



PUBLIC OUTRAGE PREDICTIVE MODELLING

POWER STRUGGLE

Counting the cost of
public outage
in the energy
transition



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INTRODUCTION

In Australia alone, social opposition to energy projects has added billions to budgets — that's the equivalent of building an extra Snowy 2.0 every decade.

While governments and project teams meticulously plan for financial, technical and environmental risks, one of the biggest drivers of cost overruns and project delays — social risk — remains dangerously underestimated.

From stalled transmission lines to abandoned wind farms, community sentiment has the power to make, shape or break the energy transition.

This paper explores the financial consequences of overlooking social risk in the energy sector, and the benefits of embedding it early in project planning.

Cost of overlooking social risk

Whether it's a Renewable Energy Zone, a transmission corridor or a pumped hydro scheme, energy infrastructure faces growing community opposition.

While most Australians support the shift to renewables, CSIRO's 2023 Energy Transition Survey found nearly 23% of respondents would oppose living within 10 km of a transmission line.

This reveals the challenges of gaining social licence for grid infrastructure, even before a project begins.

But the public's underlying discomfort with energy infrastructure often reflects deeper concerns — about land use, transparency and fairness — voiced most strongly by farming communities, Traditional Owners, conservation groups and local landholders.

Their influence is increasingly being felt on project timelines and overall delivery costs — leaving a measurable financial mark.

For example, a review of transmission projects across Australia and New Zealand, undertaken by Public Outrage Predictive Modelling (POPMP), found community resistance contributed between 25–35% to cost overruns.

AT A GLANCE

Social risk = financial risk

Opposition can add 25–70% to project costs, from litigation and redesigns to compensation and cancellation.

Outrage is predictable

It erupts when people feel ignored, sidelined or sacrificed... and no amount of spin can undo that.

Communities fighting back

Energy projects are being blocked, delayed or blown out, not by engineering failures but by public outrage.

Prevention better than cure

Understanding what drives outrage is the first step to reducing it — saving money, time and trust.

The real power struggle

Isn't between energy companies and communities, it's between outdated systems and a changing society that demands a seat at the table.

And it's not just transmission infrastructure being impacted.

In New Zealand, several large-scale renewable projects were cancelled after significant investment in planning, design, studies and legal work — resulting in the loss of 50–70% of total project spend.

In each case, the absence of social licence led to project failure, converting early-phase investment into unrecoverable cost.

Similar patterns are emerging worldwide, with the International Energy Agency (IEA) reporting that social acceptance is now one of the top three bottlenecks for grid expansion across OECD nations.

Meanwhile projects with strong social licence attract lower risk premiums and benefit from more favourable financing terms, according to the World Bank.

Early project confirmation increases costs... and risk

From Snowy 2.0 to VNI–West, the pattern is familiar: political haste drives premature announcements, often before communities are properly consulted and social risks fully understood.

This locks project teams into rigid scopes and budgets before stakeholder sentiment is mapped, with a suitable engagement strategy underway.

When trust is eroded, engagement shifts from co-design to crisis management, with expensive outrage specialists often required to manage long-term community opposition.

Research from ANU's NextGen Engagement Program confirms this, noting that premature project confirmation, without the support of early engagement, escalates risk and hardens opposition.

The result? Delays, redesigns, legal disputes, spiralling costs and long-term reputational damage.

Current risk models fall short

Traditional infrastructure risk frameworks quantify engineering, environmental and economic variables in detail.

Yet the most common cause of multi-billion-dollar overruns — social risk — remains largely unquantified.

It is becoming increasingly apparent that public perception is just as critical to project success, sometimes more so.

The energy sector is leading the way in this regard, with the financial implications of public outrage becoming impossible to ignore:

- EnergyConnect saw budgeted cost rise from \$2.1b to \$3.6b, with community resistance contributing to route delays and legislative changes.
- VNI–West is forecast to exceed \$11.4b (nearly triple its initial estimate) amid strong rural landholder opposition.
- In New Zealand, sustained community opposition led to the cancellation of Southland Wind Farm and Mōkihinui Hydro, resulting in sunk costs in the hundreds of millions.

These are not isolated cases, as the US Niskanen Center found in its review of 37 transmission line projects, with 27% facing litigation or substantial community opposition, leading to delays and cancellations.

Despite these lessons, many risk models still treat community backlash as a rare anomaly or irrelevant to project success — when in fact, it's both common and predictable.

“When trust is eroded, engagement shifts from co-design to crisis management”

Quantifying social risk using predictive modelling

The inability for traditional risk models to accurately account for and quantify community opposition has led to new approaches that translate social risk into measurable, evidence-backed data.

Predictive modelling is already widely used in engineering, finance and environmental forecasting but it can also be applied to social factors.

One such approach is Public Outrage Predictive Modelling (POPM), which identifies early warning signs such as trust gaps, project misalignment and perceived inevitability.

These are assessed against risk factors known to have amplified outrage on similar projects to calculate a social risk score.

The risk score can then be used to estimate the potential financial impacts of community opposition.

This puts a dollar value to a risk often seen as a nice-to-have — but how optional does it look when the costs start blowing out?

These kinds of social risk assessments enable decision-makers to understand the true costs of their decisions, along with identifying and prioritising mitigation pathways before budgets escalate.

Social risk modelling that consider financial implications expose the true cost of inaction — showing leaders not only what might go wrong but what it may cost.

It makes mitigation not just advisable, but economically urgent.

When reputations, relationships and millions in project costs are at stake, predictive modelling turns social risk into something tangible — a known variable that teams can measure, manage and get ahead of.

That's not just better planning, it's smarter investing.

Conclusion: Build it with the community... or not at all

The race to net zero will be won or lost on the ability to deliver energy infrastructure in a way that is acceptable to the hosting communities.

Social risk is not a side hustle — it's a core project factor and it needs to be treated as one.

Ignoring public sentiment doesn't just derail projects, it's costing billions and slowing the global energy transition.

We have a choice: stay stuck in the reactive cycle, or shift to take a predictive, preventative approach.

As the IEA warns, the scale and speed of grid expansion we require will only be achieved if social acceptance is built in from the start.

Tools such as POPM provide the evidence base to make that possible.

The question is will we change our thinking and operations in line with the evolving social landscape or is that the real power struggle we're facing?

SOURCES & RESEARCH BASIS

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