

Brotherhood of St. Laurence

Balancing act

Project report on pruning gas networks

David Bryant and Damian Sullivan

2026



Brotherhood of St. Laurence
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The Brotherhood of St. Laurence (BSL) is a social justice organisation working towards an Australia free of poverty. Our purpose is to advance a fair Australia through our leadership on policy reform, our partnerships with communities and the quality of our services. Our approach is informed directly by people experiencing disadvantage and uses evidence drawn from our research, together with insights from our programs and services, to develop practical solutions that work. For more information visit <www.bsl.org.au>.

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This project was funded by Energy Consumers Australia Limited (www.energyconsumersaustralia.com.au) as part of its grants process for consumer advocacy projects and research projects for the benefit of consumers of electricity and gas.

The views expressed in this document do not necessarily reflect the views of the Energy Consumers Australia.

This research was supported by the Australian Government through the Australian Research Council's Centre of Excellence for Children and Families over the Life Course (Project ID CE200100025) (Life Course Centre, www.lifecoursecentre.org.au). The Life Course Centre is a national research centre investigating the critical factors underlying deep and persistent disadvantage to provide new knowledge and life-changing solutions, for policy, service providers and communities.

Published by

Brotherhood of St. Laurence
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Fitzroy, Victoria 3065
Australia

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ARBN 100 042 822

T (03) 9483 1183

www.bsl.org.au

Suggested citation: Bryant, D & Sullivan, D 2026, *Balancing act: project report on pruning gas networks*, Brotherhood of St. Laurence, Fitzroy, Vic.

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Summary

Picture the street you live on. It most likely has gas pipes running underneath it. Eventually those gas pipes will become leaky and need to be replaced. This costs hundreds of thousands of dollars per kilometre.

In the next two decades, Australia will need to stop using gas in homes to meet our climate commitments. Luckily, electric appliances are less polluting and cheaper to run than gas appliances in most cases.

So, when the time comes to replace the gas pipes on your street, would you spend hundreds of thousands of dollars on new pipes, or would you rather have that money (or some of it) put towards switching homes, especially for those who cannot afford it, from gas to all-electric?

This is called **gas network pruning** (or strategic decommissioning) and is the focus of this report.

The Brotherhood of St. Laurence (BSL) commissioned the first public economic analysis of pruning in Australia and found that, in our case study of a small residential area with around 800 residents in the west of Melbourne, electrifying homes would save over \$3.3 million versus performing business-as-usual (BAU) gas upgrades.

BSL commissioned researchers from the Life Course Centre to investigate people's attitudes towards pruning through interviews and surveys. We focused on households facing barriers to electrification and found generally positive attitudes to the idea of repurposing gas pipeline expenditure for local area electrification. Specifics about who would pay and what would happen if people declined electrification elicited mixed responses – these are complex matters and will require further work.

BSL recommends governments and regulators develop and implement pruning, prioritising fully funded upgrades for low-income households. Funding for these upgrades should come at least partly from avoided gas replacement spending; if this increases the cost above BAU, government should fund the gap (or more) to avoid increasing the burden on remaining gas users. Implementing pruning could make the gas transition cheaper and fairer by lowering its overall cost and shifting the cost away from households facing disadvantage.

This report provides insights from social, economic and desktop research conducted as part of Balancing Act, a project led by BSL with commissioned research by Energeia and researchers from the Life Course Centre at the University of Melbourne,¹ and funded by Energy Consumers Australia (ECA).

In our case study of a small residential area with around 800 residents in the west of Melbourne, electrifying homes would save over \$3.3 million versus performing BAU gas upgrades.

¹ Sangeetha Chandrashekeran and Emma Kaye of the Australian Research Council Centre of Excellence for Children and Families over the Life Course.

1 Introduction

While gas is widely used in Australian homes, phasing it out is essential to meet our climate targets. It is likely that gas networks – tens of thousands of kilometres of pipes and other infrastructure – will shrink and eventually become largely redundant as households switch to electric-only.

Electrifying homes leads to big bill savings in most cases, and it can alleviate energy stress for people facing disadvantage (Dawkins 2023). Electrifying also improves safety and reduces exposure to pollutants associated with conditions like childhood asthma (Lin, Brunekreef & Gehring 2013).

However, the transition away from gas risks being expensive and inequitable if we do not implement fair policies and change the energy rules, which are premised on gas networks growing. Many households cannot electrify without support, often because they lack the upfront funds or they rent. Under the current rules, households who remain on gas will bear more of the gas network's cost as others leave. We will need a broad suite of measures to address these problems and others.

Balancing Act is a project investigating one possible part of the puzzle: gas network pruning. Pruning means disconnecting areas from the gas network and switching the affected buildings to electric-only, with low-income households fully supported to electrify.

This report focuses on pruning areas where gas network operators propose infrastructure spending, mainly replacing ageing gas pipes. Replacing pipes is necessary when they become leaky, but installing new pipes may no longer make sense. Gas pipes are paid for by consumers over a period of up to 80 years, yet gas use beyond 2050 is incompatible with net zero. Gas infrastructure installed today may therefore become redundant before it is ever paid for. Unless policy changes, the cost of these 'stranded assets' is likely to fall inequitably on households.

Pruning could be a win-win solution that avoids the need for these gas infrastructure replacements and diverts money towards assisting households to electrify – particularly people who face barriers to electrifying, such as a lack of funds. By avoiding installing new gas infrastructure, pruning could also spare remaining gas users the cost of these stranded assets.

Gas pipes are paid for by consumers over a period of up to 80 years, yet gas use beyond 2050 is incompatible with net zero. Gas infrastructure installed today may therefore become redundant before it is ever paid for.

2 Method

Balancing Act aimed to contribute to an equitable gas transition by developing knowledge on gas network pruning. It was led by BSL and funded through a grant from Energy Consumers Australia (ECA).

Balancing Act comprised three workstreams, including one by BSL and two commissioned research projects:

1. **Research by BSL on pruning** and gas network decline, including developing a framework for assessing pruning and scoping the information necessary, which is detailed in our *Sunk costs* report. BSL's research included a literature review, discussions with experts from government and industry, and analysis of gas network documents.
2. **Economic analysis by technical consultant Energeia**, specifically a cost-benefit analysis of a hypothetical pruning proposal in a real location (see attached modelling report). This analysis focused on a residential area in the western suburbs of Melbourne that will need gas network upgrades in the near future. BSL and Energeia validated the need for the upgrade in this area, as well as our broader assumptions, with the relevant gas and electricity distributors.
3. **Social research by the Life Course Centre at the University of Melbourne** with assistance from BSL. This involved surveys (n=8) and interviews (n=11) of mostly low-income householders about barriers and enablers to electrification and their attitudes towards a possible strategic, area-based approach to gas network decommissioning (see attached social research report: *Pruning gas, powering communities*). This research focused on

the same area of western Melbourne as the economic research, in addition to a second site in Gippsland (in eastern Victoria). Participants in Gippsland were recruited from an existing electrification program and had mostly received fully funded and facilitated whole-home electrification for free. This contrasted with the more typical western Melbourne sample, who had received lower levels of electrification support (including some from BSL in a previous program) or no support. Half of the Gippsland households were aged over 60, with most reporting annual incomes below \$80,000. The sample included six home owners and two renters. Six households still used gas; two had fully electrified. Significant energy hardship was evident, with an average financial stress score more than double the national average. Participants strongly favoured electric appliances (88%), though resistance to change emerged as a barrier, particularly among older residents. Awareness of energy programs was high, yet uptake remained low.

This report provides BSL's insights from the three components of Balancing Act, and presents BSL's policy recommendations. These recommendations do not necessarily reflect the views of the Life Course Centre or Energeia.

Participants strongly favoured electric appliances (88%), though resistance to change emerged as a barrier, particularly among older residents.

3 Context

Gas is set to decline ...

Gas networks are widely forecast to decline in the coming decades, possibly terminally. However, in Australia they are still governed by rules that incentivise gas growth and assume gas will operate forever (AusNet 2024b; DELWP 2022; AER 2021).

If we do not change the gas rules, the transition risks being inequitable and inefficient, with the costs potentially borne by disadvantaged households. For example, when a gas distributor replaces old pipes, it routinely spreads the cost among all of its customers over decades – for up to 80 years. This works reasonably well when customer numbers are growing or stable, but it will become a serious problem when they are shrinking. Under the current rules, a smaller and smaller group of people who retain gas will end up paying an increasingly unaffordable share of the total network cost as others electrify. This total cost will not shrink proportionally as people leave – especially if the wind-down is uncoordinated.

Without action, the people left using gas – and paying increasingly high costs – will include those who can not afford to electrify or face other barriers such as renting.

A worst-case scenario is called a gas network ‘death spiral’, which entails a feedback loop where prices become unaffordable as users disconnect, which prompts further disconnections and price rises, and eventually gas network businesses fail. Whether a death spiral materialises, and how quickly or severely it might unfold, is uncertain. Forecasts of price increases vary greatly, from +100% by 2050 (comparable to recent price rises that did not prompt mass disconnection) to annual bills of over \$5,000 – a much more disruptive increase (AusNet 2024a, p. 34).

... but the rules have not kept up

Existing regulatory tools are inadequate to deal with these problems. For example, recognising they may not get paid back for past spending, gas distributors have proposed to charge customers more now and less later, which is called accelerated depreciation. However, the amounts distributors have proposed are simultaneously much too small to solve the stranded-asset problem (Dynamic Analysis 2024) but too large to be accepted by regulators as a reasonable bill increase.

There are many other problematic gas rules, including those that directly incentivise gas growth, allow gas companies wide discretion in how they spend money and allow gas companies to withhold useful information from the public. There are virtually no rules that encourage or even govern a shift away from gas, even if this is the best or most economic option.

Australia needs new approaches. Australian regulators have begun assessing which rules to change and how, including the Australian Energy Market Commission (AEMC).² Governments also have an important role in setting policy.

² See <https://www.aemc.gov.au/news-centre/media-releases/aemc-makes-changes-gas-connection-charges-support-transition-net-zero>

What about renewable gas?

Some gas networks have proposed switching to low-carbon gases, namely hydrogen or biomethane. Neither is likely to significantly avert gas networks' decline. Gas networks themselves have acknowledged that their future is 'highly uncertain', despite running optimistic advertising alleged to be greenwashing by the ACCC:

Will gas networks be in business at all in 2050? ... If we are in business, what will we be transporting? Will it be gas or will it be hydrogen or other renewable gases? ...

We can answer almost none of these questions with any degree of clarity or certainty.

(Australian Gas Networks, quoted in ACCC 2025, p. 3)

Hydrogen is uncompetitive

Hydrogen cannot compete with electric appliances on cost because producing hydrogen uses more electricity than an efficient electric appliance does for the same purpose (Rosenow 2024). This will limit uptake of hydrogen.

Using hydrogen in gas networks would also require billions of dollars of work to refit networks, all new appliances, and the resolution of new safety and environmental issues, including that hydrogen is explosive, notoriously leaky, and its leaks cause global warming (Infrastructure Victoria 2022; Ocko & Hamburg 2022; Rosenow 2024).

Even if networks did switch to hydrogen, Infrastructure Victoria (2022, p. 92) forecasts that thousands of kilometres of gas pipes would still be decommissioned.

Biomethane is too scarce

Biomethane is too scarce for households to adopt at any large scale. Australia is only expected to produce enough biomethane to cover about one-third of our current gas usage, and it makes more sense to reserve this limited supply for hard-to-electrify businesses, as Victoria plans (Wood, Reeve & Suckling 2023; DEECA 2024).

Biomethane, hydrogen or ongoing use of liquified petroleum gas (LPG, which is not renewable), may find niche uses in homes, such as for barbecues or in off-grid homes, but these could use bottles rather than requiring an expensive gas network.

This leaves electrification as the best – and perhaps only – way forward for almost all the roughly five million Australian households that use gas.

Governments are acting but big questions remain

All Australian states/territories and the Commonwealth have net-zero targets that are incompatible with continued gas use, but policy efforts are not yet sufficient to phase out gas. Many governments across Australia have put in place policies and programs to electrify homes, with varying ambition. Victoria and the ACT have gone the furthest, with high-level strategies for a phase-out of gas and some important policies to begin this, such as bans on new home gas connections.

Governments have not yet made public decisions or policies about how gas networks will be wound down. For example, we do not know whether gas will be phased out all at once, place-by-place or by appliance; how the costs will be distributed; what support households will get; or when this will happen. Regulators are largely waiting for governments (probably at state/territory level) to make these decisions before they make rules about wind-down.

If governments do not act, decisions may be forced on them. Two unrelated small Australian gas networks, supplying Esperance (WA) and 10 Victorian towns, have already announced that they are unviable and will withdraw supply – both with only roughly one year's notice. In Esperance, the state government offered generous support (see review of existing research below), while residents of the Victorian towns are set to receive less support and face potentially large bills to change over (Chandrashekeran & Kaye 2026). Planned closures, rather than these unexpected shutdowns, will bring better and fairer results.

Start by minimising spending on gas networks

In this context, how do we begin to phase out gas? One starting point, which this report investigates, could be targeting electrification to areas with old gas networks that require costly upgrades. Gas businesses still do hundreds of millions of dollars' worth of such upgrades in each five-year planning period. These are largely premised on safety and paid for mostly by households.

If we can safely avoid some of these gas network upgrades, it could benefit everyone: households would be spared the cost of the upgrades, gas businesses would be spared the need to make investments that may never pay off and emissions would fall. Even if we were not planning to fully decommission gas networks, minimising spending could still be beneficial because these investments may never be paid off as usage falls.

Pruning, explained in the following section, is one method that could be used to prioritise areas for electrification and decommissioning. Policies to enable pruning should sit among other policies that will be needed to manage the gas transition.

Even if we were not planning to fully decommission gas networks, minimising spending could still be beneficial because these investments may never be paid off as usage falls.

4 What is gas network pruning?

Gas network pruning involves selecting an area according to certain criteria, converting the local buildings from gas to electric-only,³ then decommissioning the gas network in that area. It is also called strategic decommissioning.

Pruning can eliminate the need for gas network upgrades and so it could potentially fund the electrification of the affected homes (at least partly) without costing gas users more than business as usual (BAU).

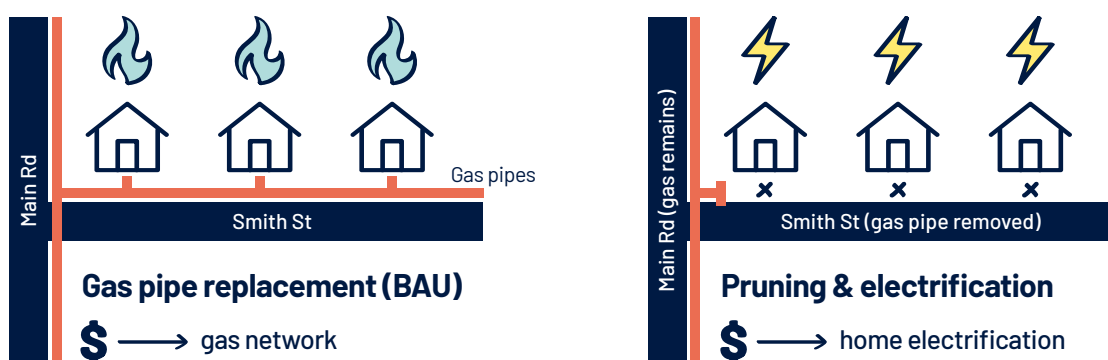
Studies overseas have found that pruning could reduce greenhouse emissions, lower the cost of the gas transition, and fund electrification of low-income households (Alter et al. 2024; CEC 2024; Groundwork Data 2023; Sullivan & Murphy 2024). See review of existing research below for further details.

Scale

Pruning is commonly conceived at street scale, although it would also be possible to disconnect larger areas, such as a whole town at the end of a gas pipeline. This report focuses on pruning homes, but the approach could also be applied to businesses.

In Australia's most recent gas planning processes, nearly \$1 billion of spending was proposed on mains replacement and augmentation⁴ – key categories potentially avoidable through pruning – although not all of this will be viable to avoid.

Figure 1: Simplified pruning illustration



³ Or, in some countries outside Australia, connecting buildings to district heating/cooling.

⁴ BSL analysis of most recent completed access arrangements for Vic., SA, NSW and ACT from documents available at <https://www.aer.gov.au/industry/register/access-arrangements>.

Pruning currently offers the best potential in areas where it can be used to avoid planned gas network upgrades (mostly replacing pipes). Gas mains replacement costs hundreds of thousands of dollars per kilometre in Australia, and avoiding this cost would benefit all gas users by lowering their bills by reducing the cost of infrastructure they fund. Expanding pruning to areas without planned gas upgrades may become necessary in future to meet emissions targets. Fortunately, the economics of pruning should also improve over time because electrification is the primary cost of pruning and this cost will fall as households naturally disconnect from gas, leaving fewer home electrifications to pay for via pruning (see Figure 2, p. 14).

Pruning will only be applicable to certain areas of gas networks, such as areas that can be cut off gas without affecting supply to surrounding areas (Gold-Parker et al. 2023). Pruning is therefore only one of several approaches that is needed to phase out gas, alongside others including restrictions on appliances and new connections.

Avoiding augmentation

A complementary approach to pruning is avoiding augmentation. Augmentation is when gas networks are upgraded, usually to accommodate growing demand. In some cases, augmentation could be avoided through measures that prevent demand growing, such as electrifying selected homes.

Avoiding augmentation may be easier to achieve than pruning because it does not require all gas users in a given area to fully electrify; only electrifying enough appliances to lower demand.

On the other hand, avoiding augmentation offers less potential than pruning because a) it is most relevant to growing, not declining, networks, and b) augmentation is a smaller spending category in Australia than mains replacement. Both pruning and avoiding augmentation are nonetheless worth pursuing, although the focus in this report and the case studies is on pruning.

Who benefits and who pays?

At present in Australia, the costs of running and building gas networks, plus a return on investment, are generally⁵ paid for by gas customers via bills – mostly households. Operational costs are paid back in the short term. Capital costs, including replacing pipes, are paid off over the expected lifespan of the equipment, which is up to 80 years.

As noted in the context section, this system of paying off (called ‘depreciating’) infrastructure over decades will lead to prices rising and the cost falling inequitably on remaining gas users as people disconnect from gas. Gas networks, particularly new infrastructure, are unlikely to be paid off by the time they stop being used, which will leave them ‘stranded assets’. This stranded cost is also likely to fall on gas users and/or taxpayers. It is therefore in everyone’s interests to lower the value of these stranded assets.

Pruning benefits and who incurs them

Pruning presents a solution because electrifying households removes the need for long-lived investments in new gas infrastructure. Avoiding new gas investments benefits remaining gas users because it lowers the value of infrastructure they pay for. Pruning also benefits the people whose homes are electrified, because all-electric homes are generally cheaper to run and it saves them paying for electrification. Pruning may also benefit gas network businesses by removing their future risk of not being paid back, although this is offset by their loss of customers. Table 1 describes these benefits.

⁵ While most gas infrastructure is funded from bills, there are exceptions. For example, the Victorian Government part-funded new gas pipelines to previously unserved regions in the 2010s (AGN 2017), and people connecting new properties to gas contribute in some circumstances.

Table 1: Benefits of pruning and likely beneficiaries

Pruning benefit	Experienced by
Lower gas bills (lower value of infrastructure to be paid off while gas networks are operating)	Remaining gas users (assuming cost of pruning is below BAU)
Eliminated gas bills, avoided cost of electrification and health/amenity benefits	Pruned households
Lower risk of stranded assets in future, when gas networks cease	Gas networks, and likely gas users or taxpayers who would end up paying if networks failed
Lower greenhouse emissions	Society

Pruning costs and how they could be recovered

Pruning also has costs, and they should be recovered equitably rather than contributing to the gas transition's problems.

The main question is how to pay for a) earlier decommissioning of gas infrastructure such as pipes, and b) earlier installation of electric appliances in pruned homes. Both these costs will occur anyway as we move away from gas, but pruning accelerates them.

Both costs could be funded by a number of parties, including gas consumers, taxpayers and electricity consumers, or a combination.

Requiring payments from individuals would be inequitable for the low-income households we suggest targeting pruning to, as well as greatly limiting uptake. Requiring partial payment from households could be considered if pruning is targeted to wealthy households.

Another cost is loss of revenue to gas networks from accelerated departure of customers caused by pruning. This cost will likely fall on remaining gas users as gas networks raise rates to compensate. However, if we assume action consistent with meeting net zero dates, all customers will leave in the next two decades regardless, so the cost associated with pruning should only be the cost of accelerating that departure, not causing it to happen.

Table 2 describes how relevant costs are currently paid for and options for paying for them in a pruning scenario.

Table 2: Current and potential sources of funding in a pruning scenario

Cost	Currently funded by	Funded by, in a pruning scenario
Gas pipe replacement	All gas customers via bills	N/A – cost eliminated where pruning occurs
Electricity network upgrades necessitated by electrification	All electricity customers via bills	All electricity customers via bills
Electric appliances	Individuals, with government subsidies in some cases (some subsidies funded by other electricity users)	Options: <ul style="list-style-type: none"> Gas networks/consumers Government/taxpayers Electricity networks/consumers A combination
Gas decommissioning (street pipes)	Not decided	
Gas decommissioning (pipes on household property)	Individual householders (partly socialised among all gas users in some states) ⁶	

⁶ In Victoria, the cost of household gas abolishment is currently subsidised for disconnecting households, with the remainder shared among remaining gas users. The AEMC is seeking to reverse this.

5 Review of existing research and examples

Pruning is nascent globally, with small-scale examples completed in California and New York and proposed in other American states. Gas decommissioning more broadly has occurred in a few places, including Zurich and Esperance. This section draws lessons from research and completed examples of decommissioning.

Avoiding spending on gas networks could be a win-win

Existing research suggests avoiding spending on gas networks via pruning or avoiding augmentation could be a win-win, making the gas transition more equitable and efficient, and helping to fulfil governments' climate change commitments.

Specifically, pruning provides an opportunity to:

1. **avoid installing gas assets likely to be stranded in future**, sparing households from future cost (Aas et al. 2020)
2. **change the distribution of stranded cost away from people facing disadvantage**, if pruning is targeted to low-socioeconomic-status areas (Gold-Parker et al. 2023)
3. **improve the efficiency of gas wind-down** by coordinating it rather than disconnecting each home individually (which costs around \$1,300 in Australia) and leaving patchwork networks to be maintained (Payne 2020)
4. **lower emissions**, because efficient electric appliances are usually already less polluting, and are on a pathway to near-zero emissions, unlike gas (Wood, Reeve & Suckling 2023)
5. **reduce energy bills and alleviate energy stress** because efficient electric appliances are cheaper to run than gas equivalents in most cases and pruning can be targeted to disadvantaged areas first (Renew 2025; Gold-Parker et al. 2023).

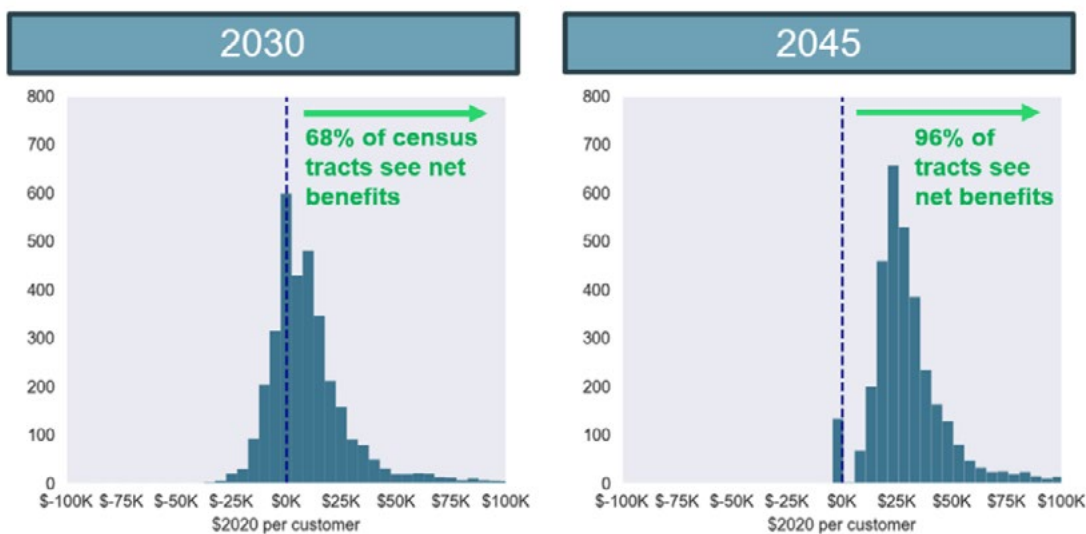
In the context of a 2050 net-zero date, bringing forward household electrification to avoid gas network spending makes sense. Households will need to electrify in the next 24 years, whereas gas pipes may be redundant by then and potentially will never be paid off. The cost of these stranded gas pipes is likely to ultimately fall on government or households.

Electrifying homes through pruning will also bring other benefits, such as reducing exposure to pollutants linked to conditions like childhood asthma in the home (Lin, Brunekreef & Gehring 2013).

The economics of pruning are already favourable in many areas but likely to improve over time, as the figure below from the California Energy Commission (2024, p. 24) shows.

Electrifying homes through pruning will also bring other benefits, such as reducing exposure to pollutants linked to conditions like childhood asthma in the home.

Figure 2: Histogram of net benefits/costs of targeted electrification across all areas (census tracts) of one Californian utility (CEC 2024)



Source: Energy and Environmental Economics, Inc.

Case study: California

Significant work on pruning has been undertaken in California following a recommendation from the California Energy Commission (2020). A consortium developed a framework for pruning, conducted a cost-benefit analysis and made recommendations for policy.

In all 11 sites assessed, the benefits of pruning exceeded the costs (E3, Gridworks Organization, & East Bay Community Energy 2023). The consortium estimated that pruning could avoid around US\$20 billion of spending, or US\$32,000 per customer (Smillie et al. 2023).

The authors noted a tension between prioritising the most cost-effective sites versus disadvantaged areas, and recommended prioritising the latter (CEC 2024).

California has recently passed a law, SB 1221, that:

- requires gas networks to publish annual maps with opportunities to prune areas, focusing on disadvantaged areas
- allows gas networks to initiate pruning pilots, including lowering the threshold of households who need to agree to 67 per cent (from 100 per cent)
- requires networks to submit an annual progress report on these pilots (CPUC 2025).

Engaging households is challenging

Engaging affected households is a key challenge for gas decommissioning and it is crucial to get this engagement right (E3, Gridworks Organization, & East Bay Community Energy 2023). This is especially true in contexts where all affected households will need to voluntarily agree to electrification (or switching to bottled gas), which includes major Australian gas networks. In the current Australian rules, a single holdout could mean millions of dollars of gas spending must proceed.

Early projects in California and New York struggled to engage sufficient numbers of households (Alter et al. 2024). California is trialling a lesser requirement for only two-thirds of local property owners to agree (CPUC 2025), which would make engaging sufficient households slightly easier. Lowering the threshold recognises that requiring unanimous consent gives individual customers veto power over collective infrastructure decisions, even where continued network operation is inefficient and costly. A threshold of two-thirds is comparable to rules around owners'

corporations in Victoria, where 75 per cent need to agree to proceed with major upgrades, including electrification (Consumer Affairs Victoria 2026). However, the threshold may need to be lower in future to meet net zero targets (EEC 2025).

Support for households is vital

Electrification is often expensive and many households will require major financial support to be able to afford it, although it usually pays itself back through lower ongoing running costs (Chandrashekeran et al. 2023). Pruning could help support households because it creates a potential source of funding for electrification if money can be diverted from avoided spending on gas network upgrades (E3, Gridworks Organization, & East Bay Community Energy 2023).

Giving households good information and advance notice is likely to help. Zurich has decommissioned parts of its gas network and provided households with 10 years' notice and access to a map that shows areas slated for future decommissioning, as well as compensation (Alter et al. 2024).

Figure 3: Screenshot from EnerGIS (Energy Map of Zurich), with highlighted area earmarked for gas decommissioning in 2030 (EnerGIS 2024). Machine-translated from German.

Information on the status of energy planning at this address

Korneliusstrasse 9

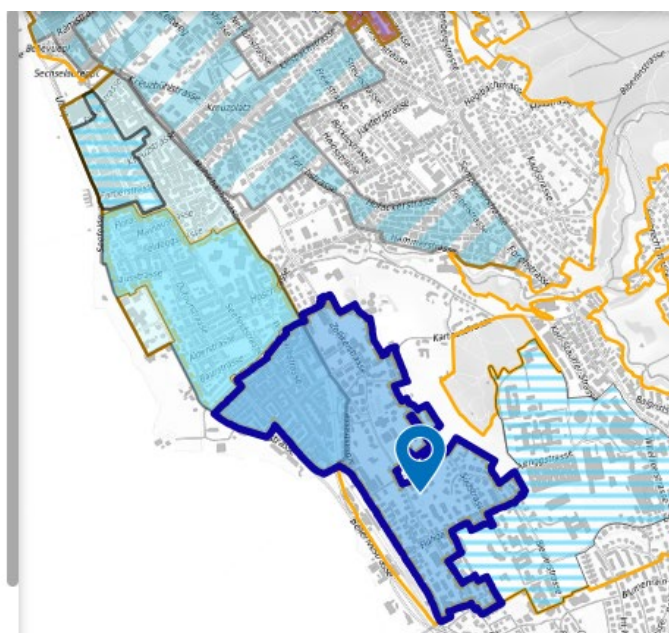


Tiefenbrunnen energy network

The energy network is in the construction/planning phase. It will supply heat and cold from lake water. The decommissioning of the gas network will begin in 2030.



status of planning



Case study: Esperance, Western Australia

Esperance provides another example of good engagement and support. The state government-owned retailer provided hands-on guidance and subsidies, resulting in a successful transition for households despite a short one-year timeframe imposed by the closure of the privately owned local gas network (Horizon Power 2023).

This work was intensive, with subsidies of thousands of dollars and some households requiring a dozen or more in-person visits to understand their options and agree. Some 75 per cent of households chose full electrification and households saved an average of 38 per cent on their energy bills (Horizon Power 2023).

Pruning could help support households because it creates a potential source of funding for electrification if money can be diverted from avoided spending on gas network upgrades.

6 Findings

This section presents insights from the desktop research by BSL on pruning, the social research by the Life Course Centre and the economic analysis by Energeia.

Pruning offers big savings in our case study

Energeia's modelling for BSL found that pruning delivered a significant saving compared to BAU gas upgrades for our case study area in the west of Melbourne. Energeia modelled a hypothetical pruning of a mostly residential area with about 800 residents in a suburb in the west of Melbourne slated for real gas upgrades in the next few years.

Ours is the first public modelling of its kind in Australia. It demonstrates the potential of pruning to contribute to the efficiency and equity of the gas transition. See the following section for a discussion of where these benefits (and costs) are likely to fall.

Our scenarios and approach

Energeia compared the pruning proposal, which involves electrifying all buildings in the area and avoiding planned gas network replacement (called the 'accelerated scenario' in Energeia's report), with two BAU scenarios:

1. **BAU with shutdown** – assumes the entire gas network is shut down in 2042, an approximate date suggested by Victoria's 2045 net-zero date and policy.⁷
2. **BAU without shutdown** – assumes the entire gas network is not shut down. This is an appropriate comparison because most Australian jurisdictions do not have formal policies to shut down gas networks, even if it is implied by their other commitments.

In both BAU scenarios, we assume the suburb's gas pipes are replaced in 2029, which reflects the average age of the local pipes and was validated by the local gas network operator as approximately realistic.

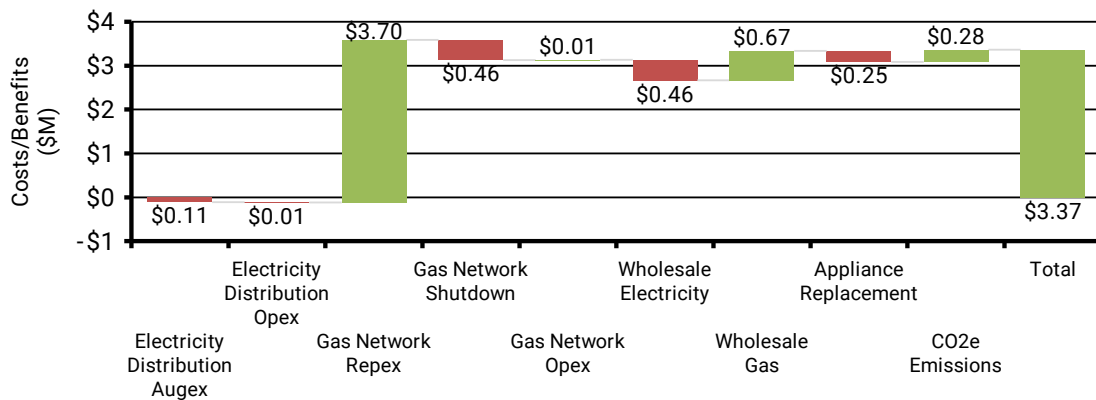
The modelling includes key costs such as upgrades needed to the local electricity network to accommodate increased load, increased electricity purchases and appliance purchases. It includes key benefits including the avoided gas network replacement and operating expenditure, gas purchases and avoided greenhouse emissions. Further considerations for a framework for assessing pruning proposals can be found in our *Sunk costs* report.

Our modelling results

In our case study area, we found our pruning scenario delivers millions of dollars of benefits regardless of whether we assumed the broader gas network would be shut down in future or not: **\$3.37 million benefit compared to BAU with shutdown (about \$4,200 per household) and \$2.48 million without shutdown.** These are significant sums for an area with around 800 people. The largest benefit is from avoiding gas network replacement. Upgrading the local electricity network adds only a relatively small cost. We discuss where these costs and benefits are likely to be experienced in the following section.

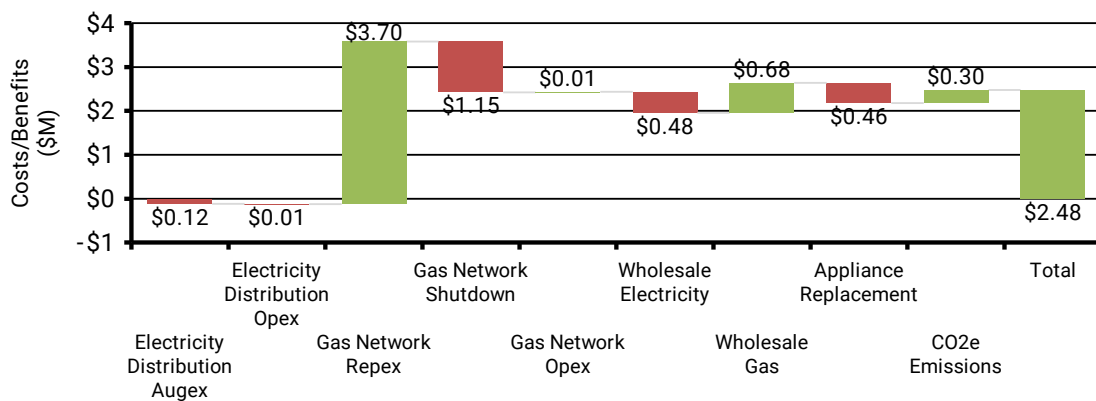
⁷ Victoria has a Gas Substitution Roadmap that envisages most households electrifying, policies that ban new gas connections and certain gas appliances at end of life, and a renewable gas policy that proposes to reserve renewable gas for businesses only.

Figure 4: Costs and benefits of pruning scenario compared to BAU with gas network shutdown in 2042



Source: Energeia

Figure 5: Costs and benefits of pruning scenario compared to BAU with no gas network-wide shutdown



Source: Energeia.

Note that 'gas network shutdown' in the graph only refers to shutting down the neighbourhood's gas infrastructure, not a network-wide shutdown (which is not considered in this scenario).

Limitations and future research

Our assumptions were validated with the local gas and electricity distributors, and we believe our results are robust, although some limitations apply and opportunities for future research exist:

1. Our modelling was a cost-benefit analysis, which reflects the costs and benefits for society, but does not model how costs and benefits are distributed (for example among households, gas businesses and governments). A distributional analysis would be a valuable next step to inform policy. See the following section for discussion.
2. Appliance costs appear low because it is assumed that most gas appliances will be replaced, in many cases with electric ones, in the 20-year analysis period regardless. This reflects the lifespan of appliances and Victorian restrictions on gas appliance replacements. Therefore, the appliance cost associated with pruning is not always the full cost but derived from the time value of accelerating the purchase and sometimes the marginal additional cost of buying an electric (not gas) replacement.
3. Accuracy of some costs – particularly for gas decommissioning, where little data is available – is limited.

4. Our modelling is a case study of one area. We believe this area is unexceptional among those requiring mains replacement, but all areas will have different economics depending on factors like population density, appliance mix, state policy, and characteristics of the local gas and electricity networks. Our method could be applied to other areas to ascertain a broader range of costs and benefits in different places.

See Energeia's report for further detail.

Who will see the benefits and costs?

Our cost-benefit analysis found that pruning offered significant savings to society compared to BAU. As noted in the limitations, we cannot quantitatively say where costs and benefits will fall without completing a distributional analysis.

For example, we cannot say whether pruning or the BAU upgrade is cheaper from the perspective of the gas network. It is possible that pruning would cost the gas network more than BAU, despite costing society less overall, because pruning incorporates costs otherwise borne by others (e.g. households would otherwise pay for appliances).

We discuss the likely distributional effects qualitatively below.

Benefits

The largest benefit, avoided gas network spending, may go partly to remaining gas users by lowering the value of gas infrastructure they would otherwise pay for bills, and partly to the pruned households in the form of free electrification upgrades. This benefit may be at least partly offset by costs, depending how they are allocated (see 'costs' below). This would include the cost of accelerating customers' departure from gas, which would place upward pressure on remaining customers' gas bills. Gas network businesses also receive the benefit of lower stranding risk.

Gas usage savings would be experienced by the pruned households, and remaining gas users may also benefit from lower wholesale prices if pruning occurs at a large enough scale.⁸ Both benefits may be shared with other parties, such as governments avoiding spending on energy bill concessions.

Greenhouse gas savings would be experienced by society as a reduced contribution to climate change, and possibly financially by gas networks facing smaller penalties under the Safeguard Mechanism.

Wealth transfers and events that would occur regardless

A cost-benefit analysis does not show benefits to one party that come at the expense of another ('wealth transfers'). For example, free electrification is a benefit from the perspective of the household that receives it, but a cost to whoever pays for it, and thus not shown in the analysis.

A cost-benefit analysis only shows the overall cost/saving compared to what would have occurred anyway (BAU). In this case, accelerating the purchase of electric appliances adds only a modest cost because it is assumed that most appliances would need replacement over the 20-year analysis period regardless. While this is economically sound, for many households an unexpected appliance purchase will be a large cost, and many will require support. BSL recommend that appliances are fully funded, certainly for low-income households, but this would not change the results of the cost-benefit analysis because it would be a wealth transfer.

Costs

How pruning costs are allocated will depend on decisions by regulators and policymakers, particularly the costs of decommissioning and appliance purchases, which do not have clear precedents. BSL assumes other costs would continue to be recovered as usual, for example electricity network upgrades being recovered from electricity customers.

⁸ This dynamic (electrification or energy efficiency lowering wholesale costs even for non-participants) occurs with large energy schemes such as Victorian Energy Upgrades (Jacobs 2019).

Our suggested approach

BSL envisages decommissioning and appliance purchases being at least partly recovered from remaining gas network customers, while keeping gas consumers' total expense less than BAU. If pruning costs more than BAU, government should fund any extra cost via new and existing subsidies. Households should not be out of pocket.

As well as funding electrification, our approach would mean that remaining gas users may be better off than in BAU because they would have a lower asset base to pay for via bills, and networks would face lower stranding risk.

This benefit to remaining gas users would be offset by pruning accelerating the departure of gas customers from the network, which raises gas bills. The proportion of pruning paid for by remaining gas users could be raised or lowered to meet different objectives: a lower proportion would be better for remaining gas users, but cost government more, and vice versa.

Costs could be allocated in other ways

Other approaches to allocating costs are also valid, with different advantages and disadvantages. For example, appliance and decommissioning costs could be entirely recovered from taxpayers or electricity network customers rather than gas customers. This would minimise cost pressures on gas bills, although it would arguably socialise risk otherwise faced by gas businesses.

Gas network shareholders could also contribute, reflecting the risk of their investments in declining infrastructure, although the mechanisms for doing this are not well-established. For example, regulators could possibly limit cost recovery of decommissioning costs from consumers under certain circumstances.

Table 3 presents BSL's view of the advantages and disadvantages of different sources of funding for electrification and gas decommissioning in a pruning scenario.

Table 3: Advantages and disadvantages of different sources of funding for electrification and gas decommissioning in a pruning scenario

Source of funding	Pros of funding via this source	Cons of funding via this source
Gas networks (recovered from gas consumers)	<ul style="list-style-type: none"> Similar to status quo; may more easily be accommodated by rules Pruning reduces risk/cost for gas consumers if it is depreciated faster than BAU and/or costs less than BAU Gas networks should face some risk to incentivise prudent investments 	<ul style="list-style-type: none"> Contributes to increasing gas prices, including by accelerating disconnections Funding anything from energy bills is regressive and raises bills Cannot be recovered over the long term (stranding risk)
Gas network shareholders	<ul style="list-style-type: none"> Shareholders should bear some risk and responsibility for networks' investments 	<ul style="list-style-type: none"> Mechanisms for doing this are not well-established
Government (ultimately taxpayers)	<ul style="list-style-type: none"> Most progressive option Does not contribute to rising prices 	<ul style="list-style-type: none"> Requires government spending Socialising risk otherwise faced by gas networks
Electricity networks (ultimately funded by electricity consumers, either via a levy ⁹ or through rates)	<ul style="list-style-type: none"> Does not contribute to gas death spiral – does not raise gas bills or increase stranding risk Could be funded over long term Electricity networks will benefit from increased electricity usage Some precedent – appliances are already partly subsidised through electricity bills¹⁰ 	<ul style="list-style-type: none"> May be administratively or legally difficult. Electricity businesses are mostly separate from gas ones Funding anything from energy bills is regressive and raises bills

⁹ A levy would involve a charge on bills to fund electrification, akin to how energy efficiency programs such as Victorian Energy Upgrades are funded.

¹⁰ Via schemes funded by consumer bills, such as Victorian Energy Upgrades and the Small-scale Renewable Energy Scheme.

Source of funding	Pros of funding via this source	Cons of funding via this source
Individuals	<ul style="list-style-type: none"> Does not impose material costs on others For appliances, this is the status quo: households are already responsible for most upgrade costs, other than government subsidies 	<ul style="list-style-type: none"> Unaffordable and inappropriate for low and even many medium-income households Likely to make voluntary pruning unviable Decommissioning street pipes does not logically fall on any individual

Timing of cost recovery

Timing is another consideration. If costs are recovered from gas customers, they should be charged over a shorter period than the BAU upgrade – perhaps five years – to lower the risk of stranded assets. If costs are recovered from tax or electricity users, they could be recovered over a longer period because these groups are not likely to shrink like gas customers.

That sounds like perfect sense ... It sounds really reasonable ... you're saving so much money.

– Female participant, 70–79 years, outright home owner

Absolutely. I mean if there's a better, more ecological way of doing it, absolutely go for it. Hundred per cent agree with it.

– Male participant, 30–39 years, private renter

Social research

The Life Course Centre's social research found a fairly high acceptance of electrification, including in a hypothetical pruning proposal. The capacity to adapt to electrification is informed by households' financial constraints, information barriers, relationship dynamics and life circumstances. These shape whether and how vulnerable households can participate.

Well, that's a lot of money considering it wouldn't cost that much to upgrade a house to all-electric.

– Female participant, 40–49 years, outright home owner

Some also pointed to the futility of upgrading a soon-to-be-redundant gas system:

If everyone's going to be switching further towards electricity, then it's pointless to be upgrading the gas.

– Female participant, 40–49 years, outright home owner

Opinions on pruning

Participants strongly supported a transition away from gas and recognised clear financial, environmental and safety benefits of electric appliances. When presented with a hypothetical scenario redirecting planned gas network spending towards household electrification, initial support was overwhelmingly positive. Households described this approach as making 'perfect sense', cost-effective and environmentally aligned with climate change targets:

Absolutely, one hundred per cent. I would rather it be moved to something like that that's more ecologically conscious and better for the long-term future than, you know, upgrading something that is probably going to ideally be gone in the near future itself anyway.

– Male participant, 30–39 years, private renter

Who should pay?

When asked how the electrification upgrades in this pruning scenario should be paid for, participants were more unsure. There was some support for the gas networks bearing the cost, but support was qualified when we explained that ultimately that cost would be borne by the remaining gas customers.

Three models were identified reflecting different emphases on government responsibility, industry contribution and household capacity. Overall, though, participants considered the question of who should pay to be dependent on multiple factors and hard to determine.

1. **Payment by electricity companies (or partnership with government),** with electricity sector contributions justified by direct commercial benefit from increased customer demand and government providing coordination, strategic planning and direct financial support.

[Electricity companies could] recover with their bills ... in the first three or four years by small increments because they'll have that many customers.

– Male participant, 70–79 years, private renter

2. **Government funding, or individual contributions only when supported by government subsidies or incentives,** with an emphasis on scaled financial assistance and accessible finance options.

I think the government should help because it's got an effect. If those people can save money, they're going to put money back into the community.

– Female participant, 50–59 years, outright home owner

[Low-income households] should definitely be given support.

– Female participant, 40–49 years, outright home owner

Maybe with these subsidies, maybe some sort of means test or something along the way. A single mother ... with a couple of kids, if she's lucky enough to own a house ... she'd be lucky to afford to buy a new stove when the old one packs it in.

– Male participant, 60–69 years, outright home owner

I am [and] a lot of people [are] on low income, I just think that if the government wants to make a change, then the government should cover everything.

– Male participant, 60–69 years, outright home owner

3. **Sharing between gas and electricity customers** to spread the burden fairly.

Just ... distribute the cost across both electricity and gas. That's fair because now the grid is like, getting taxed and then you will need to maintain that.

– Female participant, 50–59 years, outright home owner

What about holdouts?

Pruning would typically require 100 per cent agreement among affected householders to electrify (or switch to LPG), so even one holdout could stall the process for a whole street.

When asked what should happen if there was majority support but a small number of households hold out, responses were mixed. Some households endorsed information-led persuasion and neighbourhood encouragement. One household supported mandates, while another supported financial penalties designed to push households off gas. Some participants were uncomfortable forcing reluctant households to disconnect, with concerns centred on fairness, agency, resistance to top-down mandates and constraints such as health, old age or insecure housing.

Many participants expressed that it would be unfair to impose cost on low-income households. BSL agrees, and the intent of this pruning proposal is to fully fund electrification in low-income households, sparing them the cost of an unmanaged transition.

Selected responses are categorised below by the type of intervention they imply.

Many participants expressed that it would be unfair to impose cost on low-income households.

Table 4: Responses on type of intervention for electrification holdouts

Limited action	Information or persuasion	Incentives/penalties	Mandates
<p>'I wouldn't like to pressure anyone.' – Landlord of several properties</p> <p>'If I were the one that didn't really want to swap over ... I really wouldn't want to be asked to pay for it to electrify everything.' – Male participant, 18–24 years, home owner with mortgage</p>	<p>'You're never going to be able to convince a hundred per cent of people, but you should try as much as you can to sell the argument in a positive light.' – Male participant, 30–39 years, private renter</p> <p>'I think it depends on the information. If they got the information and they understand about the benefits, they will move, they will change ... I agree he needs to be encouraged.' – Male participant, 60–69 years, outright home owner</p>	<p>'Just bump up their bills so that they have to get off ... So they're going to have this massive gas bill and that's going to give them incentive to go off it. I don't think we need to make laws or regulations that tell people that they have to do something.' – Female participant, 70–79 years, outright home owner</p>	<p>'I'd be mandating it.' – Female participant, 40–49 years, outright home owner</p>

Engaging households

Engaging households emerged as a likely challenge for pruning, as found in previous studies. Among others, we interviewed participants of a real electrification project (Electri-FAIR-cation) run by AusNet and Gippsland Climate Change Network,¹¹ where engagement had been difficult even with an offer of around \$20,000 of free home upgrades. Many participants had been sceptical that the program was a scam or 'too good to be true', which was sometimes mitigated by talking to trusted neighbours, friends or organisations:

It's just hard to get the foot in the door to have the conversation. Once you start talking and people are actually listening ... then it became a little easier ... once you can convince them that this is not a scam ...

– Staff member connected to Electri-FAIR-cation

I just thought it was some sort of scam going around at the time. And then I started talking with a few people on the street.

– Male participant, 60–69 years, outright home owner

Challenges engaging and recruiting households are significant, even where there is no cost to households. Pruning efforts are more likely to be successful where they harness locally trusted groups and organisations. Even then, there are a range of reasons why households do not want to disconnect from gas.

Implication: Trust deficits, risk aversion among vulnerable households and reasonable energy security concerns will limit participation in electrification. Programs should invest in trust building through local intermediaries. Successful engagement involves partnerships with trusted community organisations, local councils, neighbourhood champions and peer networks.

¹¹ The Electri-FAIR-cation project provided fully funded electrification, solar and associated upgrades to households in selected streets in Gippsland. AusNet is a gas and electricity network operator, and this pilot occurred in their electricity network. BSL is on the reference group for the project in an unpaid capacity. The Life Course Centre researchers are also conducting separate research on Electri-FAIR-cation funded by AusNet.

Factors influencing electrification

Participants largely faced barriers to electrifying their homes without support. These include a lack of upfront cash, being a renter, and difficulty selecting upgrades and installers. Participants of Electri-FAIR-cation had these barriers addressed by the program and were mostly very positive about this support.

Social factors also emerged, such as sources of trusted information, advice from friends and family, health needs and life changes like retirement. For example, one participant electrified their stove primarily because they are vision-impaired and received advice that induction is safer than gas. Some participants reflected on past advice, including from government, that gas was formerly a cleaner and cheaper fuel than electricity.

Adaptive capacities and the rental triangle

Household capacity to electrify is enabled by outright home ownership, environmental motivation, sophisticated search processes, willingness to draw on diverse supports and ability to execute change. Financial constraints, disability, limited face-to-face and digital interactions and language barriers negatively affect participation.

The 'rental trio' – misaligned incentives, power imbalances and communication breakdowns – prevents energy upgrades in rental properties. Engagement efforts in the funded electrification program to engage real estate agents and landlords yielded minimal rental property participation. However, positive landlord-tenant relationships create openings for electrification discussions. In addition, clustered social housing offers scalable electrification opportunities through single landlord management.

Implication: Targeted outreach for renters and other households with low adaptive capacity are needed.

Upfront and hidden costs

With the support that is currently generally available, upfront costs – including appliances, electrical upgrades, retrofitting and new cookware – presented insurmountable hurdles to electrification for many, especially those living payday-to-payday or on fixed incomes. Some nearly electrified households chose to keep gas connections rather than incur 'last mile' upgrade costs such as abolishment fees and kitchen retrofits.

Substantial 'hidden labour' in researching, comparing options, understanding rebates and coordinating installations proved prohibitive for households managing precarious work, caring duties or health challenges. Electri-FAIR-cation's comprehensive support was essential – participants said they would not have known where to start otherwise. Information alone proved insufficient without supported navigation.

Implication: Electrification support must address both financial barriers and hidden labour costs through comprehensive, end-to-end assistance, not just rebates and information alone. Programs should assist with navigation support that reduces search costs, brokers trusted installers and manages coordination.

The reliability premium

Willingness to electrify is influenced not just by cost but also by concerns for reliability and independence during blackouts. The 'reliability premium' – the value placed on energy autonomy and security – may be more prevalent in specific parts of the network, especially in rural/regional areas.

Implication: Failure to address reliability concerns through tangible measures will jeopardise electrification efforts especially in rural and regional areas. Programs should integrate backup solutions as standard upgrade pathways rather than positioning electrification as all-or-nothing.

Housing and health

Energy upgrade decisions are embedded in broader life circumstances. Housing transitions, health events, employment changes or major repairs create windows of opportunity or additional barriers for participation.

Health acts as both a motivator and a barrier. Some health conditions drove transitions with specialised service providers creating pathways to electrification advice and support programs. Conversely, specific health requirements sometimes constrained transitions, for example for a household with high hot water needs that may be harder to meet with electric appliances. Health issues simultaneously heightened awareness of gas-related risks while increasing energy vulnerability and sometimes limiting capacity to pursue upgrades.

Implications: Electrification programs should be designed with flexible entry points and coordinated referral pathways that recognise housing–health–energy intersections. Electrification support should ideally be accessible through existing touchpoints such as healthcare and disability providers, emergency repair schemes etc. This could enable automatic referrals when households are already navigating change rather than requiring separate, self-initiated engagement.

For further findings from the social research, see Chandrashekeran and Kaye (2026).

The need for a framework, more information, and other barriers

BSL found regulatory barriers to pruning in Australia, including the lack of a framework for comparing pruning to proposed gas spending. We suggest a framework for how pruning proposals should be financially assessed in *Sunk costs*, including factors like the cost of electrifying appliances, upgrading the local electricity system and decommissioning the local gas system. We explain how this could fit into a process for implementing pruning in the following section.

In our *Sunk costs* report, we also researched the availability of the information that would be needed to assess a proposal to prune a given area (i.e. inputs to our proposed framework). We found that much of this information is not public and, where it is available, is inaccessible and would be difficult for non-experts to understand. Improving access to information, for example through a user-friendly online map (as California and Zurich have¹²), would make the gas transition easier.

Other barriers that may need to change include laws creating a need for 100 per cent of affected households to agree to disconnect; disincentives for gas businesses to shrink their networks; the legal definition of ‘pipeline services’; and a lack of fit-for-purpose gas rules covering topics like redundant assets and whether electrification can be counted as spending by gas networks. See the *Sunk costs* framework for further detail.

More broadly, pruning is unlikely to take place beyond small pilots until governments – probably at state/territory level – make policy to guide winding down and decommissioning gas networks. Energy regulators are unlikely to make the changes necessary to enable pruning until this policy exists.

BSL found regulatory barriers to pruning in Australia, including the lack of a framework for comparing pruning to proposed gas spending.

¹² See <https://www.cpuc.ca.gov/industries-and-topics/natural-gas/SB-1221-implementation> and <https://www.stadt-zuerich.ch/energis/frontend/#/> (German language, accessed via translation).

7 Policy recommendations

This section presents BSL’s policy recommendations, based on our own research and our analysis of the commissioned research.

How pruning could be implemented in Australia

The best way to implement pruning in Australia would be to create a requirement for proposed gas replacement (and potentially augmentation) spending to be compared with electrification, and to proceed with electrification if certain criteria are met (e.g. if electrification is above a certain economic threshold and technically viable). This is the process proposed in some American states, where it is called a non-pipeline alternative (NPA).

In *Sunk costs*, we propose selection criteria and a framework that could be used for this assessment, and the cost-benefit analysis we performed is similar to the assessment that could be undertaken for each place with planned gas upgrades. We found that much of the

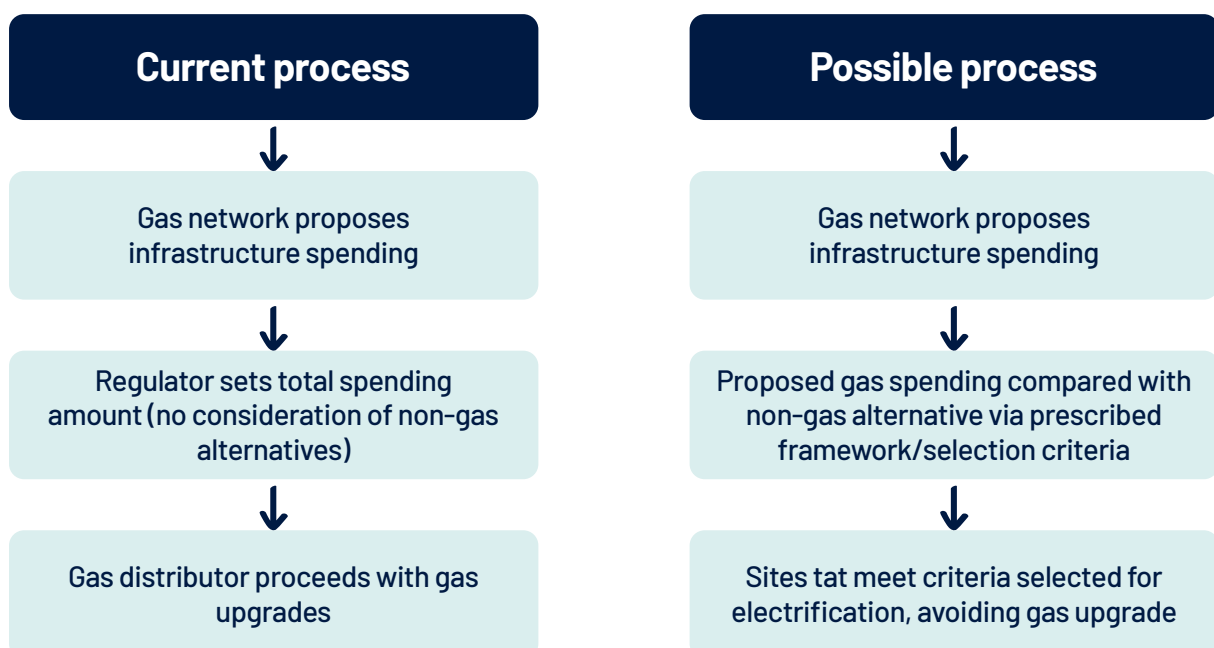
information necessary for this framework is not public, and recommend requirements to increase transparency from gas networks (as Victoria is currently considering).

Another way to implement pruning would be for a government body or regulator to review whole gas networks and identify opportunities to prune.

How funding should work

Funding for pruning could be recovered in multiple ways depending on the objectives. We recommend recovering at least some of the cost from remaining gas users but keeping their expense less than BAU. This is explained below. Other approaches, such as recovering more cost from taxpayers, would have other advantages and disadvantages.

Figure 6: Simplified existing process and possible pruning process



If pruning costs less than BAU

We recommend that, if pruning costs less than BAU, funding for decommissioning and household electrification upgrades in pruning should come from avoided gas spending and be recovered from gas bills (see Figure 7). The benefit of pruning is that it unlocks this source of funding, which could be redirected from polluting, soon-stranded gas pipes to electrifying households.

Remaining gas users may also benefit in this situation if their costs are lower than BAU, meaning they pay less for the gas network than they would otherwise. This may be offset by customers leaving gas faster, which raises bills. It may be possible to determine a threshold where remaining gas users are better off, for example pruning expenses being recovered from gas bills up to 70 per cent of the cost of BAU.

Pruning also lowers the future value of stranded assets likely to be ultimately bailed out by governments.

Other approaches are also valid. The cost of appliances and/or decommissioning could also come from taxpayers or electricity users if the objective was to minimise pressure on gas bills. However, this would socialise some risk otherwise faced by gas networks.

If pruning costs more than BAU

If the cost of pruning exceeds the BAU gas replacement cost, funding should still come from avoided gas spending up to the value of the BAU replacement (or up to a certain percentage of BAU), with government funding this gap, using both new and existing subsidies. In this case, the cost to other gas users would still be around BAU. See Figure 7.

Another way to fund the gap, often suggested by our social research participants, is to recover costs over time from electricity users. Gas network shareholders could also contribute, although this is not established practice. Either way, low-income households should always be fully funded to electrify in a pruning scenario.

Funding for required electricity network upgrades could come from electricity customers via the normal means.

Figure 7: Illustration of funding in a scenario where electrification is cheaper than BAU

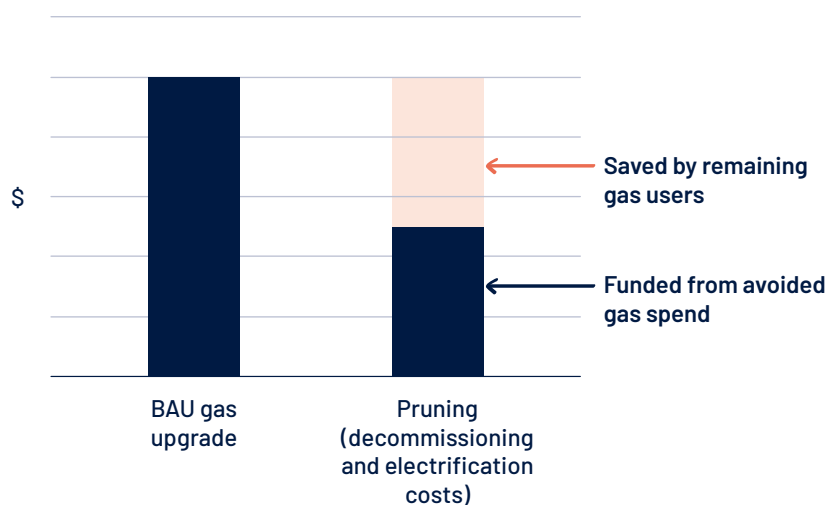
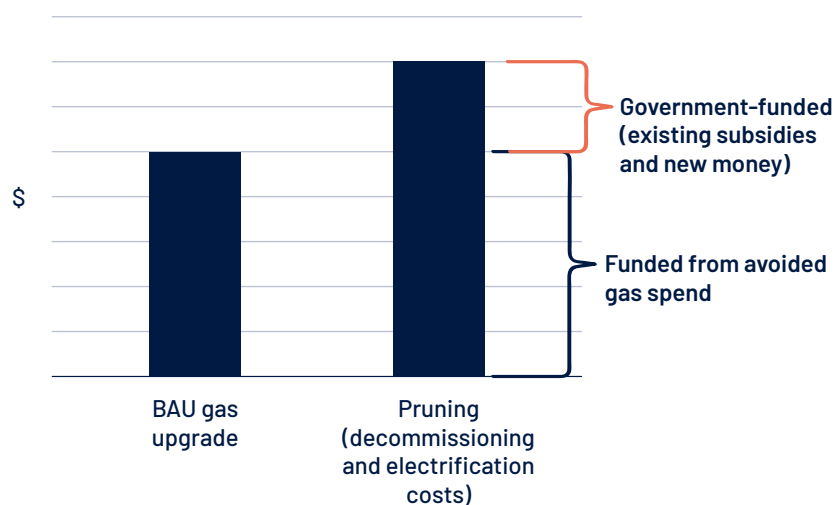


Figure 8: Illustration of funding in a scenario where electrification costs more than BAU



Recommendations

Table 5: Implementation considerations we recommend

Consideration	Recommendation
Equity provisions	Target pruning to lower-socioeconomic-status areas first with full funding for low-income households
Cost threshold	Require assessment of all proposed gas infrastructure spending above a relatively low cost threshold. Allow simplified assessment for small projects (to avoid performing costly cost-benefit analysis for every project)
Obligation to serve customers with gas	Over time, loosen the requirement for 100% of affected households to opt in to electrification (for example, California is trialling only requiring agreement from two-thirds of households). Before they are allowed to disconnect areas, distributors should be required to ensure households have received appropriate support, including full funding for electrification (or LPG, if the households wishes to retain gas) in low-income households
Who does the engagement and electrification work?	Options include a government body, tendering out these functions or employing local community organisations to engage households. Gas networks have disincentives to do this work effectively at present
Funding	Should come from avoided gas spending up to the value of the BAU gas upgrade (or up to a certain threshold if this leaves remaining gas users better off). If there is a gap, it should be funded by government or electricity users over time. See 'funding', above, for more detail

Recommendations:

Governments and regulators should develop and operationalise a process to avoid further gas network spending where it can be avoided through electrification, in line with our implementation considerations described above.

Regulators should undertake a review of the availability of gas network information with a view to increasing transparency.

Complementary policy

Pruning is only one part of the gas transition puzzle. Governments should develop a full suite of policies to wind down gas networks in line with their climate commitments, including improving planning processes and restricting new connections and appliances to prevent the problem growing.

Recommendations:

Regulators should initiate a review of gas network planning processes to make them fit for purpose for a declining gas network, considering scenarios for a gas network death spiral and for non-network solutions to replacement expenditure.

State/territory governments should ban new home gas connections as soon as possible where this has not already occurred.

State/territory governments should investigate banning new commercial connections where viable.

State/territory governments should phase out the sale of new gas appliances to existing homes.

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Balancing act

Project report on pruning gas networks

David Bryant and Damian Sullivan

2026

Acknowledgement of Country

The Brotherhood of St. Laurence acknowledges the Traditional Custodians of the land and waterways on which our organisation operates. We pay our respects to Aboriginal and Torres Strait Islander Elders past and present.



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