



# Dynamic - Risk Index for Wildfire (Riski Fire)

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# PG&E: The First Climate-Change Bankruptcy, Probably Not the Last

- Russell Gold, WSJ, 2019



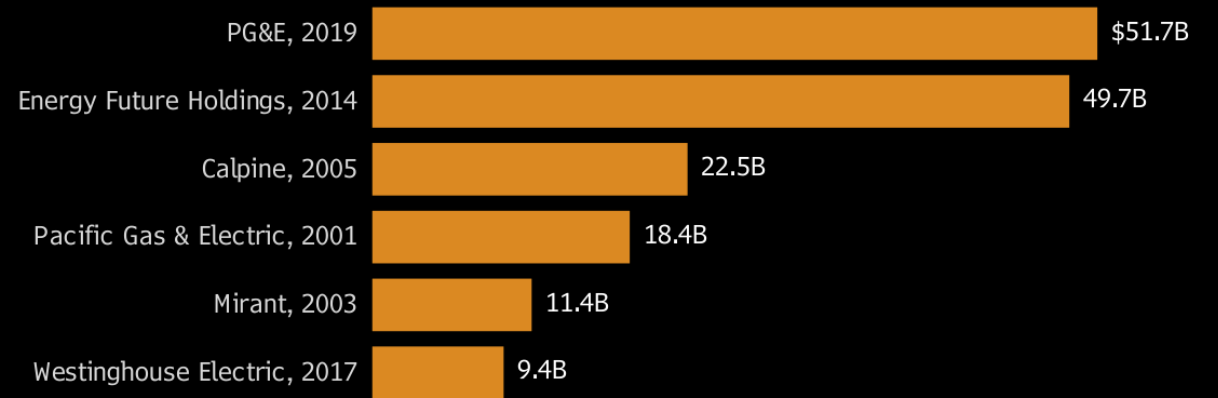
*“Companies that ignore climate change and don’t adapt will go bankrupt without question.”*

-Mark Carney

UN special envoy for climate action and finance

## Biggest Power Bankruptcy

PG&E cited California wildfires for its huge liabilities



Source: Bloomberg data

Bloomberg



PG&E Bankruptcy: In 2019, PG&E's costs from 2017-2018 fires exceeded \$6 billion, pushing the company into bankruptcy.



# California Wildfire Challenges: Academic-Industry Collaboration



- Climate change causes larger fires and prolonged fire seasons.
- Wildland Urban Interface (WUI) expansion heightens fire risk in populated areas.
  - Human activities trigger 97% of western US wildfires.
  - WUI fires cost billions of dollars in damages - \$68B in losses in the last 5 years; \$29B in 2018 (NOAA, Billion-dollar disaster report)
- Urgent need to move from reacting to predicting fires to mitigate costs and hazards.
  - Power companies are vital in energy distribution, but downed power lines can lead to major costly fires.
  - A comprehensive strategy involves collaboration between industry and academia to increase resilience and security.



# Proactive Decision-Making



• **Algorithm for Wildfire Risk:** Proposed creation of a high-resolution quarterly Vegetation Buildup Index (VBI) algorithm (1 km) to pinpoint fire-prone regions based on vegetation life-cycle factors.

• **Key Steps for Success:**

- **Product Design Definition:** Collaborate to define design constraints and ROI metrics.
- **Custom Algorithm Development:** Leverage Earth Lab's expertise for 3-month advance fire prediction product.
- **Algorithm Validation:** Evaluate algorithm accuracy with field-collected data from drones.
- **Utility Framework:** Create a comprehensive framework aligning with SCE's decision-making needs.
- **Decision Maker Involvement:** Collaborate to refine and align products with expectations.
- **Open-Source Deployment:** Provide an open-source software package for in-house product integration.

• **Unlocking Data Insights:** holistic approach integrates fire science and data insights into decision-making processes.

