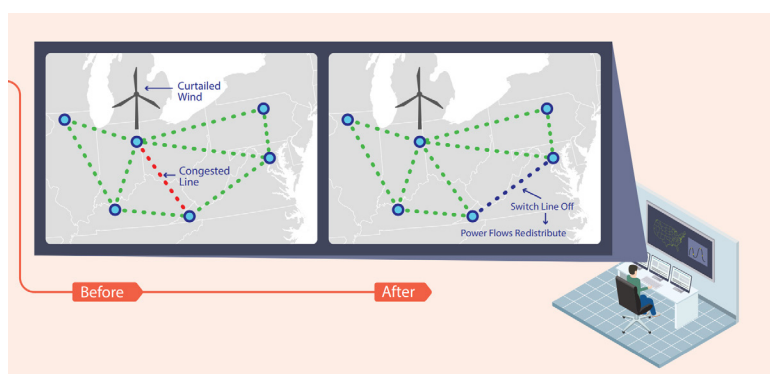


Grid Enhancing Technologies (GETs) and Advanced Conductors:

Near term grid solutions that lower energy rates, increase reliability, and help prevent wildfires

To transition quickly to clean energy without raising rates or sacrificing reliability, California's power grid needs a serious upgrade. Replacing power lines takes an average of 10 years, but we can rapidly increase the efficiency of our existing transmission infrastructure and deliver cleaner, cheaper energy to ratepayers by using **Grid Enhancing Technologies (GETs)** and **advanced conductors**.

The Grid Modernization And Enhancement Act (SB 1006) requires utilities to prepare a joint strategic plan for the cost-effective and timely implementation of GETs and to individually evaluate reconductoring with advanced conductors.



What are GETs?	What are advanced conductors?
Grid Enhancing Technologies (GETs) are hardware and software that monitor and control energy flow and transmission capacity, improving the reliability, safety, and efficiency of existing power lines.	Advanced conductors are the improved conductive material that makes up a power line. They improve the line's capacity, efficiency, and strength.
GETs offer big bang for the buck, often delivering benefits that exceed their costs in months.	They should ideally be coupled with GETs to obtain the full benefits of transmission upgrades.

GETs and advanced conductors can:

- **Save ratepayers money** by delivering lower cost power during periods of high demand.
- **Help prevent blackouts** by increasing the reliability of the grid we already have.
- **Reduce the need for fossil fuels** by increasing the renewable energy available to homes.
- **Reduce the risk of wildfires** by monitoring power line conditions and alerting operators when a line overheats.

We need GETs to achieve California's clean energy goals because:

- California is producing record amounts of clean energy, but existing power lines lack the capacity for the power to reach people's homes.
- GETs help us keep pace with the rapid buildout of clean energy technologies by using the transmission capacity we have more effectively.
- Building new transmission lines takes about 10 years, and we need reliable clean energy in the meantime. GETs are an immediate solution that will dramatically ramp up our transmission capacity and make better use of each new transmission line.
- GETs can be implemented in months, doubling the opportunity for new renewable energy immediately.



GETs ramp up access to affordable, clean energy, keeping rates low for taxpayers.

- Grid congestion was responsible for 80% of renewable energy curtailment in 2022, meaning that some clean energy was online and ready to be delivered to people's homes but never made it.
- While waiting for new power lines to be built, GETs can reduce congestion by 40% or more. Based on transmission congestion costs, that could have saved over \$680 million in wholesale energy costs in CA in 2022.
- GETs are relatively low cost to install. They often pay for themselves in less than a year of operation.

Old power lines can be a wildfire risk.

- GETs can monitor heat and wildfire conditions as well as the condition of power lines, alerting energy operators to potential spikes or problems and allowing them to take preventive action.

