

## **Upgrading Distribution Lines**

From 4kV lines to 12kV and 16kV



Southern California Edison is modernizing the power grid to meet the changing needs and expectations of our customers and to help California achieve its clean energy goals.

As part of the modernization efforts, we are upgrading 4kV distribution lines to 12kV and 16kV lines. This upgrade is needed due to rapid technology advancements and increased customer electricity demand.

## Benefits of upgrading our lines

The higher voltage lines will improve our reliability, harness the power of rooftop solar by enabling two-way power flow, and increase our capacity to charge electric vehicles. Specific benefits include:

- **Increased voltage capacity.** 12kV circuits have 3.5 times as much capacity as 4kV circuits.
- Reduced outage times. When an outage occurs, higher voltage lines
  will enable SCE to restore service faster by rerouting customers to an
  adjacent circuit while making repairs. There are twice as many circuits
  available for 12kV and 16kV circuits to be rerouted to than for 4kV
  circuits.
- Increased voltage stability. This is especially important for customers using solar panels and for manufacturing and industrial customers using sensitive equipment.
- **Improved efficiency.** 12kV and 16kV circuits are substantially more efficient than 4kV circuits.



16kV line



4kV line



## Where are we upgrading our lines?

This multiyear update project spans SCE's entire service territory. Priority is given to locations where the 4kV infrastructure is most vulnerable to voltage issues or where power is not easily rerouted to higher voltage lines in case of outages.

So that all customers receive the reliability benefits of a modernized grid, thirty-five percent of the work is taking place in disadvantaged communities.