

A CONVERSATION ON CALIFORNIA'S ENERGY FUTURE

Building a better electric grid, for a better California

BY GEISHA WILLIAMS, CEO & PRESIDENT, PG&E CORPORATION

WHAT WOULD YOU THINK if someone told you there was a machine that could deliver limitless amounts of clean energy to everyone, while also taking in new supplies from anywhere? A device able to knit together constantly changing power flows from the sun and wind, and balance them with reserves stored in giant batteries, electric vehicles, even water?

Oh, and one that could enable all of the latest high-tech innovations for those who desire them, while also providing reliable electricity for people who simply want the lights to come on and their wall outlets to work, without thinking about any of those things.

Much of that machine is already in place, right now. And PG&E is working hard to modernize it and make it even better.

We call it the electric grid. It has been an amaz-

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ing engineering feat since the days of Thomas Edison. For more than a century, the basic concept—move power from the production plant to the consumer, as quickly and safely as possible—stayed pretty much the same.

Here in California, that's changing. Today's grid is becoming smarter and more dynamic, and enabling new players in the energy business. That's making a tremendous difference in the way we energize our modern lives, as well as helping

the state deliver on its vision for a cleaner, more sustainable future.

Already, nearly one-third of the electricity PG&E supplies to our customers comes from renewable sources such as solar and wind—four years ahead of California's bold schedule.

Even better, when you include all of our low- and no-carbon resources, nearly 70 percent of the electricity on PG&E's grid is now greenhouse gas free, making our energy among the cleanest in the nation.

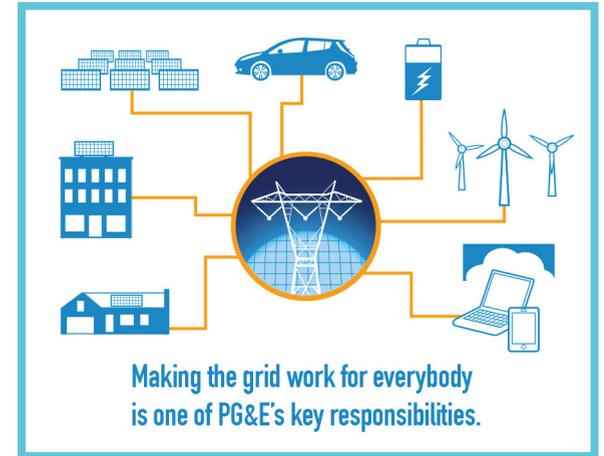
To us, that's a signal that the clean-energy challenge is entering a new phase—one of scale and systems, available to all.

The technology needed to power a low-carbon economy is increasingly available, and it's possible that the remaining gaps, such as cost-effective energy storage, will also be filled faster than expected.

The task now is to connect the best of these innovations with markets that allow them to grow, while also integrating them in ways that create exponentially more value for every energy user—no matter who they are, where they live, or what they do.

The smart grid we're building today will accomplish that by functioning much like the internet—a platform that provides universal access to clean energy, while creating new choices for consumers and spreading the gains of a low-carbon economy as widely as possible.

But to fully unleash that potential, companies such as PG&E need to continue making significant investments in the grid. And that, in turn, requires policies that can keep pace with rapidly evolving technology and market forces.



As we shift to an economy where electricity is produced and used differently, the cost of the grid will need to be recovered in ways that more accurately reflect the services that energy companies like PG&E provide—while still rewarding customers for their own clean-energy contributions. The benefits must also be accessible and affordable to all of our customers—including small businesses, families, and those who need help paying their bills.

Making sure that the system works for everybody is one of PG&E's key responsibilities, and an essential part of our job. It's also part of why that work is so meaningful.

Since those early days of our industry when the grid was being invented, I don't think there's ever been such rapid change, with such important consequences. And as in Edison's time, our success in building a better energy system promises to make a real difference in people's lives—both our own, and all of the generations to come.

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