

How outages occur in stormy weather

1 Storms are violent natural events that unleash destructive forces all across PG&E's 70,000-square-mile service territory. High winds are the most common source of outages.

6 Lightning may strike a transformer on a pole or a substation.

2 Wind may cause two wires to slap together and short out. It may blow tree limbs or entire trees into or across lines, either knocking them down and breaking them, or knocking them into each other and causing a short.

3 Mudslides may knock down poles, bringing the wires down with them and causing them to snap or slap together.

5 Wind may create such force against a pole and the equipment installed on it that the pole actually snaps in two, bringing the lines down with it. Or a vehicle may skid on a slippery street, run into a pole and break it.

4 Floods may inundate substations, forcing them to be shut down to prevent major damage to expensive transformers, capacitors, switches and other equipment.

Fixing The Problem

When any one of these incidents occurs, circuit breakers or other protective equipment shut off the flow of power. All customers on that circuit lose power.

In all these cases, PG&E facilities are broken or damaged and have to be replaced. Each location has to be located, isolated (current turned off to the spot) and made safe. Then the appropriate employees, equipment and replacement gear have to be brought to the scene.

Sometimes the cause of the outage —

for example, fallen trees, floods or mudslides—has also blocked the streets or highways to the area. Before PG&E crews can even get to the scene of the outage, they often have to cut up and remove trees, await Caltrans to open a mudslide-blocked road, or wait for flood waters to recede.

Storms often create a large number of outages simultaneously across broad sections of our service territory. When such massive damage occurs, we cannot respond to every outage at once, but have to prioritize them.

