

- When PG&E CEO, Patti Poppe, is asked whether we can afford to put powerlines underground, she has a ready reply, "How can we afford not to?"

- We are committing to bury 10,000 miles of lines starting in our highest fire threat districts in our highest risk areas. We start today.

- In 2021, PG&E began its most ambitious and important wildfire mitigation project ever committing to undergrounding thousands of miles of power distribution lines in the areas at the highest risk for a catastrophic fire. With the mission of adding layers of wildfire protection to our customers around California, undergrounding became the cornerstone of that commitment. As of 2025, we'll have reached the milestone of a thousand miles of line underground

- Undergrounding powerlines is a critical element in our wildfire mitigation strategy, as a company. It permanently reduces the risk of a wildfire ignition from that powerline, which serves to benefit all Californians, not just those that live in the highest wildfire areas where we're doing the undergrounding.

- Pinpointing locations for underground work kicks off a complex and lengthy process. The first step is using advanced technology to help zero in on the highest fire risk areas of our service territory.

- Where are there trees that could come into contact with our powerlines? Where are there other factors that would potentially drive an ignition to become a large wildfire in terms of the terrain, the vegetation around it, wind and weather patterns, et cetera. And so our machine learning models incorporate all that data to tell us where the highest risk areas are for us to go underground.

- And that's just the first step. While the benefits of undergrounding powerlines are clear, it's an in-depth process that can take time from start to finish. Coordinating with communities, customers and property owners is essential to completing this critical work.

- From the time that we first step foot on their property to the time that we take the very last pole out of the ground, it can be upwards of two years.

- To better set clear expectations with customers and communities, PG&E sends brochures such as this welcome kit to prepare them for the long process of undergrounding laying out the steps from the moment we step foot on their property to the time we complete restoration work. Prep work begins with crews surveying to determine where circuits can be undergrounded best.

- There's a lot of terrain you can cross going overhead that you can't just dig a trench and put it underground. And so we have to find the alignment that works. And oftentimes that takes us roundabout different ways and through private property. So that means we have to get lots and lots of easements from private parties.

- In some cases, an easement is needed for installing and maintaining new equipment. PG&E project team members work with property owners every step of the way. While the process of undergrounding varies, most electrical equipment, some still must remain above ground, such as above ground transformers and switches like the green boxes you see here.

- So we approach them early, we let them know where we're planning to place the equipment. We engage with them and identify if there's a better place based on their views. And we actually have interactive software where we can show them exactly what that equipment's going to look like when it's done.

- Once the plan is finalized with property owners, agency permits are secured and the construction work can begin. And the journey of converting from overhead to underground requires reworking the power supply that has been standing for decades. First up is digging. Civil crews will use heavy equipment to trench or bore. One of the tools PGE& uses to make undergrounding more efficient is a rock wheel, which chews through just about any surface with carbide teeth.

- It just spins like a wheel. It spins, drops right into the road, and it cuts deep into the road and gets a lot of production.

- There's also the Mastenbrook Bulldog Trencher from France and this Slinger truck.

- Both of those machines have kind of streamlined our production and in most cases, double, sometimes triple the production in one day. So the Bulldog Trencher it trenches just as fast as some of the other machines, but it keeps it cleaner loads into the trucks. The crews are able to stay right behind that thing as it goes. The Slinger truck brings in our backfill material, it puts it in smoother, more efficient so we can run harder and longer throughout the day because they're not having to physically level that, that material out in the ditch. It's laying it right in there perfectly and ready to go.

- Next, the conduit that will hold the electrical line underground, protecting it from the water is laid down.

- A conduit is basically a plastic pipe that we put into the trench. What this pipe, this conduit does is it protects our cable, our electrical wire that's gonna go through the conduit at a later time. So what that does, it protects it both from the outside elements, but also if someone were to be digging in for some reason in the future, they're gonna hit the conduit first and not an energized cable.

- Then comes the backfill.

- Once all the construction's done, then we'll do a final pavement project.

- Once a civil portion of the project is complete, temporary road repairs are made. Next up, the electric crews. This team focuses on feeding the underground and cable through the conduit, buried by civil crews and connecting all of the critical equipment. After all that work is done, a temporary power outage will take place, and it's time for energization to move the power supply for that circuit from suspended in the air to underground. That happens here inside a regional distribution control center where the work is remapped and tested to assure all of the new underground components are functioning correctly.

- Come to cut the customer over from the overhead facilities to the underground. So when we turn those lights off, now it's completely focused. It's business time. It's time to make sure that everything is installed as we designed it,

- And then the months of hard work come to the final moment, power safely coming into homes from an underground line while the power is being delivered from the newly installed underground system, sometimes those old poles are still standing outside after crews safely removed the electrical equipment that was on the top.

- The poles are topped once we underground all of our lines. And so customers will still see the telecommunications lines and the poles associated with those above ground

- Crews will remain in the area to clean up, restore roads to comparable condition, and to conduct repairs, tests, and inspection. As power lines are moved underground, they become more reliable and don't require the extensive and expensive tree trimming work that must happen year after year with overhead lines. Powerlines that are underground are also less susceptible to weather-related outages. As more miles of overhead power lines are moved underground, PG&E is getting more efficient to make that happen. And we've reduced the per mile cost from 4 million to approximately 3 million, and we are looking to continue and improve that trend.

- We're working hard every day to continue to bring that unit cost down for our customers. We're exploring innovation, ways to eliminate waste and be more efficient in the work that we do.

- The work of undergrounding is often very personal for our coworkers and contractors.

- Most of our people live in these areas, right? We love these areas. I grew up in the foothills outside of Yosemite. We love them. We care deeply about these communities. And the first thing I want you to know is that we're out here trying to make the community safe. And there's nothing more satisfying than seeing the lines buried and just knowing that there's one more spot where you know there's not gonna be ignition.

- You just get the feeling that PG&E is changing, that we have made a change in our assets for our customers, that's going to be permanent.

- We know that this is an extraordinary condition and an extraordinary time. It requires extraordinary solutions and extraordinary thinking and extraordinary people.