three days after the storm. This process can go on for six to eight months.

And another storm will come. And people wonder like, hey, why is-- I mean, I used to design CT scanners. And I used to get really irritated with the electric utility. Your configuration control is rubbish.

But then when you run a crew and you see that, you go, OK, now I understand why. You barely get through a storm and another rain event hits, and then you get through that. And by the time the next season is on you, you're trying to plan work for the future.

And what's in your system and what's on your grid is different. And it's always different, unfortunately. So here's the question-- and this is where it's pushing the limits-- which is, are you aware of tools, technologies, vendors that can provide analytics to tell us the make, model, and vintage of what's currently installed after a significant weather event? And here's what I mean by that.

I've got Jennifer over there going-- she's smiling. She's going, we do inspections in SCE and we inspect it with drones. And Jennifer, I appreciate that, but drones are coming too late.

[INAUDIBLE]

I want it by the real-time monitoring that I have on the system. You are reading basically the power flows. You are reading the vibrations. You should be able to tell me-- or maybe in the near future, maybe not today, but hopefully next year or year after that. If all those NVIDIA GPUs are that great, put them to use and tell us the make, model, and vintage.

That's what I'm asking. Is there any folks out there doing that? Just give us so we can continue to pursue this. Sorry, I was just teasing you. That's the question.

[MUSIC]

Yeah, this is working perfectly.

OK, there's one more thing just before we finish up. Because we need to get your name, your company, your organization. We'll take pictures so we can track you.

[LAUGHTER]

Put you on TikTok-- no!

[INAUDIBLE] TikTok.

Just kidding. Nobody's going to watch this TikTok. This is going to be a real boring--

[SNICKERS]

Are we good? OK. I'm going to close. And Jon Eric and I going to just tell you a story about what happened in the 2024 fire season-- what happened. Now, there are a few folks like Bobby [? Harlan ?] that says, please don't repeat that nightmare that we went through in July and August.

The 2024 fire season-- I mentioned in the beginning that this is-- as we're looking at it now, it's one of the worst wildfire seasons. But we entered the year with a nice, long, rain period. It went all the way to January, February, March. April, we're still getting a little bit of rain.

And then abruptly the weather starts to change. What happens in California? You get all that rain. You have this nice, beautiful, green California.

The hills of California look nice. They almost look like you're an island. You've got that nice, green grass crop that has risen up.

Well, the heat sets in. As the heat sets in, now you've got the grass crop drying out, creating fine flashy fuels. And that's a risk we understand. We understand that comes, you get grass fires, that's the situation.

But as that heat intensity changes, now you start to see basically the heat stress on the vegetation really climb. The heat stress on the equipment-- well, that heat stress on the equipment is not coming just then. It's coming because, well, all that nice rain also added stress during the winter period. And so your assets are stressing in different locations because it's impossible to predict what the intensity of the wind or the rain was or what the heat is at a particular location, even with 1,600 weather stations.

The risk-- really what happened in our service territory. This is acres burned on July 8 in California relative to that five-year average. And this is ignition incidents all across California. Not just ours, all ignition incidents. That's CAL FIRE data that we're reporting.

So what happened? We had that heat wave that I talked about, that heat wave on the 4th of July weekend. If you were in California, I guarantee you felt that heat wave. It didn't matter whether you were sitting in Pacifica or you were sitting in Half Moon Bay or down even up in Eureka. You felt that heat wave.

And it was intense because it was about eight days. We called an event. We called a capacity event, which means that given the heat, people are going to be using the electricity, so there could be a capacity shortfall. We called this thing because of the heat event.

You could also have the situation where you have a number of failures happen because of that heat event. And we called an EOC. Because given this heat, the probability of a large wildfire picking up is dangerous. So we activated our Emergency Operations Center to monitor this and react in real time. But from an ignition perspective-- which is something that I watch and Jon Eric watches very, very closely-- in a very short period of time, we had a pretty large number of ignitions.

And I've got to divert a little bit and show you that little thing that's maybe a bit hard to read on the top. We have a really sophisticated fire model that tells us what's the risk in a particular 0.7 by 0.7 hexagon. What is the risk of that hexagon, on a scale of 1 to 5? 5 plus means you take the PSPS, on a scale of 1 to 5.

When it crosses the third-- R3. We call it R3. At that point, all the catastrophic fires-- meaning all the-- where all fatalities, where all structures burned 100%.

When you look back at a history of 20,000 fires, they have all happened in R3-plus conditions. And 99.5% of acres burned really have happened in R3 plus conditions. That's why that threshold is important.

But we saw, in a very short window, our ignition count spike. We had nine ignitions due to vegetation, three ignitions due to equipment, and two ignitions due to avian contact. On the vegetation, that's broken up.

So you might say, hey, vegetation is a particular species or whatever. There's two categories over there. One is on this one. That was basically trunk failure, and this is branch failure. Trunk failure really means the whole tree fell, and branch failure means a section of the branch fell on the line, causing damage.

When we did the root cause coming back as to what exactly happened, however you cut it-- from what caused increased ignition, failure to ignition rate, what caused increased conductor to a failure of ignition, what caused increased avian transmission ignitions, what increased vegetation caused ignitions-- across the board, it was just the overall environment. I'm getting the signal of time, so I can't go individually in each one. But it was generally the environment.

And I say that because that's why real-time monitoring is becoming more and more apparent to us-- that it's not a question of doing it on a few things. No, you've got to put it on the entire 1,000 circuits. If you looked at my earlier slide and I said, hey, we have it on 30 circuits and 20 more, that is not the scale that you're going to have to deal with. But it's pointless putting it all out there if we don't get the other capabilities that we asked about.

What did we do? And I know I'm running out of time a little bit, but we've got 11 minutes, so give me some leeway. Our vegetation management teams, they cleared an additional 50,000 poles.

What do I mean by that? This under the pole clearing-- why is that effective? Approximately 50% of all ignitions. So when an ignition happens on a distribution line or even on a transmission line, the ignition doesn't happen up on the line and then jump magically into the forest.

No, it happens, it drops slag to the ground. There's some vegetation there. That vegetation catches, and then that leads its way into the forest where the fuel is a little bit [INAUDIBLE], and then now you're off to the races with the wildfire.

Well, when you realize that 50% of the ignitions happen at the base of the pole, you ask yourself the question, why don't I clear around every pole? Well, there's 650,000 poles that PG&E has in our service territory in the high fire threat districts-- 2.2 million across the board. So we triaged which ones using our risk models-- where to clear.

They normally clear only under non-exempt poles. Non-exempt poles means poles that have equipment that will not spark. We cleared 50,000 of exempt poles in the highest risk areas.

But that's how we had to react. And that's not the position we want to be. We want to be proactive. And we didn't have real-time monitoring, so we reacted.

Normally, we do 70,000 poles. In one month, we made them do 50,000. And that comes at a price when you do that.

The second thing-- I talked about those Gridscope devices. And Tim and his team can stand up-- I've got Kelly over there. We rolled out-- we went from 2,000 devices deployed to, by the end of middle of September-- actually end of August, pretty much-- 10,000 devices on the system protecting us.

And lastly, we have these enhanced power line safety settings. We looked to that and adjusted some settings on three circuits. Because we go, crap, if this happens next year, we better have additional capability at our fingertips.

So this is what we did. I say this because this is the reaction of what you have to do when something happens, and we'd prefer not to be in that position. So that's exactly what happened. Sorry, Jon Eric, I know we're running on time and--

It's all right. It's all good.

And if you wonder why I was humorous, I have two boys who both are comedians and--

[CHUCKLING]

Yeah-- [INAUDIBLE]--

You can see where they get it.

--the life and the stuff. So anyway, with that.

Great. And as the slide here says, is please do stay in this room for the last session instead of moving to the ballroom. Let's go ahead and flip over to the Slido.

These were the most surprising responses that we got for the first question, which is, what other real-time monitoring systems exist that PG&E might not be aware of? There were everything from edge-based swarm drones to solar blind UV cameras, radio frequency monitoring that's listening to equipment, as well as ultrasound injection and analysis of overhead asset vibration signature changes. These are the surprising answers.

And then on the next slide, we actually have segmented by the different types of people who are answering this question. There's a lot here. Can't go over all of it given our time. But for the two of you, I'd just love to know, with such a diverse range of real-time monitoring solutions, what factors do you use to prioritize which ones to implement when selecting technologies?

Well, you can test it in a lab bench. You can test it in a test environment at a lab or you could test it on the utility. And when you're talking about-- hey, we've developed something, this is how well it looks. I like to see where have you tested it. And of course, as the technology matures, you're working through that. But that's the key thing I look for.

The other thing is, there's different conditions. The conditions we saw this summer were very different than what we'd seen before. Andy said it was the worst fire season we've seen in a while. That's without having a big utility-caused fire. But we see the conditions, and so a monitoring device might work under one condition better than another. So there's also that to consider.

All right, great. Let's go ahead and move on to the next question. So this was, what tools and technologies integrate weather data with AI/ML processing to make real-time monitoring more sensitive to changing weather patterns?

These are the four most common responses that came out. And these technologies, they offer various scales of weather data-- from hyperlocal camera feeds to broad satellite observations. With this kind of varying of this type of data, how best can PG&E balance this multi-scale data to ensure accurate, real-time responses without overwhelming processing capabilities?

Yeah, I used to work at Northrop Grumman. Northrop Grumman basically produced satellites. It produced ground-based sensors. it produced war fighting aircraft. It produced ships.

There's a concept called C4ISR for overall situational awareness. But it's very expensive when you do it in the defense sector. It comes at a price. Now new companies like [INAUDIBLE] and others are doing a really good job. But this remote sensing integration at a price point that a utility can absorb and utilize and deploy is something that I think-- we just got to understand more and figure out how to do it.

The other one is-- and I'll go back to the answer for the last question, which was, you've got to think about whatever technology we have. We have to put it so that it can be done at scale. But if you do it at scale, you've got to do it for that utility.

In our case, our utility's particular-- we don't have a loop system, we have a radial system. Here's the make, model, and vintage of what we have. How does it fit in with what you have and maximize the use of the assets you have?

That's another big consideration. Because you've got a lot of different vintages out there that also have a lot of capabilities. Trying to maximize that out is another play.

Great, all right. And then for the last question, which tools and technologies and vendors can provide the analytics that tell us the make, model, and vintage of what is currently installed after a significant weather event? And these were the most surprising responses. Personally, I like the first one. I used to be a vice president at TaskRabbit, so I love that.

[LAUGHTER]

There's some bias in selecting--

Who was--

I didn't put--

Somebody put that in!

[LAUGHTER]

Anyway-- but these are all great and very creative. So I think when you're looking at these creative answers, what are the biggest challenges or opportunities do you see in integrating these unconventional methods to create seamless, accurate, digital twin after a disruptive event?

I think-- understand, utilities have control centers. PG&E has a hazard awareness warning center. But it's becoming very clear to us that we need to have something that we call a real-time monitoring center. That needs to be staffed 24/7.

The 24/7 real-time monitoring sensor we have is actually sitting on the second last row in the middle, and his name is Tim Bedford because he gets every email from Gridscope. But no, I'm not trying-- I'm not joking. That's the human kind of like-- he'll get it, and then it also dispatches to a couple people. But you've got to invest in that piece to say, I need that real-time monitoring to maximize the use of that investment.

It's very similar to the cameras. Think about it. We have these AI cameras now, but that signal goes to Cal Fire's dispatch. They quickly review it and they dispatch an aircraft.

And as it gets better, they'll dispatch-- in fact, we were yesterday at the Red Sky Summit in San Francisco, where we're talking with vendors like Rain that are making drones. What they will do is, real-time monitoring will come in. It'll dispatch. A drone will already take off, give you further information-- ready with fire suppression capability. In this case, it will be real-time monitoring such that we can respond to a section of the grid.

The other piece I want to say is, there's a lot of ideas over here. Please understand our goal is to just understand the ideas. Not to critique it, not to say it's going to work or not going to work, just understand it and look for possibilities.

Then we put our utility hats on and say, this system is really good. What the hell are you thinking? No-- and I know our industry is a hard one to deal with in terms of the cycles. But the concept behind today and the concept behind what we were just showing is to really gather the feedback so that we can go through it systematically.

Yeah, definitely. And that's really where innovation comes from. Innovation comes from all the different answers that we hear from everybody. So thank you for that. And with that, I'll turn it over to you to give us closing statements. And then again, please stay in this room for the final session.

Thank you. Thanks for your interest. I feel like I wish we had more collaboration here and more talking, maybe sit down and just nerd out a little bit on what's going on. Hopefully that can happen in the future more.

Every time I get together with people that are looking at these problems, whether it be wildfire or resilient grid or climate or grid of the future-- however you want to label it, there's so much energy and excitement in it. It's the reason I chose to be in this career, and I suspect it's the reason you chose to be in this career too. So look forward to collaborating with you, and it's really exciting. So thank you. Andy.

[APPLAUSE]

That's it. No!

[LAUGHTER]

Can you answer questions?

Do we have time for a question or no?

50 seconds.

Not on mic.

Not on mic.

[INAUDIBLE]

I'll meet with you afterwards.

All right. We'll be around afterwards. Yeah. OK. As we sit--