TRANSMISSION POSSIBLE

Get More from the Energy Grid with GETs

A more reliable grid. New jobs. Cleaner power. Transmission makes it possible.

Every day, millions of Americans rely on the energy grid to power their lives. Thanks to a network of transmission lines that carry energy from where it's generated to where it's used, we're able to heat and cool our homes, keep the lights on at our businesses, get online for work and school, and even charge our vehicles — and we often take it all for granted. Until the power goes out.

Unfortunately, that's happening more often. Our transmission infrastructure is way overdue for an upgrade — but new transmission projects can take years to complete. We don't have time to waste if we're going to keep pace with our electrification needs, and there are opportunities to make our current transmission grid more efficient while we build the grid for the future. What can we do in the meantime to get the most out of the grid?

Deploy grid-enhancing technologies, known as GETs. GETs can be integrated into our existing grid inexpensively and quickly so that we don't have to wait years for better energy reliability, lower energy bills, fewer carbon emissions, and new good-paying jobs.

What's a Grid-Enhancing Technology?

GETs are tools that make our power grid more flexible, reliable, efficient and can safely and quickly increase the capacity to help integrate more renewable energy. Transmission lines are like the roads and bridges of our power system, carrying energy from where it's generated to where it's used. Just as smart highway engineering and traffic signals help to moderate the flow of cars on the road, grid-enhancing technologies can prevent traffic jams in our transmission infrastructure and keep energy flowing smoothly and efficiently.

Some examples of grid-enhancing technologies include:

- **Dynamic Line Ratings**, which determine the true, real-time capacity of power lines so grid operators can avoid problems before they occur.
- **Power Flow Controllers**, which allow operators to reroute power to lines with available capacity and increase the overall amount of power in the system.
- **Topology Optimization**, which helps identify bottlenecks and prevent lines from becoming too congested.

And while it's not technically a grid-enhancing technology, there's one more thing we can do to get more out of our existing grid: *Advanced Reconductoring* replaces the existing equipment that conducts electricity with advanced technologies to increase the capacity and efficiency of the existing power line structure.

GET More Reliability

Grid-enhancing technologies can provide grid operators a real-time view of how their systems are performing, which in turn allows them to react quickly when the grid is under stress. This is especially important as regions all across the country are facing more extreme weather, leading consumers to all turn up the heat or the AC all at once. In these moments of extreme demand, advanced monitoring and control systems catch potential issues before they escalate into full-blown power outages or system failures, making our grid more reliable and resilient. Power Flow Controllers and Dynamic Line Ratings provide grid operators with reliable information on firm capacity and efficiency performance, and can reduce grid congestion by up to 33%.

GET Cost Savings & Good-Paying Jobs

Just as roads and bridges experience gridlock during rush hour, our transmission system can get congested when energy use surges and there's not enough capacity available to move low-cost energy where it needs to go.

At peak times, grid operators sometimes dispatch higher-cost energy instead — and families and businesses pay the price. Every year, grid congestion costs ratepayers billions of dollars — $20.8 billion in 2022 alone.

Fortunately, grid-enhancing technologies could unlock 40% more grid capacity and reduce congestion costs. By one estimate, grid-enhancing technologies could have saved consumers $8.3 billion in 2022 alone.

And that's not all. Integrating grid-enhancing technologies into the transmission system could also create up to 330,000 local construction jobs and 20,000 operations jobs.

GET Clean Energy

There's enough clean energy under development in the US today to meet most of our national energy needs, but we need a modern transmission grid to carry all that clean energy to the places we live, work, and play. Grid-enhancing technologies could allow us to double the amount of clean energy capacity in our existing grid — as we move to build more large-scale transmission lines.

That means we could cut 90 million tons of carbon emissions per year — the equivalent of taking 20 million gasoline-powered cars off the road.

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