

PG&E CFO and SoCal Ed CEO
on
Strategies,
Wildfire and
Otherwise

Conversations with PG&E CFO Carolyn Burke
and Southern California Edison CEO Steve Powell.
Both co-moderated with PUF's Steve Mitnick
and Guidehouse's Chris Rogers



he State of California is innovative and of great interest to those in the energy and utilities industry. That is why all eyes are on the utilities in the Golden State, to find out why and how these leading utility companies are making strides in doing business in a changing environment.

There are so many issues to take on, from grid hardening and resiliency, to increased demand from data centers to wildfire mitigation including managing Public Safety Power Shutoffs, to changing culture around these big issues. No one ever dreamed that shutting down power would become a necessary lifeline, and that is a tough change in mindset for utility workers. But it's all being done and more.

To help understand how California utilities are grappling with these major transformations, Public Utilities Fortnightly's Executive Editor Steve Mitnick went to the top and talked with two leaders, joined by Chris Rogers from Guidehouse. PG&E CFO Carolyn Burke and Southern California Edison CEO Steve Powell have much to say on important issues.

Carolyn Burke PG&E CFO

PUF's Steve Mitnick: How would you describe PG&E's strategy to grow and best serve its constituencies?

Carolyn Burke: Our strategy includes an important yet small word – “And.” Our strategy is about serving both our customers and our investors.

Back in June we hosted an Investor Update. We unveiled the Power Pyramid, which represents our strategy.

The pyramid has a base layer, which is our foundation of safety. Safety is foundational to our strategy. This foundation includes the physical and financial protections we've put in place, and that the state has put in place over the last few years.

On the physical side, we have invested significantly to prevent wildfire ignitions. We've invested in more than fifteen hundred weather stations with cameras throughout the high-threat fire districts.

We have meteorologists on our staff, and use advanced fire-safety, fire-science models. We've increased our inspections and repairs and examined our vegetation management program. The big game changer has been Enhanced Power Safety Settings, or EPSS, which de-energizes the system within one tenth of a second, as soon as anything hits the wires.

Last year, we added a new Downed Conductor Detection technology to our toolkit, which has eleven hundred new devices on the wires in our system. We're adding another four hundred this year. Our most powerful tool is the Public Safety Power Shutoff or PSPS, which is also a tool of last resort.

We've invested billions of dollars into preventing wildfires, but just as important are the post-ignition protections. We have forty-five two-person teams – ninety people – in Safety and Infrastructure Protection in place.

We also have Public Safety Specialists, who coordinate across all the agencies in response to any kind of fire. We have

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our Hazard Awareness Warning Center, which operates twenty-four hours a day, seven days a week, three hundred sixty-five days a year.

These are the layers of safety protection we've put in place, and they've proven effective. We have had an active fire season this summer and have not had a single fire of consequence tied to any of our equipment. While

we've had a small number of PSPS events, it's been thousands of people, not millions, and they've been without power for less time. We also notify customers well in advance.

Our teams are always monitoring the weather and fire conditions and can forecast potential wind events seven to ten days out. As they monitor the potential event, they can pinpoint it to a specific area on our system.

They'll then work closely with impacted towns and counties, identifying vulnerable populations or critical customers like hospitals, which need back-up power during the PSPS. The teams will work closely with these customers to secure that back-up power.

They're working with them ahead of the shutdown, so everyone's prepared. The power comes back smoothly once the weather has passed, we've patrolled our equipment, and it's safe to restore power. Those are the physical safety protections.

Let's talk about financial protection. California has put in

financial protection in the form of legislation, AB-1054, which passed in 2019 and became effective in 2020. It required the establishment of a state Wildfire Fund, which has twenty-one billion dollars in claims-paying capacity.

It's currently been funded up to fourteen or fifteen billion dollars so far. It was funded by the IOUs in the state, as well as through customer contributions. It is what has kept utilities investable in California because in the case of a catastrophic wildfire it provides three levels of protection.

First, it provides liquidity, so we have access to the funds. In the event of a catastrophic wildfire, we would be responsible for the first billion dollars of cash settlements, and we can tap the fund for anything over a billion.

Second, it established a prudency standard. We're required to have a valid safety certificate in place – which we do every year – and follow our approved wildfire mitigation plan. Pre-AB-1054, the burden was on us to prove we were prudent.

Finally, there's a cap on the liability after an investigation of the fire. After claims have been settled and paid, the CPUC will conduct a prudency review to determine whether the utility will have any obligation to reimburse the fund.

If it does, it could be partially or fully liable. But there's a cap on this liability which is twenty percent of our transmission and distribution rate base, which is currently 4.1 billion dollars. AB-1054 changed the game for investor-owned utilities in California.

My team and I are also working hard to ensure PG&E strengthens and maintains a healthy balance sheet. We're non-investment grade at our parent company today, but we've seen actions by the credit rating agencies over the last year where we are now just one notch below investment grade.

Standard & Poor's and Moody's both gave us an upgrade earlier this year. We're still two notches below investment grade at Standard & Poor's but only one notch below at Moody's.

Moody's has us on a one-year cycle and we're expecting them to review us again in February. For Moody's, it's primarily about keeping our customers safe through another wildfire season.

After the safety foundation in our Power Pyramid, we focus on what we call our Simple Affordable Model. We have a significant need for capital investment in our system.

We estimate our capital investment will increase nine-and-a-half percent in the near-term future, year over year. That's a lot for our customers to absorb. How do we offset that nine-and-a-half percent?

First, we look to reduce our operating and maintenance spend. O&M expense goes directly to the bill, whereas capital is amortized and spread out, which is more affordable for customers.

PG&E is currently fourth quartile across all utilities with our O&M spend per customer. We have a target of reducing our O&M spend by two percent every year.

Our capital to O&M expense ratio started the year at 0.8.

The average for the utility sector is 1.6; it was 1.4 in 2023, so our peers are getting better. We're spending eighty cents of capital on every dollar of expense.

While we know we have more work to do to get better, we have made improvements. Over the last two years, we reduced O&M by 3% in 2022 and 5.5% in 2024. We're focused on what more we can do to offset the bill.

The other big enabler in our Simple Affordable Model is load growth. We're seeing that growth through the adoption of electric vehicles, enabling EV infrastructure, and data center growth.

Additionally, in California, we have an energy transition-supportive policy from the Governor's Office with a focus on building electrification. As the load grows with EVs, data centers

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and building electrification, we are able spread the cost of the system across more customers, making it more affordable for all customers.

It's also up to us to ensure we're bringing on beneficial load. As long as we bring in more revenue than the cost of that load, we can lower the cost to our core customers.

That's the challenge with data center load – making it beneficial to core customers. We're thoughtful about ensuring

that when we bring in data centers, it is beneficial to all our customers and lowering their bills.

The third enabler of the Simple Affordable Model is efficient financing. In addition to achieving investment grade, we're looking at Department of Energy loans and grants and optimizing our capital structure.

If those three enablers offset the nine and a half percent of capital investment growth by two percent each, our customer bills will stay within the rate of inflation.

While we'd like to see it even lower, that's our strategy. Safety and protection first, and the Simple Affordable Model that enables resiliency.

Once we do that, we can begin to deliver a decarbonized energy future for California at the lowest societal cost. We want to eliminate the green premium by being as affordable as possible.

PUF: Resiliency is a necessary expense for the utility.

Carolyn Burke: Yes, it is. We're looking at undergrounding ten thousand miles on our system. It's eight percent of our total system in terms of miles, and miles only in the highest wildfire

threat districts. We believe undergrounding is the right answer for our customers for two reasons.

First, undergrounding is both a safety and a resiliency play. Second, it is also more affordable by eliminating the need for vegetation management in those areas. A big piece of our O&M expense is vegetation management.

Our last two winters had significant events with power going out in those remote areas. If the lines were underground, those customers would still have had power. We would not have had to send storm response staff to remote areas, which is costly, and is an expense that could be avoided.

The safety and resiliency play plus less vegetation management and less storm response cost translates to affordability.

Guidehouse's Chris Rogers: I remember the first PSPS versus what you're comparing to today. It's like a sledgehammer versus a scalpel. It is amazing what the teams have done. I know it's not been an easy road in any way.

Carolyn Burke: It is impressive. We would like to not shut off the power. But safety comes first. When we have dry conditions and wind events, we know the most powerful tool in our toolkit is the PSPS.

Around the fourth of July, we had about ten days of hundred-degree weather. We had a wind event and one PSPS event.

Recently, we had two PSPS events. The number of complaints from customers was significantly lower.

The early warnings and working closely with the communities ahead of time has made a huge difference. People recognize that this is a safety event, and that's beginning to resonate.

Chris Rogers: The role of the energy transition or transformation at large, how specifically is that flowing into the PG&E strategy?

Carolyn Burke: It's specifically flowing into strategy. The Governor's Office and the State of California are aligned in terms of what they want from an energy transition over the next few years. They see utilities playing a significant part in that transition, and there are smart people in this organization working to solve tough problems.

Electric vehicle growth in California is tremendous. We believe there's a real value proposition in EVs that is only beginning to unfold.



We're looking at undergrounding ten thousand miles on our system. It's 8% of our total system in terms of miles, and miles only in the highest wildfire threat districts.

We've got so much solar. We have too much solar in the middle of the day, and yet we don't have solar at the end of the day when the sun goes down. How do we raise the belly of the duck curve to solve that?

In addition to adding more storage to the grid, we think electric vehicles are the way. With the right pricing signals in place, people can charge at the right time of the day to serve that load at the end of the day without building more power plants or having to add that cost to customers.

We're estimating that our grid is at forty-five percent usage capacity. Why can't we get that up to eighty or eighty-five percent capacity by using electric vehicles? Our CEO Patti Poppe wants to enable this and make it happen.

Take for instance, the recent announcement by the Oakland school district, which has gone all electric with their school buses. They run those buses during their morning and afternoon routes and charge them in between and at night. They can also

send excess energy back to the grid. We need more of those examples.

Last year, twenty-eight percent of new car purchases in our region were electric. In Santa Clara County, it was around forty-one percent. That shows the confidence buyers have in the infrastructure here.

We need to continue to build out that infrastructure and take advantage of it for the energy transition. It's key to our overall strategy and to California's, as well.

PUF: What are the essential building blocks to successfully execute this strategy?

Carolyn Burke: I have done a couple of turnarounds, albeit at a different scale than here at PG&E. I joined NRG a month after their emergence from bankruptcy in December of 2003, when CEO David Crane joined. The company moved from Minneapolis to Princeton and transformed significantly.

I was in finance, as head of FP&A reporting to the CFO, Bob Flexon. Then, when Bob Flexon became CEO of Dynegy, I joined him there. We put the company into bankruptcy and brought it back out.

I have learned there are three legs to any turnaround. The first is financial. The second is organizational/strategy. The third is culture.

The most important leg of any turnaround is culture. Fixing the balance sheet is not that hard. With a bankruptcy – Chapter 11 – there's a playbook. You can also cut costs quickly.

But if you don't do it the right way – with the people in the company coming along with you – it's not sustainable and not successful. To be successful, leaders must talk to people, give them tools, and shape the culture. Learn what's important to coworkers and what ideas they have for our success in the long term. The people closest to the work know how best to solve the issues.

Patti has a playbook she's brought here, which is impressive. She successfully used the Lean System at CMS and brought that here to PG&E. Our PG&E performance playbook has three components: Lean, what we call Breakthrough Thinking, and our safety management system.

We've trained over three thousand leaders on a deep set of Lean skills, and our goal is to train all twenty-eight thousand people. In the Lean Operating System, there are five plays – visual management, operating reviews, problem solving, standards, and waste elimination.

It's a way of thinking about continuous improvement, not being satisfied, and using process mapping to get to the root cause of the problem.

It's fixing problems, setting a standard, and making sure the standard is met. Once you regularly meet that standard, you reset and improve the standard. Then say, "All right, let's beat it again. Let's continuously improve."

This is the way to cost improvements. Once you make a process efficient, and eliminate the waiting time and duplication of steps, you have also eliminated frustration from folks' jobs and caused joy. The cost structure will come down almost on its own.

If instead the focus is solely on cutting costs, there is less joy. When you talk about becoming more efficient, folks get more excited, more enrolled. We talk a lot about joy at work here at PG&E. Bring joy, then the cost just comes out. It's a dream for the CFO.

Patti also brought Breakthrough Thinking to us, which is not letting the past define our future. Instead, we asked questions like, "What needs to be true for X to occur?"

Our safety management system helps us keep safety at the heart of everything. Everyone and everything are always safe. That's one of the stands we've taken at PG&E. Those are the three components of our performance playbook, and they are critical to our success.

We have one other saying, which is Performance is Power. If we perform, then we have power to influence. Regulators and customers will trust us, if we perform.

Chris Rogers: How would you evaluate these greatest challenges in front of you and how should those be faced and addressed?

We're estimating that our grid is at 45% usage capacity. Why can't we get that up to 80 or 85% capacity by using electric vehicles? Our CEO Patti Poppe wants to enable this and make it happen.

Carolyn Burke: We're at the beginning. We're at end of the third inning. It is about being patient. Implementing sustainable changes doesn't happen overnight. Shaping culture takes a while, and our regulators want to see that change.

Our regulators have made hard decisions over the last year, for us and our customers. They approved a GRC that was significant in size, the first four-year GRC they tackled.

They just approved SB 410 for new electrification projects. They also approved an interim rate on two of our big wildfire mitigation filings.

They've made big decisions and are holding us to task. We need affordability to be front and center of everything. They need to see another year of costs coming down.

The biggest challenge is being patient and steadfast and implementing sustainable change. This is not about a quick fix but doing what's right for our customers.

It's all about rebuilding trust with our customers. We want to win their hearts and minds through our performance. We want to earn their trust and earn the right to serve them. ○

Steve Powell

Southern California Edison CEO

PUF's Steve Mitnick: As a foundational part of Southern California Edison's strategy, how do the company's wildfire mitigation efforts fit in?

Steve Powell: I'll start with our overall wildfire mitigation approach. In California, having experienced catastrophic fires in the 2017 and 2018 timeframe, it made many in the state, including us, relook at our wildfire mitigation and broader grid resilience approach.

We had fire mitigation plans. We had done work on our infrastructure, like pole replacement programs to harden against heavy wind, long before those fires happened. But it signaled an accelerating need to further harden the grid.

Since 2018, our wildfire mitigation strategy has focused on a few key pillars. First, and I call it the most sustainable solution over time, is grid hardening. We went out rapidly with a program to replace bare wire with covered conductor, hardening our overhead lines.

We have about nine thousand five hundred miles of overhead power lines in high-fire risk areas. So far, we have installed covered conductor on more than six thousand one hundred miles since 2018.

Second, I would highlight our operational practices such as vegetation management – including wider clearances around lines – and inspection programs where we look, on a risk-prioritized basis, at all our assets in high-fire risk areas. We're doing that from the air, using drones and cameras to take pictures, as well as from the ground.

Finally, a critical piece is situational awareness and running programs like Public Safety Power Shutoffs (PSPS), which have become an important tool for wildfire mitigation. Critical to helping us know where to target our PSPS is getting weather stations on the system to see what's going on, and high-def cameras for identification of issues.

We have installed more than one thousand seven hundred fifty weather stations, roughly one to four weather stations on many circuits in high-fire risk areas. That is so we can monitor real-time wind speeds, humidity, and other things that then go into artificial intelligence and machine learning-driven programs that help inform our forecast.

PSPS is the tool of last resort, but when the winds are high, it's dry, and in high-fire risk conditions, if the public safety risk is great, we may need to use it.

How does that fit into our broader strategy? These are all elements of how to make a grid more resilient and more reliable over time.

There's a lot of sharing that goes on with our peers across the industry through EEI's efforts around the broader wildfire-risk mitigation and solutions efforts. I co-chair EEI's CEO Task Force on Wildfires and this is one of the key pieces.

Some of what we've used for PSPS and targeting, such as the automatic switches and the sectionalizing of circuits, was born out of our prior grid-modernization programs. It's taking elements of older programs and applying them to the new problems like wildfire mitigation.

The same applies with tools we have in wildfire mitigation, particularly around situational awareness, looking at other hazards and how we manage those. Each of these programs, while stood up originally for a specific objective or two, in combination are making the grid more reliable, resilient, and ready for all the challenges ahead.

Guidehouse's Chris Rogers: How is SoCal Edison leveraging the combined experiences and learnings, innovations of other industry organizations or your peers, to continually improve these efforts?

Steve Powell: We have learned a lot from others who had already begun to apply wildfire solutions. We spent a lot of time benchmarking with utilities in Australia, for example, as well as our peers here in California and the broader West.

One of the nice things about our industry is we work to solve problems together and learn from each other. There are wildfire technology and solution consortiums, put together for information sharing all the way down to the technical level with engineers and experts.

We would visit Australia and meet with our peers. As we began to develop and deploy expertise, that then becomes the opportunity to give back to others going through something similar.

We have utilities come in and visit our Emergency Operations

Some elements in our wildfire mitigation portfolio, like covered conductor, are a good tool to improve reliability. Our circuits that have covered conductor are more reliable because it doesn't just protect against vegetation and other things contacting lines and causing ignitions, it helps avoid a lot of other faults. That grid hardening is part of reliability over time.



We're working to figure out how to come up with a federal solution to manage liabilities for utilities. That's a big piece. It's going to be a challenge to put it together, but it is critically important that utilities have that for the long run because the wildfire risk is only going to increase.

Center to see how we run PSPS. We share our grid-hardening solutions.

There's a lot of sharing that goes on with our peers across the industry through EEI's efforts around the broader wildfire-risk mitigation and solutions efforts. I co-chair EEI's CEO Task Force on Wildfires and this is one of the key pieces.

When we look at the growing need for wildfire solutions and risk reduction, it's not a California issue anymore. It's a broader issue, even beyond the West.

The first piece in those efforts two years ago was to ramp up information sharing. It starts with every utility understanding their risk profile, performing a risk assessment to know how big the wildfire risk is and what drives it.

The second piece is then understanding what tools to apply. Via EEI, we developed white papers and hosted webinars that laid out all the different types of wildfire mitigation tools that we and our peers are using across the industry. Every utility will deploy those differently, depending upon what their risks look like, but it's to understand the risk and risk assessment, understand the tools.

Companies that have wildfire risk should be developing wildfire mitigation plans. They may not call them that, but planning to manage that risk is the best practice.

Getting an agreement among our peers, what are the most valuable pieces and what are the things we would do in common, like a PSPS program, for example. That's a great opportunity to bring to our peers who are beginning the journey the experience of those of us who have done the wildfire risk reduction and mitigation efforts.

Chris Rogers: With that, all boats rise.

Steve Powell: It is an industry-wide challenge, and it can't just be one of us solving it because we are connected in so many ways. Wildfires that happen on the border between California and Oregon can take out transmission lines, and if those are happening during peak periods, that's a serious supply issue for California.

We have a vested interest in other utilities avoiding wildfires. The other connection is we all tap into the same insurance markets if we're not self-insured, for example, and face a lot of the same costs that get driven up significantly from wildfires and similar catastrophic events. There is a real benefit to solving this as an industry.

PUF: What do you see as the remaining challenges to tackle next year or the next couple of years?

Steve Powell: SCE has reduced the risk of a catastrophic fire starting from our equipment by eighty-five to ninety-plus percent

compared to before 2018. That still leaves, call it ten to fifteen percent, that we have to figure out.

The absolute amount of risk that remains, there's more work to do to mitigate that. We still want to get through our grid hardening efforts with six thousand one hundred miles of covered conductor already out there.

Between covered conductor and targeted undergrounding, we want that to be more than eight thousand five hundred miles. We have more work to do, and it's the hard miles.

One of the big efforts and important pieces that've been put in place in California are liability frameworks. From a policy perspective, it was getting AB-1054 in place, which set up a wildfire fund that can be tapped into when damages rise above the level of insurance we carry, assuming we have a valid safety certificate.

That's been a critical stabilizing piece. Utilities must be financially viable in the long run to help meet the needs of customers while driving decarbonization and the clean energy transition. Having that backstop helps us ensure our viability to support the needs of the state.

California is large and we can put resources into it, but that's not something that necessarily exists in other states. One of the challenges as an industry is to figure out how to provide similar liability management solutions that all utilities can tap into. It's probably a combination of limitations on those liabilities as well as funds that backstop the cost of the liabilities.

Solving that state by state would be challenging. We're working to figure out how to come up with a federal solution to manage liabilities for utilities. That's a big piece.

It's going to be a challenge to put it together, but it is critically important that utilities have that for the long run because the wildfire risk is only going to increase. People just five years ago thought this was a California issue and then fires happened in Colorado, Oregon, Hawaii and now Texas, New Jersey and New York.

The scope has expanded. Climate change is going to drive more of this to more places. We need bigger solutions at the federal level.

PUF: It sounds like when the nuclear industry came together and figured out a way to deal with large liabilities.

Steve Powell: There are certainly different models out there. Nuclear is one and flood insurance is another. There are models we can draw from to help put solutions together.

When you see the impact on a utility from a catastrophic fire believed to be caused by their equipment, utilities can face potentially billions of dollars of liabilities, which can destabilize the utility and constrain the ability to make investments in the grid needed for customers.

We've talked about the utility piece of it. I want to acknowledge that this is not just a utility challenge. Most fires don't start with electric utility equipment, they start from other forces. The

reason they're exacerbated is not just weather, it is how we manage our forests, where we build homes, and how we harden those homes. All those contribute to the ability to manage wildfire risk.

One of the key things we do is look at how we work with our partners at the state and the federal agencies to improve the overall management of wildfires. California has greatly increased its firefighting capabilities over the last five years.

Policies around how to harden homes and what wildfire mitigation looks like for homes. Each of those are critical pieces, and we have a vested interest in working with our partner agencies,

For the industry, I expect a lot more utilities in the West and in other parts of the country, applying many of those tools you see now in California. You'll see wildfire risk reduction there, as well. You'll see a PSPS program accepted and understood to be part of the solution.

our regulators, to make sure all those are in place to help manage the risk.

Chris Rogers: AB-1054 may allow California utilities to still be investable. Absent that, it would be a different story for financial viability. Where do you think So-Cal Edison and the industry overall will be in three to five years regarding wildfire mitigation?

Steve Powell: Three to five years from now, SCE will have done the proactive hardening in our high-fire risk areas that we had planned, and more than eighty-five percent of our overhead lines

will be hardened. The remaining portion is lower risk, and we'll harden those on an as-needed basis.

I expect that with all that hardening and continued refinement of our situational awareness, our PSPS events will be more infrequent. Over time, in areas where PSPS may still happen, you'll see investments by both customers and the utility in backup power and other things that allow them to ride through those events more successfully.

At that point, we'll be able to get a lot more efficient with the operations, the vegetation management, and inspections. The more data and information we collect, the more risk informed we are, the more targeted we can be, and we'll find ways to be more efficient.

There's a significant cost that goes into wildfire mitigation work. We know that costs need to come down over time, as well. We've spent five years learning and building quickly and the next three to five years are going to be about refining and getting more targeted.

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(Cont. from p. 13)

I expect significantly more risk reduction and less impact on customers as a result of more grid hardening as opposed to having to shut people's power off.

For the industry, I expect a lot more utilities in the West and in other parts of the country, applying many of those tools you see now in California. You'll see wildfire risk reduction there, as well. You'll see a PSPS program accepted and understood to be part of the solution.

At the same time, having that challenge met with alternative energy solutions. That's not just wildfire mitigation, but how the other solutions customers are adopting or that are coming on the grid can help.

In California, you'll see a lot more electric vehicles on the road. That also means more electric vehicles that, when not in use, could be connected to homes to help ride through events. As these solutions come together, it's all pointing toward a more reliable and resilient grid that we're building.

We will have a better set of mechanisms to manage the liability, because while you can reduce wildfire risk, with climate change continuing to evolve, the unmitigated risk may continue to increase. Major events can still happen, and we need a backstop, a combination of stronger insurance mechanisms, liability limitations, and some sort of fund that can be tapped into for hopefully rare events when they're needed.

They will provide the comfort and certainty that continues to make utilities investable and attractive and positions us to be central to the clean energy transition.

PUF: Your utility is planning up to about eight thousand miles with covered conductor, and it's an amazing story.

Steve Powell: Covered conductor is important. Utilities will

Covered conductor is relatively cost-efficient in the way we're doing it. Risks include critters touching lines, things flying into them, those sorts of issues, and it has been effective.

Where we've installed covered conductor, we have not had a fire ignition from a failure of that covered conductor to date.

have different solutions that make more sense for them. The covered conductor allowed us to deploy quickly and bring risk down very fast. We were able to do more than one thousand miles a year for a few years, instead of leaving the risk out there.

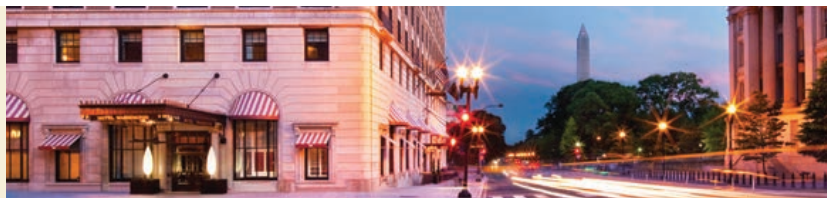
Undergrounding takes longer, and it's slower, so you're exposed in that sense. Covered conductor is relatively cost-efficient in the way we're doing it.

Risks include critters touching lines, things flying into them, those sorts of issues, and it has been effective. Where we've installed covered conductor, we have not had a fire ignition from a failure of that covered conductor to date.

Chris Rogers: To put that in perspective, up to eight thousand five hundred miles you've targeted for covered conductor and undergrounding is a third of the way around the circumference of the earth.

Steve Powell: It's been a heavy lift, and we had to divert a lot of resources to focus on the wildfire mitigation work. That's opposed to other reliability and infrastructure work and as we get near the end of this extensive grid hardening, we're able to turn resources back to some of our other programs. **PUF**

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A photograph of a wind farm at sunrise. The sky is a mix of orange, yellow, and blue. The wind turbines are white and stand on a grassy hillside. A layer of mist or fog is visible in the valley between the hills.

Lighting the Way for Our Clients to Lead the Way