

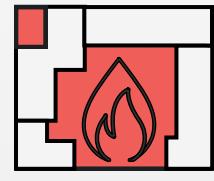
# Proven Benefits of Active Grid Response.

Empirical evaluation of AGR's impact on wildfire risk and reliability

## A Rigorous Longitudinal Study



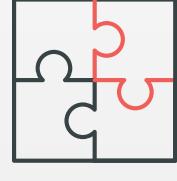
4 Years of Data  
(2022-2025)



High-Risk Grid Circuits



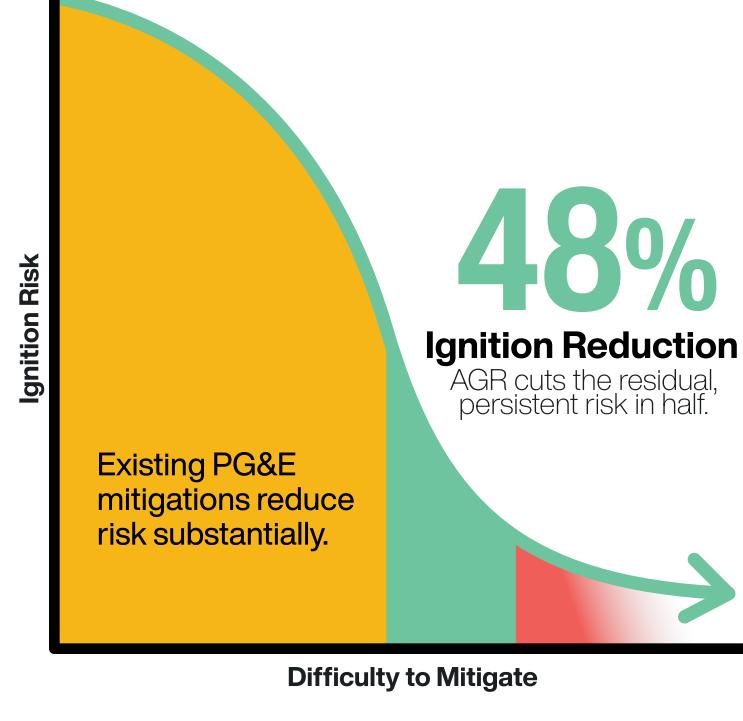
Differences-in-Differences Research Design



1:3 Matched Control Group

We compared **circuit-segment reliability** and **circuit-level ignition** outcomes of Gridscope-monitored areas and three matched-control areas side-by-side for 4 years. During times of Fast Trip enablement, Gridscope-monitored areas were able to catch additional **high impedance faults** and **hazards** and were able to **reduce customer outage times**.

## Key Outcomes



16%  
Median CAIDI Reduction

Gridware installations achieve clear and **material reductions** in **powerline ignitions** and **outage restoration time**, demonstrating both **wildfire risk reduction** and **customer reliability** improvement.

## What Sets Active Grid Response Apart



### Early Detection

Distributed monitoring detects and localizes ignition risks and ignitions.



### Faster Response

Proactive alerts drive prevention and rapid response.



### Wildfire Risk Reduction

AGR avoids ignitions and alerts when they do occur, enabling rapid response and decreased wildfire spread.



### Improved Reliability

Outage time reduced median by 16% and by 24% in high-outage grid zones.

## Benefit-Cost Analysis

Active Grid Response efficacy was plugged into wildfire mitigation scenarios testing deployments on 80 of PG&E's riskiest circuits.

Benefit-cost ratios were assessed inclusive of wildfire structure damages, reliability impacts to customers, and full program costs.

Covered Conductor + Fast Trip + PSPS + AGR

2.6 BCR

AGR Ratio: 6.5

Minimal Residual Risk

75 of 80 Circuits  $\geq 1$

Fast Trip + PSPS + AGR

3.3 BCR

77 of 80 Circuits  $\geq 1$

AGR Ratio: 13.4

Highest Value

We recommend reading the full [Quantifying the Economic Value of Active Grid Response in High Fire-Risk Areas](#)<sup>\*</sup> study for context and additional BCA scenarios.

\*Values presented are averages or medians, please see the full paper here for important caveats and ranges.

Gridware