PG&E Liabilities for California Wildfires Led to Bankruptcy

Power companies interact with the natural world in ways that bring existential threats. This is exemplified by the bankruptcy of PG&E Corp, the parent of regulated power and gas utility Pacific Gas and Electricity Company. The Northern California utility was forced to file for Chapter 11 bankruptcy after a federal court found PG&E liable for a series of forest fires from 2015 to 2018 that were started by sparking lines and poorly maintained infrastructure. It later paid out billions of dollars in settlements and was required to invest heavily in upgraded transmission and distribution equipment, as well as monitoring systems.

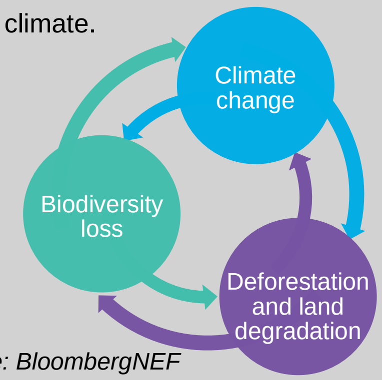
100% Share of gross value added by power utilities that is moderately or highly dependent on nature

91% Decline in PG&E’s share price in the 15 months following the 2017 Napa Valley fire

$5.36 billion Amount paid by PG&E in settlements to compensate for the impacts of the wildfires

Climate change and nature loss

The natural systems, land use and climate change are interlinked. Increasing temperatures and deforestation hasten the decline in nature, which impairs the ability of natural systems to regulate the global climate.



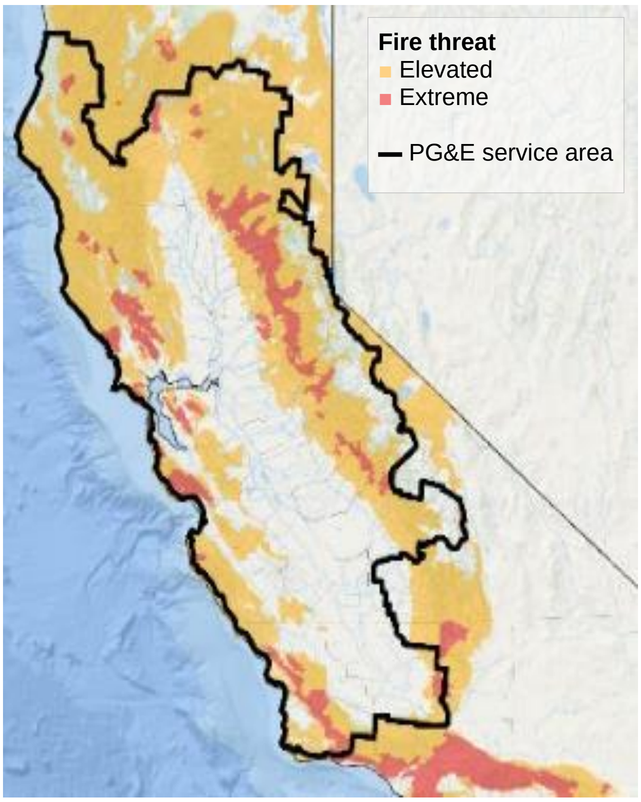
Source: BloombergNEF

Manifestation of nature risk

PG&E’s (NYSE: PCG) service territory extends through urban, rural and wild settings. It covers approximately 70,000 square miles – almost twice the size of South Korea or Portugal – including some of the most forested areas of the state, in Northern California and the Sierra Nevada mountains.

Severe and prolonged drought – exacerbated by climate change – has made these natural settings more vulnerable to wildfire.

PG&E's service territory is smothered with high fire-threat areas



Source: PG&E, California Public Utilities Commission, BloombergNEF.

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Throughout the early 2000s, several Californian wildfires were attributed to the state's utilities. However, it was the Napa Valley and Camp Fires in 2017 and 2018, respectively, together causing over 100 fatalities and destroying an area almost the size of Los Angeles, that garnered global attention. Across California, the proximity of electrical transmission lines to drought-affected vegetation significantly increased the risk of wildfires. According to a federal judge, PG&E's liability for damage caused since 2010 stemmed from failures to properly trim trees in the forest regions north of San Francisco, resulting in fires when branches hit the lines.

Sparking transmission and distribution lines also caused fires, as with 2018's Camp Fire, where a live wire broke free of a 99-year-old tower that PG&E's own guidelines deemed to be a quarter-century past its "useful life". The company's total liabilities for fires between 2015 and 2018 amounted to some $30 billion, far in excess of its insurance limits.

PG&E contractors trim trees around distribution lines in California in June 2019, in preparation for anticipated wildfires

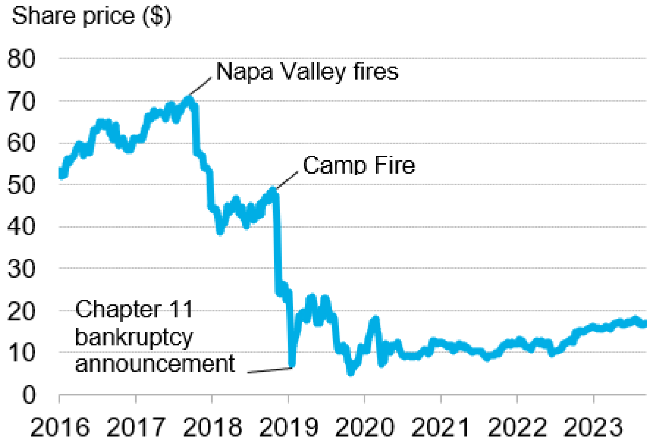
Source: Bloomberg

Financial and reputational impacts on PG&E

On January 14, 2019, the company announced it was filing for Chapter 11 bankruptcy and was looking to sell its natural gas unit, following negative media coverage and major harm to its reputation. This was the culmination of almost two years of turbulence for PG&E: prior to the Napa Valley fires, its share price had peaked at $71, before tumbling to $6 when news of its bankruptcy filing was revealed. For more BNEF analysis of PG&E wildfires, see: here, here and here.

Since the company emerged from bankruptcy in July 2020 and completed its court-ordered reorganization, its share price hasn't climbed above $20. Nor has PG&E been able to fully recover its reputation. However, following a large public share offering to partially fund the bankruptcy exit, PG&E's market capitalization returned to its pre-wildfire level of $36 billion in 2022 after reaching lows of $3 billion in 2019.

PG&E Corp share price fell 91% from September 2017 to January 2019



Source: BloombergNEF, Bloomberg Terminal.

In addition to financial loss and reputational damage, PG&E underwent management upheaval: its longtime CEO stepped aside after the company pleaded guilty to 84 counts of manslaughter. Patti Poppe succeeded interim CEO Bill Johnson, who had guided it through the implementation of the $59 billion reorganization plan. In March 2023, Poppe pledged $18 billion in wildfire prevention through 2025, which includes shoring up PG&E's infrastructure to reduce the risk of sparking lines and restore investor confidence in the utility.

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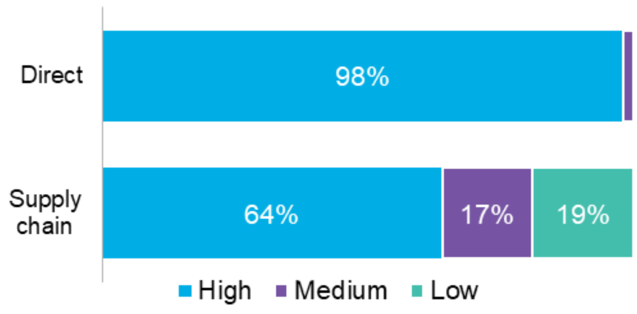
PG&E remains highly exposed to future wildfire risk. Rising temperatures and less frequent rainfall render Northern California more prone to drought, creating the conditions for forest fires to ignite and spread quickly. While moving a portion of its transmission infrastructure underground and requiring more stringent equipment inspections have helped mitigate this risk, the scale of its transmission and distribution network across the state means that wildfires will remain a key consideration in the company's long-term strategy. Nonetheless, its restructuring has played an important role in convincing investors, consumers and regulators that the company is better insulated from nature risk.

Nature risk across electric utilities

The electric utilities sector is one of the most highly dependent on nature, according to the World Economic Forum, with 100% of direct economic value generation and 81% of supply chain value generation being moderately or highly dependent.

Nature dependency of gross value added across electric utilities' direct operations and supply chain



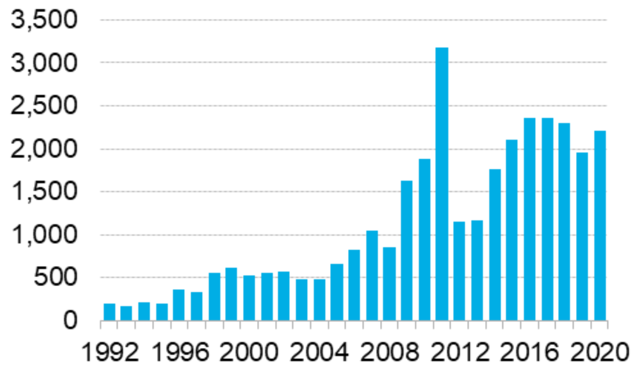
Source: World Economic Forum, BloombergNEF. Note: PG&E is categorized as an electric utility as it is the main part of the company and most relevant to the wildfires.

Global Canopy and UNEP's ENCORE nature tool provides further information on these nature interactions, providing information specific to electric power transmission and distribution, as well as infrastructure holdings. The production processes entailed in these operations are dependent on four ecosystem services, across climate regulation, flood and storm protection, and soil stabilization and erosion control. Flood and storm protection is deemed to be of very high materiality to companies in the sector.

The impacts of electric transmission and distribution on nature are more significant than the dependencies. The ENCORE materiality matrix identifies seven impact drivers of nature loss, which assess the impacts of production processes on ecosystem services and natural capital, that result from the operations of the sector. Of these, water use and pollution, greenhouse gas emissions, and soil pollutants are rated highly or very highly material to nature loss.

The number of wildfires in the US tied to the operations of electric utilities has increased in the last decade. A California state audit found that electrical power caused 10% of all wildfires and was responsible for 20% of the total area burned from 2016 to 2020.

Annual incidences of US wildfires caused by power generation, transmission or distribution



Source: US Forest Service, BloombergNEF.

Carbon dioxide released by wildfires contributes to climate change, in turn making future fires more likely and introducing a new set of climate risks for the utilities sector, including less resilience to natural disasters. An October 2023 article in Nature found that anthropogenic warming has enhanced the expected frequency of extreme daily wildfire growth by 25%, on average, relative to pre-industrial conditions.

To address this issue, California has started a public safety power shutoff (PSPS) program, under which

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utilities suspend local electricity services when weather conditions carry a high risk of electrical equipment igniting wildfires. The subsequent outages can leave thousands of customers without power.

Despite observing the financial collapse of PG&E, several other US utilities are facing legal and reputational loss related to wildfires. In June 2023, an Oregon jury found PacifiCorp liable for the 2020 wildfires in the state, which the company is appealing. As of October 2023, Xcel Energy is engaged in court cases from insurance companies seeking to ascribe to it responsibility for wildfires in Colorado in 2021, though Xcel denies liability. According to Wall Street analysts, Hawaiian Electric is facing potential bankruptcy for its possible role in the 2023 Maui wildfires, among the deadliest in US history, after Maui county filed a lawsuit against the utility company in August 2023. Hawaiian Electric denies liability.

For more BNEF analysis, see: *Hawaiian Electric Is Latest Utility Scorched by Wildfires* (web | terminal).

Similar risks and opportunities for electric utilities

Company	Risk type	Description
Hawaiian Electric	Legal and reputational	After Maui fires, HE is facing a financial crisis and litigation over accusations from Maui county that its power lines played a role in igniting fires. It denies liability.
PacifiCorp	Legal and reputational	Embroiled in litigation for failure to shut off power in extreme weather conditions that led to wildfires in Oregon, the company has already paid out almost $100 million to farmers, though it could be liable for $11 billion.
Xcel Energy	Legal and reputational	Facing litigation for its alleged failure to implement a shut-off as conditions worsened in the build-up to Colorado's 2021 wildfires. Xcel denies liability.

Source: BloombergNEF.

Beyond causing wildfires and incurring the resulting liabilities, electric utilities in California are also at risk of sustaining asset damage from wildfires ignited naturally or by human activities other than their own. A 2018 assessment by California's Energy Commission found that between 2000 and 2016, wildfires in California cost utilities more than $700 million in transmission- and distribution-related damage; including data from recent years brings total costs to over $1 billion.

Managing nature risks in the utilities sector

While PG&E's wildfire risk is location-specific, it serves as a prime example of a firm not fully appreciating its impacts and dependencies on the natural world and how those impacts and dependencies inform an understanding of nature-related risks to the business and investors. Better identification, assessment and disclosure of these would have increased awareness and the likelihood of preventive actions being taken.

With growing awareness of potential liabilities facing utility companies, the issue has become far more financially material for stakeholders. Managing risk and by extension ensuring safety, particularly in relation to wildfires, should be a top priority for utilities operating in the western US. To achieve this, the first step is understanding nature dependencies and impacts, achievable through the use of reporting and disclosure frameworks, and the selection of relevant metrics and targets.

Better wildfire prediction would also help the industry. Several startups and companies, including Kettle, Zesty.AI and Cape Analytics are building increasingly accurate modeling tools that harness AI technology. Insurance and reinsurance companies are availing themselves of the nascent services to better manage financial risk. For companies such as PG&E, these offerings could enable improved preparations in the run up to future wildfire outbreaks.

More from BNEF:

Wildfire Victims Draw the Short Straw in PG&E Exit Plan (web | terminal)

Theme: Power Grids Struggle to Cope with Extreme Weather (web | terminal)

Storm-Battered US Power Grids Need Intervention Now (web | terminal)

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Alistair Purdie	Analyst, Biodiversity Markets and Finance	apurdie2@bloomberg.net
Hugh Bromley	Manager, Food, Agriculture and Nature	hbromley1@bloomberg.net

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