Victoria's Gas Endgame: An Orderly and Equitable Transition for All Victorians

Submission to the Legislative Council Inquiry into the Future of Gas Infrastructure

Executive Summary: A Call for Prudent Leadership

The Victorian residential gas distribution network faces an unavoidable and terminal decline. This is a direct consequence of gas for homes being unable to compete with electricity on cost, convenience or decarbonisation.[1] Victorian Government policy, principally the *Gas Substitution Roadmap*, aimed at meeting the state's legislated climate targets reflects this.[2]

The immediate challenge facing the Parliament, therefore, is one of prudent economic management: how to navigate this transition in a way that is orderly, cost-effective, and fair for all Victorians. The choice is not *whether* a transition will happen, but whether it will be a strategically managed process or a chaotic, costly collapse that harms the most vulnerable.

The national economic framework governing these networks, designed for stable or growing monopolies, is fundamentally unfit for an era of decline.[3] This misalignment between state policy and national regulation guarantees a "death spiral" of escalating connection fees for those who remain on the network.[4] This is not a distant problem; it is a consumer protection crisis in the making. Without intervention, the fixed portion of gas bills is set to skyrocket. Independent modelling by CSIRO for Energy Consumers Australia projects the network component of household gas bills could more than quadruple by 2050.[5] VEFN's own analysis[6] indicates the annual fixed connection charge could rise by 50% from around $336 today by 2035, triggering accelerated exodus and rapid collapse. This is a future where a pensioner in a rental property sees their fixed connection charge climb towards $1000 a year, forcing them to choose between heating and eating because they lack the capital or agency to electrify.

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[1] IEEFA. (2025). Electrification regulations to benefit Victorians, but no time for delays. Retrieved from [https://ieefa.org/articles/electrification-regulations-benefit-victorians-no-time-delays]
[2] Energy Victoria. (2024). Gas Substitution Roadmap update 2024.pdf. Retrieved from [https://www.energy.vic.gov.au/renewable-energy/victorias-gas-substitution-roadmap/gas-substitution-roadmap-update-2024.pdf]
[3] AEMC. (2026). Consultation paper National Gas Rule Amendments 2026 (Gas networks in transition). Retrieved from [https://www.aemc.gov.au/sites/default/files/2025-09/Consultation%20paper%20-%20GRC0082%20-%20Gas%20networks%20in%20transition.pdf]
[4] Environment Victoria. (2025). Put people before profits to avoid a gas network 'death spiral'. Retrieved from [https://environmentvictoria.org.au/2025/08/06/put-people-before-profits-to-avoid-a-gas-network-death-spiral/]
[5] Energy Consumers Australia. (2025). Gas Distribution Network Rule Change Requests. Retrieved from [https://www.aemc.gov.au/media/103465]
[6] Victorian Energy Future Network (VEFN). (2025). Victoria's Gas Endgame: Modelling and Analysis. Retrieved from [https://www.vefn.au/#h.bz14m2gdcyuy]

This submission presents a constructive, expert-led plan to help the government successfully implement its own stated policy and manage the significant economic and social risks. Inaction is not a viable option. The recent decision from Solstice Energy to cease gas supply to ten regional towns, citing financial non-viability, serves as a stark warning.[7] This event transforms the "death spiral" from an abstract economic model into a concrete reality that has already harmed Victorians. The political burden of proof has inverted: it is now incumbent on advocates of a market-led approach to explain how they would prevent this exact scenario from repeating on a statewide scale.

This transition should not however be viewed as a cost, but as a fundamental modernisation of Victoria's energy system that unlocks substantial and lasting benefits. It is a chance to lower energy bills for households and businesses, create thousands of new, secure jobs in regional Victoria, and establish healthier homes and communities. Analysis by the Institute for Energy Economics and Financial Analysis (IEEFA) shows that a single Victorian home can save over $1,300 per year by fully electrifying, with statewide net benefits in the billions.[8] The revival of the State Electricity Commission (SEC) is expected to help create 59,000 jobs, many in regional Renewable Energy Zones, driving investment and prosperity outside the metropolitan corridor.[9] Furthermore, removing polluting gas appliances from homes delivers a major public health dividend, with landmark research attributing 12% of the childhood asthma burden in Australia to gas stove use.[10]

This submission directly assists the Legislative Council Environment and Planning Committee by providing direct answers to its key Terms of Reference, including the socio-economic scale of the challenge **(ToR a, b)**, the failure of current regulatory frameworks **(ToR c, d)**, opportunities for regional employment **(ToR e)**, community and Traditional Owner engagement **(ToR f)**, and a permanent solution to fugitive methane emissions **(ToR g, h)**.

Central to the proposed strategy is the argument for a just transition that protects the most vulnerable. VEFN's core recommendations are for the Victorian Government to lead this transition proactively, guided by mandated five-year Gas Transition Plans from network businesses and overseen by a new, dedicated Gas Transition Authority. It is urged that the Committee endorse this prudent and pragmatic path to avert a predictable crisis and secure an orderly, equitable, and prosperous energy future for all Victorians.

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[7] Premier of Victoria. (2025). Support For Solstice Customers To Make The Switch. Retrieved from [https://www.premier.vic.gov.au/support-solstice-customers-make-switch]

[8] IEEFA. (2025). Electrification regulations to benefit Victorians, but no time for delays. Retrieved from [https://ieefa.org/articles/electrification-regulations-benefit-victorians-no-time-delays]

[9] Vic.gov.au. (2022). Supporting clean economy ambitions/sec-government-owned-renewables. Retrieved from [https://www.vic.gov.au/victorian-skills-plan-2023-publication/supporting-clean-economy-ambitions/sec-government-owned-renewables#:~:text=The%20Victorian%20Government%20is%20bringing,and%20help%20create%2059%2C000%20jobs.]

[10] Medical Journal of Australia. (2018). Damp housing, gas stoves, and the burden of childhood asthma in Australia. Retrieved from [https://www.mja.com.au/journal/2018/208/7/damp-housing-gas-stoves-and-burden-childhood-asthma-australia]

Table of contents

Victorian Energy Future Network www.vefn.au

VEFN is a network of volunteer experts helping policymakers plan the gradual shutdown of gas distribution systems in Victoria, with lessons that could inform Australia's broader energy transition. Our team develops expert policy advice for the government to accelerate Victoria's transition to a clean energy future.

We focus on creating a policy landscape that enables all Victorians to eventually live in healthier, safer, and more comfortable all-electric homes.

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Part 1: The Unavoidable Choice: A Managed Transition or a Chaotic Collapse

A State-Led Transition Demands a State-Led Plan

The transition away from the residential use of fossil gas is not a speculative market trend but a direct and intended consequence of Victorian Government policy. The publication of *Victoria's Gas Substitution Roadmap* in July 2022, followed by the landmark decision to ban new gas connections to residential properties from January 2024, represents a clear and irreversible directive to decarbonise the state's built environment.[11] This policy direction is essential for Victoria to meet its legislated climate targets, including net-zero emissions by 2045, and is supported by recommendations from the Independent Expert Panel on Victoria's 2035 Climate Target, which called for an acceleration of the gas phase-out.

Having initiated this transition, the government now has a clear duty to manage its consequences. VEFN supports this strategic direction. This submission offers a constructive, evidence-based plan to help the Government successfully implement its policy in an orderly, equitable, and cost-effective manner.

The Scale of the Challenge

In addressing the Committee's inquiry into the **scale and nature of infrastructure requiring decommissioning (ToR a, b)**, it is crucial to understand the unique complexity of the residential distribution network. While other assets like offshore wells present significant engineering challenges, the 34,000 km distribution network represents the most profound public policy and social equity challenge due to its interface with over 2.2 million customers.[12]

Victoria is the largest user of fossil gas in Australia, with approximately 8 in 10 homes connected to the network.[13] To meet climate targets consistent with scenarios outlined by the Australian Energy Market Operator (AEMO), the pace of change required is daunting. Achieving AEMO's Orchestrated Step Change scenario requires Victoria to reduce fossil gas consumption by 44 petajoules (PJ) by 2030.[14] This is roughly equivalent to electrifying 880,000 homes,[15] which would necessitate transitioning more than 500 homes from gas to

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[11] Energy Victoria. (2024). Gas Substitution Roadmap update 2024.pdf. Retrieved from [https://www.energy.vic.gov.au/renewable-energy/victorias-gas-substitution-roadmap/gas-substitution-roadmap-update-2024.pdf]

[12] Energy Consumers Australia. (2025). Gas distribution networks - Improving gas distribution planning requirements.pdf. Retrieved from [https://www.aemc.gov.au/sites/default/files/2025-02/New%20rule%20change%20proposal%20-%20Energy%20Consumers%20Australia%20-%20Gas%20distribution%20networks%20-%20Improving%20gas%20distribution%20planning%20requirem.pdf]

[13] Premier of Victoria. (2023) New Victorian Homes To Go All Electric From 2024. Retrieved from [https://www.premier.vic.gov.au/new-victorian-homes-go-all-electric-2024]

[14] AEMO. (2024). Victorian Gas Planning Report Update March 2024. Retrieved from [https://www.aemo.com.au/-/media/files/gas/national_planning_and_forecasting/vgpr/2024/2024-victorian-gas-planning-report-update.pdf]

[15] AER. (2020). Residential energy consumption benchmarks: AER - 9 December 2020. Retrieved from [https://www.aer.gov.au/system/files/Residential%20energy%20consumption%20benchmarks%20-%209%20December%202020_0.pdf]

all-electric every single day between now and 2030. This represents a "very significant increase on current rates of electrification and energy efficiency improvements",[16] and underscores the necessity of a strategic, well-resourced, and planned approach over ad-hoc, market-driven measures.

The Canary in the Coal Mine: Solstice Energy and Regional Collapse

The urgent need for a managed, state-led retirement of the gas network is no longer a future prospect. In 2025, Solstice Energy announced it would be shutting down its compressed natural gas (CNG) networks in ten regional Victorian towns, including Lakes Entrance, Orbost, Swan Hill, and Nathalia, impacting over 1,100 households and businesses.[17] The company cited the financial non-viability of its trucked gas system amid rising operational costs and a declining customer base.[18]

This decision is the first concrete example of the gas network "death spiral" in action in Victoria. For the affected communities, it has created significant shock and uncertainty, with residents and businesses facing the sudden need to transition to either bottled LPG or electric appliances.[19] While the Allan Labor Government's support package is welcome, the event serves as a powerful case study of the chaotic and inequitable consequences of an unmanaged, market-led collapse. It demonstrates unequivocally that a hands-off approach leads to service withdrawal, leaving communities to navigate a complex and costly transition on their own.

The Cost of Inaction

The Solstice Energy case transforms the abstract concept of a "death spiral" into a concrete event that has already harmed Victorians. It fundamentally shifts the political burden of proof. It is no longer incumbent on proponents of intervention to prove a market-led approach will fail; it is now incumbent on advocates of a market-led approach to explain how they would prevent this exact scenario from repeating on a statewide scale.

Leaving the transition to the market will inevitably lead to more such cases, creating patchworks of stranded customers and deepening energy poverty. The most prudent and economically responsible path forward is an orderly retirement of the network, conducted on a staged, geographical basis. The choice is no longer between intervention and non-intervention; it is between a planned, equitable transition and a chaotic, costly, and unjust collapse.

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[16] Independent Expert Panel's Report on Victoria's 2035 Climate Action Target. (2023). https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0028/635167/Independent-Expert-Panel_Victorias-2035-Climate-Action-Target_Driving-Growth-and-Prosperity.pdf

[17] Dairy News Australia (2025) "Left in the Dark". Retrieved from [https://www.dairynewsaustralia.com.au/news/left-in-the-dark-3]

[18] Peter Walsh, Member for Murray Plains (2025). Retrieved from [https://www.peterwalsh.org.au/media/walsh-says-compressed-gas-network-will-close-in-2026]

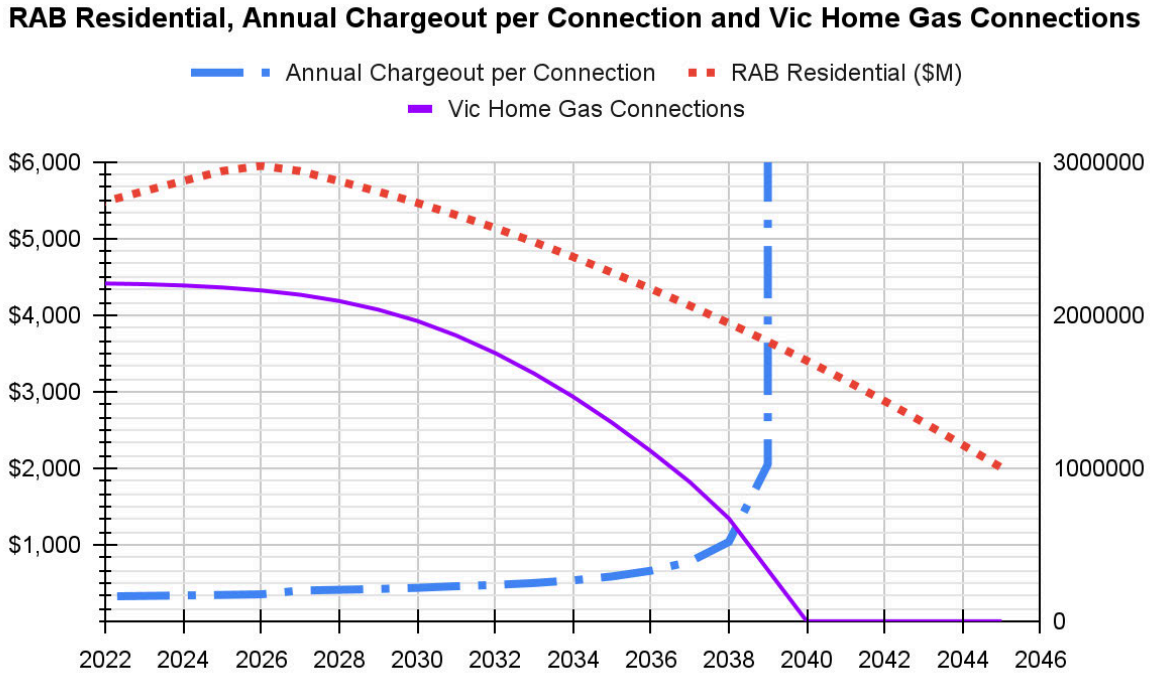
[19] 1332 3SH. (2025). No Gas Supply- Swan Hill. Retrieved from [https://3sh.com.au/articles/no-gas-supply-swan-hill/]

Part 2: An Economic Framework Built for Yesterday's World

The primary obstacle to an orderly gas transition directly relates to the Committee's investigation of the *adequacy of the Victorian Government's regulatory powers* **(ToR c)**. The national economic framework, overseen by the Australian Energy Regulator (AER), was designed for a stable, perpetual monopoly and is fundamentally unfit for purpose in an era of planned, policy-driven decline.[20] Its structure not only fails to manage the transition but actively creates outcomes that are detrimental to Victorian consumers, guaranteeing a future of escalating costs and profound inequity. The AEMC have written a discussion paper[21] on this topic and are seeking feedback. VEFN will make a submission.

The 'Death Spiral' Explained

Gas connection fees are determined purely by allocating allowed capital and operating distribution costs (excluding gas use) across the currently connected customers.



A scenario from the VEFN modelling[25] showing rising connection charges leading to a "tipping point". In this case over $3.5B of the Regulated Asset Base is left stranded with no customers left to pay charges.

The determination of gas distribution costs is based on a "building block" revenue model, where the AER sets the total revenue the network business can recover from its customers over a five-year period.[22] A crucial feature of this model is that over 95% of these costs are

[20] IEEFA. (2023). IEEFA Submission to AER: Gas distribution network tariffs review 2023. Retrieved from [https://ieefa.org/sites/default/files/2023-07/AER%20gas%20distribution%20network%20tariffs%20review%20-%20IEEFA%20submission%20-%2016%20June%202023.pdf]

[21] AEMC. (2026). Consultation paper National Gas Rule Amendments 2026 (Gas networks in transition). Retrieved from [https://www.aemc.gov.au/sites/default/files/2025-09/Consultation%20paper%20-%20GRC0082%20-%20Gas%20networks%20in%20transition.pdf]

[22] AER. (2017). WACC – Overview of our framework, the economics and related law, AER December 2017. Retrieved from

effectively fixed; they relate to the capital and operating costs of the physical network and do not change significantly with the volume of gas consumed. The cost is in the connection (and pipelines behind it), not the consumption.

This model is stable only when the customer base is steady or growing. The model breaks down completely when faced with a permanent decline in customer numbers. The fixed revenue requirement must be divided by a falling number of customers, a simple mathematical equation that guarantees an exponential rise in the fixed connection charge for those who remain. As costs rise, more households and businesses will electrify, further diminishing the customer base for gas and exacerbating the financial pressures on the remaining users. This is the "death spiral".[23] This dynamic directly exacerbates the cost-of-living pressures that are a key concern for the community and its representatives.

Independent modelling conducted by CSIRO for Energy Consumers Australia projects that under a central planning scenario, the network component of household gas bills could more than quadruple from roughly $280 per year today to $1,170 in 2050.[24] VEFN's own analysis[25] indicates the annual fixed connection charge could rise by 50% from around $336 today by 2035, triggering accelerated exodus and then rapid collapse. This creates a severe energy poverty trap for those least able to leave the network, such as low-income households, renters[26], and residents of apartments who may face high retrofit costs.

A Legacy of "Supernormal Profits"

The regulatory framework has not only proven unfit for the future but has also failed to adequately protect consumers in the past. A comprehensive analysis of the Weighted Average Cost of Capital (WACC)—the regulated rate of return network owners are allowed to earn—reveals that the framework has been historically "too generous".[27] An extensive review by the IEEFA, based on the AER's own data, found that Australia's regulated gas networks earned an estimated $1.8 billion in "supernormal profits" between 2014 and 2022. This was in addition to their regulator-approved or "allowed" profit of $2 billion, meaning their actual profits were nearly double the intended allowance.

These excess profits, which IEEFA estimates added an average of 5% to a typical household gas bill each year, were not the result of exceptional efficiency gains.[28]

[https://www.aer.gov.au/system/files/AER%20information%20session%20two%20-%20Overview%20of%20WACC%20-%206%20December%202017.pdf]

[23] Environment Victoria. (2025). Put people before profits to avoid a gas network 'death spiral'. Retrieved from [https://environmentvictoria.org.au/2025/08/06/put-people-before-profits-to-avoid-a-gas-network-death-spiral/]

[24] Energy Consumers Australia. (2025). Gas Distribution Network Rule Change Requests. Retrieved from [https://www.aemc.gov.au/media/103465]

[25] Victorian Energy Future Network (VEFN). (2025). Victoria's Gas Endgame: Modelling and Analysis. Retrieved from [https://www.vefn.au/#h.bz14m2gdcyuy]

[26] Grattan Institute. (2025). The energy transition could make Australia more unequal. Retrieved from [https://grattan.edu.au/news/the-energy-transition-could-make-australia-more-unequal/]

[27] IEEFA. (2024). Gas networks pocket $1.8 billion in supernormal profits over eight years. Retrieved from [https://ieefa.org/articles/gas-networks-pocket-18-billion-supernormal-profits-over-eight-years]

[28] IEEFA. (2024). Australians overpaid $1.8 billion to gas networks – now they're being asked for more. Retrieved from [https://ieefa.org/resources/australians-overpaid-18-billion-gas-networks-now-theyre-being-asked-more]

They were primarily driven by two systemic flaws in the regulatory model:

1. **Revenue Over-Recovery:** Actual gas demand consistently exceeded the forecasts used by the AER to set prices. Because networks operate under a price cap, they retain the excess revenue from these higher-than-expected sales. The persistence of this "error" for over a decade suggests a structural bias that has consistently benefited network owners at consumers' expense.

2. **Outperformance on Cost of Debt:** During a long period of declining interest rates, networks were able to borrow money more cheaply than their regulatory allowance, which was based on a 10-year trailing average of bond yields. The difference between the actual and allowed cost was retained as profit.

While industry bodies and the AER have argued that this outperformance is simply "incentive-based regulation working as intended," the IEEFA analysis shows no strong correlation between these excess profits and genuine productivity improvements. The evidence suggests these profits were "extracted rather than earned," representing a multi-billion-dollar transfer of wealth from a captive customer base to the shareholders of monopoly businesses. Network operators have been guaranteed a rate of return on investment because they are regulated monopolies, yet they have received higher returns.

This history is critical, as it provides the ethical and economic justification for a "shared responsibility" model for transition costs. In 2021 New Zealand introduced legislation[29] to ensure that fossil fuel companies who had profited from infrastructure bore the liability for decommissioning.

Transferring Risk to Consumers: Accelerated Depreciation

Faced with the undeniable risk of asset stranding, the regulator's primary response has been to approve "accelerated depreciation".[30] This allows network owners to recover their capital costs more quickly from the current, larger customer base. In the current 2023-28 regulatory period, this practice is already costing Victorian households hundreds of millions of dollars. For example, the AER approved accelerated depreciation allowances of $105 million for AusNet and $53 million for Multinet.[31]

This is a direct and explicit transfer of financial risk. In simple terms, Victorians are being asked to pay higher gas bills today to protect shareholders. This is an ad-hoc approach that places 100% of the transition risk onto remaining consumers and underscores the urgent need for a more holistic and equitable solution led by the government.[32]

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[29] New Zealand Government. (2021). Crown Minerals (Decommissioning and Other Matters) Amendment Bill. Retrieved from [https://www.legislation.govt.nz/bill/government/2021/0047/8.0/d7066895e2.html]
[30] AEMC. (2025). Gas distribution network rule change requests. Retrieved from [https://www.aemc.gov.au/media/103464]
[31] AER. (2023). Report template - Australian Energy Regulator. Retrieved from [https://www.aer.gov.au/system/files/AER%20-%20AusNet%202023-28%20-%20Final%20decision%20-%20Attachment%204%20Regulatory%20depreciation%20-%20June%202023.pdf]
[32] Energy Consumers Australia. (2025). Gas distribution networks - Improving gas distribution planning requirements.pdf. Retrieved from [https://www.aemc.gov.au/sites/default/files/2025-02/New%20rule%20change%20proposal%20-%20Energy%20Consumers%20Australia%20-%20Gas%20distribution%20networks%20-%20Improving%20gas%20distribution%2

The table below provides a summary of these failures and their costs to Victorians.

Table 1: The Failure of the Regulatory Framework

The Flaw	The Mechanism	The Cost to Victorians
The 'Death Spiral'	Fixed revenue model with a declining customer base	Network component of gas bills projected to more than quadruple by 2050[33]
Supernormal Profits	Systemic under-forecasting of demand and out-performance on debt costs	An estimated $1.8 billion in excess profits extracted from consumers (2014-2022)[34]
Unfair Risk Allocation	Use of accelerated depreciation to de-risk private assets	An additional $158 million+ in charges for Victorian households in the current regulatory period[35]. Increasing fixed charges will accelerate disconnections and the death spiral.
Perverse Investment Incentives	Rate of return incentives applied to capital expenditure on a declining network	Wasted investment in soon-to-be-obsolete assets, deepening the stranded asset problem[36]

0planning%20requirem.pdf]

[33] Energy Consumers Australia. (2025). Gas Distribution Network Rule Change Requests. Retrieved from [https://www.aemc.gov.au/media/103465]

[34] IEEFA. (2024). Gas networks pocket $1.8 billion in supernormal profits over eight years. Retrieved from [https://ieefa.org/articles/gas-networks-pocket-18-billion-supernormal-profits-over-eight-years]

[35] AER. (2023). Report template - Australian Energy Regulator. Retrieved from [https://www.aer.gov.au/system/files/AER%20-%20AusNet%202023-28%20-%20Final%20decision%20-%20Attachment%204%20Regulatory%20depreciation%20-%20June%202023.pdf]

[36] AEMC. (2026). Consultation paper National Gas Rule Amendments 2026 (Gas networks in transition). Retrieved from [https://www.aemc.gov.au/sites/default/files/2025-09/Consultation%20paper%20-%20GRC0082%20-%20Gas%20networks%20in%20transition.pdf]

Part 3: Competing Narratives: Electrification & Biogas

The primary counter-narrative to the planned retirement of the gas distribution network comes from the gas industry, which promotes a vision of decarbonising the existing network with "renewable gas" as a lower-cost alternative to electrification.[37] This argument is designed to create policy uncertainty, delay action, and protect the value of network assets at the direct expense of Victorian consumers.

The 'Renewable Gas' Fallacy: An Unviable and Costly Distraction

The gas industry's "Gas Vision 2050" argues that existing infrastructure can be repurposed for hydrogen and biomethane.[38] This narrative must be exposed as an economically unviable strategy that serves shareholder interests.

While biogas has a role in localised industrial settings, the extensive industrial processing required to upgrade biogas to the safety and quality standards of the public grid is not scalable or economic for the residential network.[39] The inherent variability and composition of raw biogas; typically containing only 50-70% methane and significant impurities like carbon dioxide, water, and corrosive hydrogen sulfide make it incompatible with the millions of household appliances calibrated for a consistent, high-energy fuel. Using biogas for high temperature industrial applications is distinct from the core task of managing the orderly retirement of the public residential network through electrification.

Parameter	Public Residential Network	Localised Industrial Network
Target End-User	Millions of residential & commercial customers with standard appliances	Single, large industrial user with specialised equipment
Required Gas Quality	Very high (>95% methane); must meet strict national standards	Bespoke; negotiated between parties and fit-for-purpose
Governing Framework	National Gas Rules; Australian Energy Regulator (AER)	Private Commercial Contract; safety/environmental permits
Infrastructure Model	Shared public distribution network	Dedicated, private point-to-point pipeline
Scalability for Residential Decarbonisation	Extremely low; prohibitively expensive and technically complex	Not applicable; serves industrial decarbonisation only

The government's own Bioenergy Roadmap identifies its best use in hard-to-abate sectors

[37] Energy Networks Australia. (2025). Gas Vision 2050, Our plan for a Decarbonised Network. Retrieved from [https://www.energynetworks.com.au/projects/gas-vision-2050]
[38] Australian Gas Infrastructure Group. (2025). Gas Vision 2050. Retrieved from [https://www.agig.com.au/gas-vision-2050]
[39] Noviqtech (2025). Where Bioenergy Fits in Australia's Net Zero Plan (2025 Update) Retrieved from [https://noviqtech.com/articles/how-the-bioenergy-roadmap-shapes-australia-s-net-zero-plan]

like transport and industry, not mass residential heating.[40] [41] Burning biomethane for low-temperature uses like residential hot water or space heating is an inefficient use of a valuable, limited resource that could be used for industry or transport.

Similarly, "green hydrogen" is not a silver bullet for home heating. Its production is extremely energy-intensive and currently expensive. The Australian Government's strategy rightly focuses on developing hydrogen for export and for industrial uses where electrification is difficult, not for burning in homes.[42] A residential hydrogen network would require a massive overbuild of renewable electricity generation to create the fuel, plus the cost of upgrading the 34,000 km distribution network and replacing every single household appliance to be hydrogen-compatible. This is demonstrably more expensive and complex than a managed electrification pathway, and locks consumers into a perpetually more expensive fuel source.

A Modern Grid for Modern Homes: Managing the Electricity Transition

Opponents of a planned transition often raise concerns about grid impacts, citing modelling that assumes an uncoordinated, chaotic shift.[43] The VEFN plan, with its proposed Gas Transition Authority (GTA) and staged, geographical approach, is designed specifically to prevent this outcome.

Energy Networks Australia warns of winter peak demand overwhelming the grid.[42] However, AEMO's own forecasts show that while winter peaks can occur, summer peak demand remains the primary concern in Victoria, and significant new generation and storage capacity is already planned to come online.[44] AEMO also highlights the growing challenge of daytime solar surplus driving minimum demand towards zero, which requires new ways to manage the grid.[43]

A managed transition turns this challenge into an opportunity. The proposed GTA, working with the SEC and AEMO, would ensure a staged rollout where electricity network upgrades *precede* gas decommissioning on a zone-by-zone basis. Furthermore, it can promote "smart electrification", using appliances like home batteries, heat pump hot water systems and EV chargers to soak up cheap daytime solar and reduce evening peaks. This turns electrified homes from a grid "problem" into a grid "asset," enhancing stability and lowering costs for all.

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[40] ARENA. (2021). Australia's Bioenergy Roadmap. Retrieved from [https://arena.gov.au/assets/2021/11/australia-bioenergy-roadmap-report.pdf]
[41] Sustainability Victoria. (2025). Bioenergy circular economy opportunities. Retrieved from [https://www.sustainability.vic.gov.au/grants-funding-and-investment/invest-in-victorias-circular-economy/invest-in-materials-and-infrastructure/bioenergy-circular-economy-opportunities]
[42] Geoscience Australia. (2024). Australia's Energy Commodity Resources 2024 - Hydrogen. Retrieved from [https://www.ga.gov.au/aecr2024/hydrogen]
[43] Energy Networks Australia. (2025). The hidden cost of forced electrification in Victoria. Retrieved from [https://www.energynetworks.com.au/news/media-releases/the-hidden-cost-of-forced-electrification-in-victoria]
[44] AEMO. (2024) Victorian Annual Planning Report October 2024. Retrieved from [https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/vapr/2024/2024-victorian-annual-planning-report.pdf]

The Clear Choice for Victoria: A Comparative Analysis

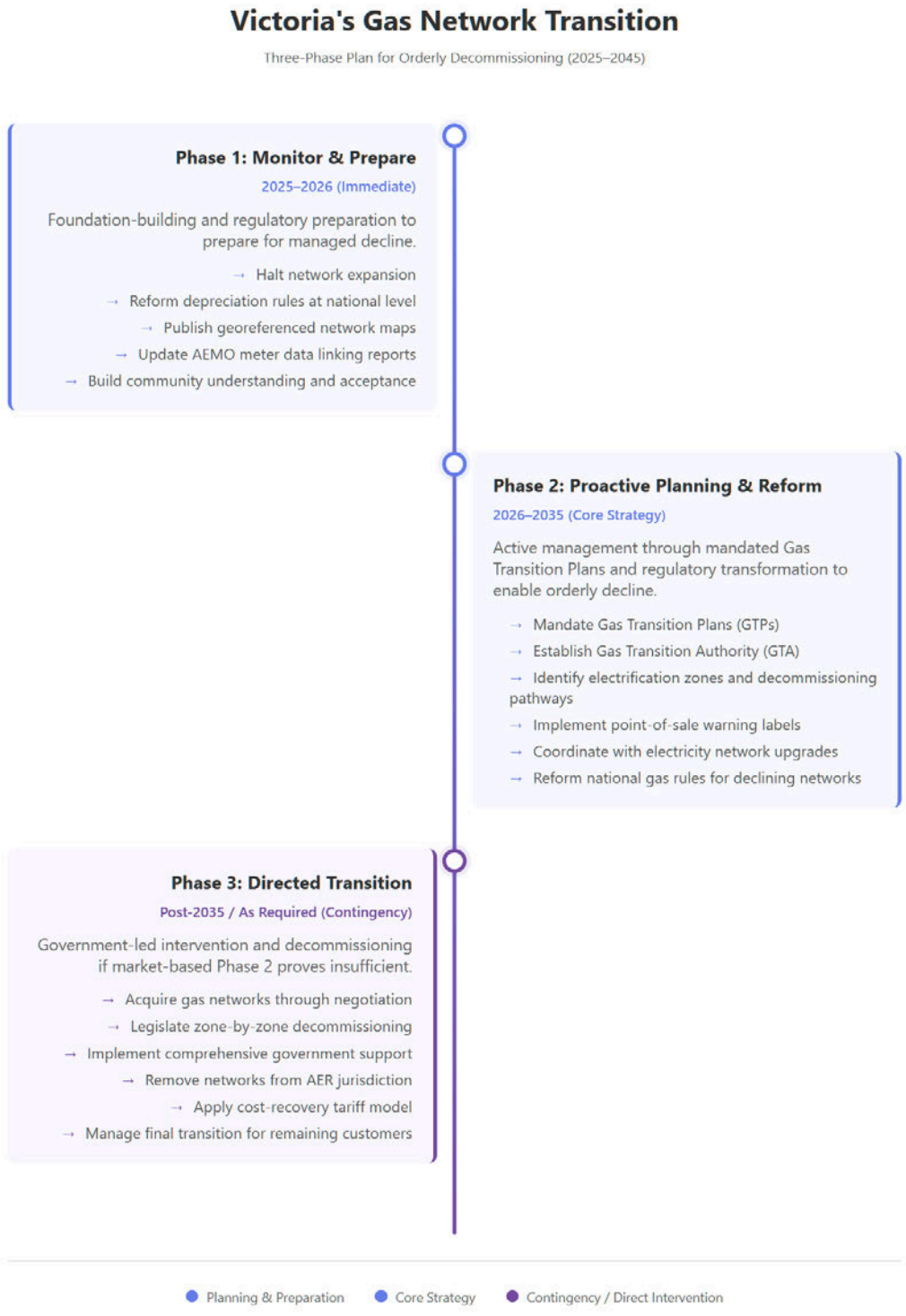
The committee is faced with two starkly different futures. The following table distills the complex arguments into a clear, memorable choice between a publicly managed, least-cost electrification pathway and an industry-proposed, high-cost "renewable gas" experiment.

Table 2: Competing Futures for Victorian Homes - A Comparative Analysis

Metric	VEFN's Managed Electrification Pathway	Industry's "Renewable Gas" Pathway
Household Bills	Permanently lower energy bills (>$1,300/yr savings). Shielded from volatile global gas prices.	Locked into a premium, niche fuel (hydrogen/biomethane). Exposed to high production costs.
Upfront Cost	Managed via existing rebates and staged transition. Avoids wasted investment in new gas appliances.	Requires replacement of ALL household gas appliances to be hydrogen-compatible, plus network upgrades.
Infrastructure	One-off investment in grid upgrades, managed by GTA/SEC. Decommissions a costly, aging liability.	Requires massive new investment in hydrogen/biomethane production *plus* ongoing maintenance of gas networks.
Regional Jobs	59,000 new, secure jobs in renewables, energy efficiency, and electrical trades via SEC.	Uncertain, based on unproven, centralised production facilities.
Public Health	Eliminates indoor pollution, reducing childhood asthma burden (12% link). Healthier homes.	Continues indoor combustion. Hydrogen combustion can still produce NOx pollutants.
Energy Security	Increased self-sufficiency based on Victoria's own renewable resources.	Reliant on a complex and undeveloped supply chain for "renewable gas".
Gov't Certainty	Aligns with existing government policy (*Gas Substitution Roadmap*). Provides a clear, manageable plan.	Creates policy confusion, delays climate targets, and risks investing in stranded assets.

Part 4: A Pragmatic Pathway: A Three-Phase Plan for Orderly Decommissioning

To avoid the chaotic outcomes guaranteed by the current framework, a proactive, government-led plan is essential. VEFN proposes a three-phase plan, the central pillar of which is the mandating of Gas Transition Plans (GTP) for all gas distribution businesses as part of their regulatory reviews.



Phase 1: Monitor and Prepare (Immediate Actions: 2025-2026)

This initial phase focuses on foundational analysis and "no regrets" regulatory changes to halt detrimental investment and prepare for a managed decline. These are common-sense actions that can be implemented quickly to stop the problem from getting worse, and are consistent with rule change requests submitted to national energy bodies by consumer groups.[1] Key actions include:

- **Halt Network Expansion:** Prohibit all new gas mains extensions.
- **Reform Depreciation Rules:** Advocate nationally for the AER to link accelerated depreciation to a fair cost-sharing framework.[45] Note that gas and electricity network and retailing legislation is at state level. So there is scope to add to or modify NEM level mechanisms. For example, Victoria has required retailers to participate in the Victorian Energy Upgrades scheme and has applied stronger consumer standards.
- **Increase Information Transparency:**
    - Compel network businesses to publish georeferenced maps of their entire reticulated network, for example through platforms like MapshareVic. This critical step enables identification of both strategic decommissioning pathways and segments most vulnerable to stranding. It will also empower communities and businesses to take action.
    - Ask AEMO to annually update their Meter Data Linking reports on residential & commercial energy use for both electricity and gas using their unique ability to cross match meter data.[46]
- **Build Community Licence:** Work collaboratively with local governments, Traditional Owner **(ToR f)** and other community groups to build public understanding and acceptance for the transition. Messaging should focus on shared, universal values such as creating healthier and safer homes for children, and on building confidence in options such as induction cooking and replacing old appliances, rather than on polarising political frames.[47]

Phase 2: Proactive Planning & Regulatory Reform (Core Strategy: 2026-2035)

This is the central phase of the plan, moving from preparation to active management.

Gas Transition Plans

The cornerstone of this phase is to **mandate Gas Transition Plans (GTPs)** for all gas distribution businesses as part of their regulatory reviews. These GTPs must be detailed, transparent, and publicly available, including:

- Georeferenced maps identifying potential "electrification zones" and

[45] AEMC. (2026). Consultation paper National Gas Rule Amendments 2026 (Gas networks in transition). Retrieved from [https://www.aemc.gov.au/sites/default/files/2025-09/Consultation%20paper%20-%20GRC0082%20-%20Gas%20networks%20in%20transition.pdf]

[46] AEMO. (2025). Gas-Electricity Meter Data Linking Project Report. Retrieved from [https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/gaselectricity-meter-data-linking-project/gas-electricity-meter-data-linking-project-report.pdf?la=en]

[47] Moreland City Council. (2021). Communications Message Guide for Households. Retrieved from [https://zerocarbonmerri-bek.org.au/wp-content/uploads/2021/11/Electrify-Everything-Communications-Message-Guide-for-Households.pdf]

decommissioning pathways.
- Long-term demand forecasts that are consistent with Victoria's legislated emissions reduction targets.
- A thorough analysis of non-network solutions (e.g., targeted electrification support) versus traditional network replacement expenditure.
- Explicit coordination plans with electricity network planning bodies such as the SEC to ensure a whole-of-system approach to managing the shift in energy load. AusNet have begun trials to explore the impact of electrification in residential networks.[48]

Mandating GTPs fundamentally redefines "prudence" in network investment. The current framework incentivizes networks to propose, and the AER to approve, capital expenditure on replacing assets—such as a 40-year-old pipe—as "prudent" to maintain the network. However, a GTP that must align with a 2045 end date would force the network to publicly show its decommissioning plan for that exact street or zone. If that zone is scheduled for decommissioning in 10 years, spending millions on a new pipe with a 50-year lifespan is demonstrably imprudent. This provides the regulator and government with the concrete evidence needed to reject such expenditure, saving consumers money and preventing the stranded asset problem from worsening. GTPs thus become a powerful tool to expose and resolve this "prudent investment" fallacy.

Gas Transition Authority

To oversee this work, the government should **establish a dedicated Victorian Gas Transition Authority (GTA)**. (See Part 6 for more details.) Concurrently, Victoria must champion national regulatory reform through the Australian Energy Market Commission (AEMC) to amend the National Gas Rules. These amendments should align criteria for capital expenditure, depreciation, and planning with the reality of a declining network model, empowering the AER to reject investments inconsistent with an orderly phase-out.[49]

A key early function of the Gas Transition Authority will be to establish **risk-sensitive "pruning" rules** for efficient, street-by-street and / or section decommissioning. Establishing these rules now, before large-scale work begins, is a pre-emptive strike against the massive cost overruns typical of large public works projects. Decommissioning a 34,000 km network is potentially a monumental undertaking. By learning from the ACT's technical reviews, which show that full excavation is often unnecessary and disproportionate to the risk, the state can avoid billions in future costs in pipe removal and repairs to roads.

The ACT are actively planning for phased decommissioning from 2035, with a government-commissioned technical review explicitly recommending decommissioning at a "network element / sectional level to improve efficiency and reduce cost".[50] This

[48] AusNet. (2024). AusNet trial to look at impact of electrification on vulnerable households. Retrieved from [https://www.ausnetservices.com.au/news/ausnet-trial-to-look-at-impact-of-electrification-on-vulnerable-households]

[49] AEMC. (2025). Consultation paper National Gas Rule Amendments 2026 (Gas networks in transition). Retrieved from [https://www.aemc.gov.au/sites/default/files/2025-09/Consultation%20paper%20-%20GRC0082%20-%20Gas%20networks%20in%20transition.pdf]

[50] Everyday Climate Choices. (2025). Gas connection decommissioning (abolishment) technical review. Retrieved from

demonstrates that "pruning the tree" is not a theory but a practical strategy being implemented by another Australian jurisdiction. To minimise costs, the ACT is also considering leaving individual service lines in place if a whole street is decommissioned and / or if the property does not change hands, practices Victoria should consider adopting.

Table 2: Proposed Decommissioning Principles (Learning from the ACT)

Principle	Rationale	Precedent / Example
Prioritise street-level or section-level over individual decommissioning	Orders of magnitude more cost-effective and less disruptive than a piecemeal, house-by-house approach.	The ACT Government's technical review explicitly recommends decommissioning at a "network element/sectional level (i.e., by street) to improve efficiency and reduce cost".[51]
Leave inert service lines in-situ where safe	Significantly reduces the cost and complexity of decommissioning by avoiding unnecessary excavation on private property.	Evoenergy in the ACT is developing disconnection services that differentiate between temporary and permanent abolishment, with safety assessments concluding that the cost of disconnecting all non-consuming premises is disproportional to the risk.
Coordinate with electricity network upgrades	Ensures that local electricity distribution infrastructure is ready to handle the increased load from electrification before gas is withdrawn.	Evoenergy, as a dual-fuel utility, is uniquely positioned to manage this coordination, providing a model for collaboration between Victoria's Gas Transition Authority and electricity distributors.[52]
Mandatory abolishment in defined zones	Once a critical mass of homes in a zone has been electrified, a mandatory disconnection date enhances program efficiency and provides certainty.	Recommended as a long-term strategy in the ACT's technical review to drive economic efficiency.

The ACT model also highlights a critical institutional challenge for Victoria. In the ACT, the dual-fuel utility Evoenergy operates both gas and electricity networks, allowing for internal

[https://www.climatechoices.act.gov.au/__data/assets/pdf_file/0012/2882793/gas-connection-decommissioning-abolishment-technical-review.pdf]

[51] Everyday Climate Choices. (2025). Gas connection decommissioning technical review. Retrieved from [https://www.climatechoices.act.gov.au/__data/assets/pdf_file/0012/2882793/gas-connection-decommissioning-abolishment-technical-review.pdf]

[52] Evoenergy. (2025). Gas network plan. Retrieved from [https://www.evoenergy.com.au/About-us/Gas-network/Gas-network-plan]

coordination of gas retirement and electricity grid upgrades. Victoria's fragmented market, with separate gas and electricity distributors, lacks this inherent coordination. This makes the establishment of a Gas Transition Authority even more critical, as it must replicate this essential coordination function to ensure local electricity infrastructure is ready *before* gas is withdrawn from an area.

The Clear Timeline Imperative: Protecting Consumers with a Declared End Date

The single most effective consumer protection measure the government can take is to announce a conservative, legislated end date for the reticulated residential gas network, aligned with the state's net-zero target of 2045.[53]

The primary risk for consumers today is unknowingly investing in "stranded assets"; a new gas ducted heater or hot water system that will become obsolete long before its typical 15-20 year lifespan is over. A declared end date provides the clear market signal necessary for rational decision making by households and appliance retailers. It also protects the government from future claims that it failed to adequately warn consumers of its own policy direction.

Point-of-Sale Warnings

Once Gas Transition Plans are required, mandatory point of sale warnings for grid connectable gas devices will be needed. These labels will inform consumers of two critical risks: first, the established health links of indoor gas combustion (see Part 5); and second, the financial risk of their new appliance becoming a stranded asset due to the legislated network phase-out. Labels are a powerful market-shaping tool that accelerates the transition at no cost to the budget.

Phase 3: Directed Transition (Contingency: Post-2035 or as required)

This phase is a necessary legislative backstop. If the proactive planning and regulatory reform in Phase 2 proves insufficient the government must have the authority to act decisively.[54] Actions would include:

- **Acquisition of the Networks:** The Gas Transition Authority, through negotiation, would acquire the gas networks and manage their retirement and decommissioning. See Part 6 for more details.
- **Legislated Decommissioning Schedule:** Establishing a binding, zone-by-zone schedule for the complete retirement of the remaining network by 2045.
- **Comprehensive Government Support:** Implementing a fully-funded government program to manage the final transition for all remaining customers, ensuring no one is left behind, with a particular focus on vulnerable households and renters.[55] [56]

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[53] DEECA. (2025). Climate Action Targets. Retrieved from [https://www.climatechange.vic.gov.au/climate-action-targets]
[54] Victorian Energy Future Network (VEFN). (2025). Victoria's Gas Endgame: Modelling and Analysis. Retrieved from [https://www.vefn.au/#h.bz14m2gdcyuy]
[55] Environment Victoria. (2025). Put people before profits to avoid a gas network 'death spiral'. Retrieved from [https://environmentvictoria.org.au/2025/08/06/put-people-before-profits-to-avoid-a-gas-network-death-spiral/]
[56] Environment Victoria. (2025). Putting gas companies in charge leaves communities unprepared. Retrieved from [https://environmentvictoria.org.au/2025/08/07/putting-gas-companies-in-charge-leaves-communities-unprepared]

This three-phase approach provides a logical, incremental, and politically tenable pathway. It allows the government to begin with the broadly supported principles of planning and transparency, building the evidence base and momentum needed to justify more direct intervention if and when it becomes necessary.

Part 5: Seizing the Opportunities of a Modern Energy System

The transition away from gas is a fundamental modernisation project that unlocks substantial and lasting economic, social, and health benefits for all Victorians.

Lower Bills for Households and Businesses

The most immediate and tangible benefit of the transition is significant and permanent relief from rising energy costs.

Efficient electric appliances, powered by an increasingly renewable grid, are far cheaper to run than their gas counterparts.[57]

- **Household Savings:** Analysis by IEEFA demonstrates the scale of these savings. An existing Victorian home that replaces its end-of-life gas appliances with efficient electric alternatives can save over $1,300 per year on energy bills. Statewide, the net benefits are measured in the billions of dollars over the next decade.[58]

  AEMO has compiled a major report[59] looking at the gas and electricity consumption of over 3 million homes which states:
  "*The analysis reveals a substantial reduction in household energy consumption for homes with electric heating and hot water compared to gas-heated counterparts:*
    - *Stand-alone houses in Melbourne and Geelong with electric heating, electric hot water and rooftop solar were found to use approximately 54 gigajoules (GJ) less gas and import just 0.1 megawatt hour (MWh) more electricity from the grid per year compared to houses with gas heating, gas hot water and no solar (as well as exporting 3.8 MWh back to the grid).*
      - *When combined with other energy performance measures, the reduction in gas use can be even more significant for older homes, with houses constructed prior to 2005 with gas heating and hot water typically consuming around 30% more gas than new houses with gas heating and hot water.*"

  This highlights the opportunity of modernisation. Converting from the under-recognised low efficiency of gas central heating systems to high efficiency electric options, combined with the adoption of rooftop solar / batteries, and improving higher efficiency of renovated and new homes, enables more comfortable homes for all Victorians with lower energy use at much lower cost.

- **Business Savings:** For commercial and industrial users, electrification offers a pathway to lower operating costs and to reduce exposure to volatile international gas prices.

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[57] Sustainability Victoria. (2025). Electrify your home. Retrieved from [https://www.sustainability.vic.gov.au/energy-efficiency-and-reducing-emissions/building-or-renovating/build-for-energy-efficiency/electrify-your-home]

[58] IEEFA. (2025). Electrification regulations to benefit Victorians, but no time for delays. Retrieved from [https://ieefa.org/articles/electrification-regulations-benefit-victorians-no-time-delays]

[59] AEMO. (2025). Gas-Electricity Meter Data Linking Project Report. Retrieved from [https://www.aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/gaselectricity-meter-data-linking-project/gas-electricity-meter-data-linking-project-report.pdf?la=en]

Case studies, such as the feasibility study undertaken at Saputo's dairy processing site in Kiewa (north-east Victoria), show that electrification can significantly reduce gas use and deliver substantial annual energy cost savings.[60]

The Australian Alliance for Energy Productivity (A2EP) provides excellent support for businesses including Manufacturing, Agriculture and Freight Transport.[61] Feedback from their work and the AEMO Data Linking Project indicate that shifts from industrial gas and traditional electric technologies could require smaller increases in electricity consumption than most expect.

- **Government Support:** These savings are made more accessible through a range of government programs that reduce the upfront cost of new appliances, including rebates for hot water systems through the Solar Homes Program and discounts on a range of upgrades via the Victorian Energy Upgrades (VEU) program.[62]

An Engine for Regional Jobs and Investment

In considering **opportunities for employment in the decommissioning sector (ToR e)**, it is essential to adopt a forward-looking definition. The transition away from gas is not simply about dismantling old infrastructure; it is about building its replacement. Far from threatening regional Victoria, the energy transition is a once-in-a-generation opportunity to drive investment, create jobs, and secure long-term prosperity across the state.

- **Massive Job Creation:** The revival of the State Electricity Commission (SEC) is a cornerstone of this opportunity. The SEC's mandate to accelerate the transition is expected to help create 59,000 jobs, including 6,000 apprenticeships and traineeships.[63] This represents a new wave of skilled, secure employment for Victorians.
- **Targeted Regional Investment:** A significant portion of these jobs and the associated investment will be located in regional Victoria. The government has identified six Renewable Energy Zones (REZs) across Gippsland, the South West, Western Victoria, the Central Highlands, the North West, and Central North, which will become hubs for new wind, solar, and storage projects.[64]

- **A Just Transition for Workers:** A proactive plan must be developed in partnership with unions and industry to support skills development and redeployment for the existing gas workforce. The skills of gasfitters, plumbers, and technicians are highly

[60] DEECA. (2025). Saputo is on the journey to electrifying. Retrieved from [https://www.energy.vic.gov.au/victorian-energy-upgrades/businesses/large-businesses-energy-case-studies/saputo-journey-electrifying]
[61] A2EP. (2025). Our Work. Retrieved from [https://www.a2ep.org.au/our-work]
[62] Energy Victoria. (2025). Victorian Energy Upgrades for homes. Retrieved from [https://www.energy.vic.gov.au/victorian-energy-upgrades/homes]
[63] Vic.gov.au. (2023). Supporting clean economy ambitions/sec-government-owned-renewables. Retrieved from [https://www.vic.gov.au/victorian-skills-plan-2023-publication/supporting-clean-economy-ambitions/sec-government-owned-renewables#:~:text=The%20Victorian%20Government%20is%20bringing,and%20help%20create%20592%2C000%20jobs.]
[64] Energy Victoria. (2025). Victorian Renewable energy zones. Retrieved from [https://www.energy.vic.gov.au/renewable-energy/vicgrid/renewable-energy-zones]

transferable and will be in high demand in the growing electrification and energy efficiency sectors.[65]

Eliminating Fugitive Emissions and Enhancing Public Safety

The Committee's inquiry is rightly concerned with identifying and mitigating leaked greenhouse gases from existing and retired infrastructure **(ToR g, h)**. While much public focus has been on offshore facilities, the 34,000 km low-pressure distribution network represents a diffuse and persistent source of fugitive methane emissions.

Work done[66] for the Victorian Essential Services Commission and the gas distribution companies by Asset Integrity Australasia show that about 2% of all the fossil gas entering the residential networks leaks to the atmosphere as "fugitive emissions" before reaching the meters of end customers.

While network operators undertake leak detection and repair programs, these are reactive measures that can only manage, not eliminate, the problem. The only permanent action the Government can take to eliminate this source of climate-damaging pollution and the associated public safety risks is the planned and orderly retirement of the network itself.

The VEFN-proposed transition plan, centered on staged, geographical decommissioning, represents the most effective possible response to this Term of Reference for the entire distribution system. Every street and suburb that is fully electrified and has its gas infrastructure purged and disconnected represents a permanent end to fugitive methane emissions from that source. This provides a profound environmental and safety co-benefit that powerfully complements the economic, cost-of-living, and indoor health benefits of electrification, creating a compelling case for a decisive, government-led transition.

Healthier Homes and Empowered Consumers

The removal of gas combustion from homes is a significant public health initiative. A landmark Australian study published in the *Medical Journal of Australia* estimated that **12% of the total burden of childhood asthma is attributable to gas stoves**.[67] Gas combustion releases pollutants like nitrogen dioxide (NO_2) and formaldehyde, known respiratory irritants that can trigger asthma attacks and cause inflammation in the airways.[68] The Royal Australian College of General Practitioners (RACGP) has detailed these risks, alongside the danger of carbon monoxide (CO) poisoning from faulty or poorly ventilated appliances, which can cause symptoms from headaches to coma and death.[69] Ongoing

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[65] Energy Victoria. (2025). Victorian Energy Jobs Plan. Retrieved from [https://www.energy.vic.gov.au/renewable-energy/victorian-energy-jobs-plan]
[66] John Godfrey. (2022). Submission to the Essential Services Commission Unaccounted for Gas Benchmarks Review 2022. Retrieved from [https://www.esc.vic.gov.au/sites/default/files/documents/John%20Godfrey%20-%20Redacted.pdf]
[67] Medical Journal of Australia. (2018). Damp housing, gas stoves, and the burden of childhood asthma in Australia. Retrieved from [https://www.mja.com.au/journal/2018/208/7/damp-housing-gas-stoves-and-burden-childhood-asthma-australia]
[68] National Asthma Council Australia. (2024.). Gas stoves and asthma in children. Retrieved from [https://www.nationalasthma.org.au/living-with-asthma/resources/patients-carers/factsheets/gas-stoves-and-asthma-in-children]
[69] RACGP. (2022). Health risks from indoor gas appliances. Retrieved from [https://www1.racgp.org.au/ajgp/2022/december/health-risks-from-indoor-gas-appliances]

efforts to reduce air leakage under the National Construction Code and incentives from VEU mean that reducing indoor emissions from gas appliances is increasing in importance.

Table 3: Health Impacts of Indoor Gas Appliances & Justification for Warning Labels

Pollutant / Risk	Key Health Impact	Supporting Evidence / Statistic
Nitrogen Dioxide (NO_2)	Respiratory irritant; associated with the development and exacerbation of asthma.	Gas stove use is linked to 12% of the childhood asthma burden in Australia.[70] The RACGP notes a meta-analysis showing a 1.42 odds ratio for current asthma in children exposed to gas cooking.[71]
Carbon Monoxide (CO)	Toxic gas that displaces oxygen in the blood, leading to tissue damage. Symptoms range from headaches and nausea to coma and death.	A key risk from faulty, poorly installed, or poorly ventilated gas appliances. The RACGP highlights the difficulty of diagnosis and the occurrence of avoidable deaths.
Benzene	Known human carcinogen.	US-based research has identified that gas stoves can emit benzene, increasing cancer risk, especially for children.[72]
Stranded Asset Risk	Financial risk to households purchasing an appliance with a 15-20 year lifespan for a network with a limited future.	Victorian Government policy mandates a transition away from gas to meet a 2045 net-zero target.[73]

[70] Medical Journal of Australia. (2018). Damp housing, gas stoves, and the burden of childhood asthma in Australia. Retrieved from [https://www.mja.com.au/journal/2018/208/7/damp-housing-gas-stoves-and-burden-childhood-asthma-australia]
[71] RACGP. (2022). Health risks from indoor gas appliances. Retrieved from [https://www1.racgp.org.au/ajgp/2022/december/health-risks-from-indoor-gas-appliances]
[72] Journal of Hazardous Materials. (2025). Exposure and health risks of benzene from combustion by gas stoves: A modelling approach in U.S. homes. Retrieved from [https://www.sciencedirect.com/science/article/pii/S0304389425009021]
[73] DEECA. (2025). Climate Action Targets. Retrieved from [https://www.climatechange.vic.gov.au/climate-action-targets]

Given these established risks, VEFN strongly recommends that the government amend consumer safety regulations to **mandate clear warning labels on all new gas appliances**.

These labels would serve a dual purpose:

1. **Health Warning:** Informing consumers of the direct health impacts of indoor gas combustion, particularly the link to childhood asthma.

2. **Transition Warning:** A clear statement that Victorian legislation requires net-zero emissions by 2045 and that the gas network is being phased out, warning them of the potential for their new appliance to become a stranded asset.

This is not a radical proposal. The state of Colorado has already legislated mandatory health warning labels for gas stoves, providing a clear policy precedent.[74] In Australia, the Australian Consumer Law, enforced by the ACCC and state regulators, provides a clear framework for implementing mandatory standards and warnings to ensure product safety and empower consumers with the information they need to make safe and financially sound decisions.[75]

[74] Colorado General Assembly. (2025). Labeling Gas-Fueled Stoves. Retrieved from [https://leg.colorado.gov/bills/hb25-1161]
[75] Standards Australia. (2025). Product safety through standards and regulatory compliance. Retrieved from [https://cdn.prod.website-files.com/641b85d1ba8e6f8425e1960c/68300d4f9c67928069ddd4f8_Product%20Safety%20Report_May_2025.pdf]

Part 6: The Endgame: A Fair Resolution for a State-Led Transition

National energy bodies cannot resolve the fundamental questions of ownership and the allocation of stranded asset costs that arise directly from Victorian Government policy. This brings into focus the Committee's inquiry into ensuring **companies provide sufficient provisions to cover decommissioning costs (ToR d)**. This is a matter of sovereign risk that falls squarely to the Victorian Parliament.

The Valuation Paradox: A Sovereign Victorian Responsibility

Any legislated pathway must confront a fundamental conflict: how to determine a fair value for an asset whose future earnings have been deprecated by climate change, technology / efficiency improvements and government policy. This "Valuation Paradox" presents two opposing and equally untenable starting points:

- **The Regulated Asset Base (RAB):** This is the backward-looking book value of the networks, currently over $5 billion.[76] For the state to compensate shareholders for this full amount would mean taxpayers pay the complete historical cost of an asset that government policy has rendered obsolete.
- **A Forward-Looking Valuation:** This valuation would be based on future discounted cash flows. As government policy is designed to reduce these cash flows to near-zero, this approach would result in a valuation approaching nil. This would be viewed by investors as expropriation, creating significant sovereign risk and damaging Victoria's reputation as a safe place for investment.

Neither extreme is fair or politically tenable. A pragmatic framework is needed to navigate a path between them.

A 'Shared Responsibility' Valuation Model

VEFN proposes a framework based on the principle of shared responsibility. A fair valuation should start with the existing RAB and apply a significant **"Policy Transition Adjustment"**. This adjustment is an economically and ethically justified rebalancing that acknowledges three realities:

1. **Sovereign Policy Impact**: The government's sovereign right to set climate and energy policy has fundamentally altered the value of the investment.
   The valuation must use realistic projections of customer disconnections and declining gas volumes consistent with the value of electrification and the mitigation of climate change impacts.

2. **Decommissioning Liability**: The negotiation must be reframed. The question is not "how much is the state paying for the network?" but "how much should the current

[76] Energy Consumers Australia. (2025). Gas Distribution Network Rule Change Requests. Retrieved from [https://www.aemc.gov.au/media/103465]

owners contribute to the future clean-up cost before transferring this massive liability to public hands?"

The New Zealand 2021 legislation[77] ensuring fossil fuel companies bear decommissioning liability provides a key international precedent.

3. **History of Supernormal Profits:** As detailed in Part 2, the existing regulatory compact has delivered billions in excess profits to shareholders. It is fair and equitable for the beneficiaries of this generous system to share in the costs of its policy-driven conclusion. Network operators have been guaranteed a rate of return on investment because they are regulated monopolies, yet they have received higher returns - the super profits identified by IEEFA.

Equitable Funding for a Public Good

The remaining costs of acquiring and decommissioning the network are a public cost of achieving a societal climate goal. As all Victorians will benefit from the state meeting its climate targets, these costs should be borne by the broadest possible base. Funding this transition through regressive levies on a shrinking pool of remaining gas consumers would be profoundly unfair, punishing the low-income and vulnerable households who are least able to transition.[78]

One possible financing mechanism would be for the State of Victoria to issue long-term government bonds, which could be marketed as "Victorian Energy Transition Bonds" to attract ESG-focused investors. This leverages the state's strong credit rating to secure capital at the lowest possible cost. The debt would be serviced over decades from the state's consolidated revenue, spreading the cost across generations who will benefit from the climate action. A portion of this capital should be allocated to a dedicated, ring-fenced "Gas Network Decommissioning Fund" to ensure that funds are provisioned today to meet the massive long-term liabilities associated with making the pipeline network safe as it is decommissioned section by section.

Another mechanism would be to levy all energy consumers, whether gas or electricity users. There is some precedent for this in the ACT.[79]

An Institutional Framework for Managed Decline

The re-established State Electricity Commission (SEC) is constitutionally prohibited from owning, operating, or investing in fossil fuel facilities. This creates a policy gap: a public body is empowered to build the new energy system, but no public body is empowered to responsibly dismantle the old one.

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[77] New Zealand Government. (2021). Crown Minerals (Decommissioning and Other Matters) Amendment Bill. Retrieved from [https://www.legislation.govt.nz/bill/government/2021/0047/8.0/d7066895e2.html]
[78] Grattan Institute. (2025). The energy transition could make Australia more unequal. Retrieved from [https://grattan.edu.au/news/the-energy-transition-could-make-australia-more-unequal/]
[79] ACT Revenue Office. (2025). Energy industry levy. Retrieved from [https://www.revenue.act.gov.au/levies/energy-industry-levy]

The government has a clear policy to phase out gas, but the only entities currently legally able to manage the physical infrastructure of that phase-out are the private owners, who are operating under a failing regulatory framework with incentives that are misaligned with the public interest. The result is an imbalanced transition. The "build" side is being driven by a strategic public body, while the "decline" side is being left to a potentially chaotic, inequitable, and unmanaged process. It is recommended that the Inquiry endorse the creation of a **State Gas Transition Authority (GTA)**.

The establishment of the Gas Transition Authority would realign ownership with the public interest, resolve the inherent conflicts of interest faced by private owners, and provide the state with the direct control needed to execute a complex, multi-decade public works project. International precedent from the United Kingdom[80] provides a practical blueprint for implementation.

The Gas Transition Authority's mandate would be to act as the state's agent in eventually acquiring the networks through negotiation, overseeing their safe and efficient operation during their managed decline, and managing the long-term decommissioning project. Collaboration between the GTA and the SEC will be essential to coordinate the retirement of gas infrastructure with the necessary upgrades to the electricity network. A plan led by the GTA would ensure grid readiness for decommissioning, zone by zone.

Upon acquisition of the gas networks, the GTA's operations would be removed from the jurisdiction of the Australian Energy Regulator's (AER) National Gas Rules. The rate-of-return framework, with its inherent growth incentives and complex mechanisms for determining revenue, is entirely incompatible with the GTA's mandate of managed decline.

In its place, a new, state-based regulatory compact would be established, enshrined in the Gas Transition Authority's enabling legislation. This new framework would be designed around a completely different set of objectives:

- **Cost-Efficiency in Decommissioning:** The framework would incentivise the GTA to manage the decline and decommissioning process at the lowest possible long-term cost to the public, while maintaining safety and environmental standards.
- **Public Safety:** Protect the safety and integrity of the network for as long as any part of it remains operational.
- **Consumer Equity:** The framework would be explicitly designed to protect remaining consumers from the price shocks of the "death spiral."
- **Environment Protection:** Priority would be given to eliminating emissions (including fugitive) as quickly as practicable.

Under this new compact, the pricing structure for remaining gas customers would be fundamentally reformed. Instead of being set to deliver a commercial return on a regulated asset base, tariffs would be structured to cover only the efficient operational and maintenance costs of the shrinking network, plus a carefully managed contribution to a decommissioning provision fund. This "cost-recovery" model breaks the link between asset

[80] The Guardian. (2024). UK government to buy electricity system operator from National Grid for £630m. https://www.theguardian.com/business/2024/sep/13/uk-government-to-buy-electricity-system-operator-from-national-grid-for-630m

value and price, allowing the GTA to manage the decline without imposing punitive costs on those last to leave the network.

This represents a paradigm shift from viewing the network as a commercial service that must generate a profit, to viewing its decommissioning as a public works project that must be managed efficiently on behalf of the taxpayer and community.

A Just Partnership with Traditional Owners

The decommissioning of 34,000 km of pipelines must be made in genuine partnership with Victoria's First Peoples, respecting their enduring connection to Country. In line with the Committee's focus on **Traditional Owner acknowledgement, consultation, and employment (ToR f)**, the enabling legislation for the GTA must include a specific mandate for co-design, consent, cultural heritage protection, and economic opportunity with Traditional Owners.

Part 7: A National Blueprint: Victoria's Leadership Opportunity

The structural challenges confronting Victoria's gas network are not unique. While the ACT has been decisive with its phase-out, its small scale makes its model difficult to replicate. Other states like South Australia and New South Wales are pursuing different or less-developed strategies.

Victoria stands at a unique juncture. As the nation's largest residential gas market and with a clear government policy directive, it is the essential laboratory for developing a comprehensive, scalable, and equitable transition framework. By adopting this plan, Victoria can create a best-practice blueprint that establishes a clear and defensible pathway for other states to follow as they confront the same unavoidable challenge.

- **Australian Capital Territory (ACT):** The ACT has been the most decisive, with a legislated ban on new gas connections from December 2023 and a clear target to phase out gas entirely by 2045.[81] The ACT Government and the local network operator, Evoenergy, are actively planning for this transition. However, the ACT's small scale and unique governance structure make its top-down model difficult to replicate directly in larger states.

- **South Australia:** South Australia's strategy has a strong focus on decarbonising the gas network through "renewable gas" rather than retiring it. The network operator is actively pursuing this through its Hydrogen Park South Australia (HyP SA) project.[82] While green hydrogen has a role in a renewable economy, a blend of 5% hydrogen with fossil gas is unlikely to present a clear, cost-effective, or timely pathway for the full decarbonisation of the residential sector.[83]

- **New South Wales:** As a large gas market, NSW faces challenges similar to Victoria's. However, its policy response is in a much earlier stage. The NSW Government has committed to developing a *Gas Decarbonisation Roadmap* but has not yet established a clear policy pathway for network retirement.[84]

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[81] ACT Government. (2021). Switching from Gas - Climate Choices. Retrieved from [https://www.climatechoices.act.gov.au/energy/switching-from-gas]
[82] Energy and Mining, South Australia. (2024). Australian Gas Networks - HypSA. Retrieved from [https://www.energymining.sa.gov.au/industry/hydrogen-and-renewable-energy/hydrogen-in-south-australia/hydrogen-projects-in-south-australia/australian-gas-networks-hypsa]
[83] Michael Liebreich. (2023). Hydrogen Ladder Version 5.0. Retrieved from [https://mliebreich.substack.com/p/hydrogen-ladder-version-50]
[84] NSW Decarbonisation Innovation Hub. (2025). NSW Decarbonisation Innovation Hub. Retrieved from [https://www.decarbhub.au]

Table 4: National Approaches to the Gas Distribution Network Transition

Jurisdiction	Key Policy / Strategy	Status of New Connections	Approach to Network Retirement
Victoria	*Gas Substitution Roadmap*	Banned for new homes from Jan 2024	VEFN proposes staged, government-led retirement
ACT	Legislated 2045 phase-out	Banned from Dec 2023	Mandated, planned phase-out underway
South Australia	Net Zero Strategy; Hydrogen Action Plan	No ban; focus on renewable gas blending	Focus on network conversion to renewable gas (hydrogen)
New South Wales	*Gas Decarbonisation Roadmap* (in development)	Under review; some councils proposing bans[85]	Not yet determined; modelling underway

[85] City of Sydney. (2025). City of Sydney Electrification of New Developments. Retrieved from [https://meetings.cityofsydney.nsw.gov.au/documents/s95597/Attachment%20A%20-%20Engagement%20Report%20-%20Discussion%20Paper%20-%20Electrification%20of%20New%20Development.pdf]

Consolidated Recommendations

VEFN urges the Legislative Council to recommend that the Victorian Government adopt the following recommendations to ensure an orderly, equitable, and efficient transition away from the residential gas distribution network.

For the Victorian Government:

Tier 1: Immediate Actions (The Next 12 Months)

- **Halt Network Expansion** Prohibit all new gas mains extensions to prevent further investment in stranded assets. *(Addresses ToR a, d)*
- **Reform Depreciation Rules:** Advocate at a national level to link any approval of accelerated depreciation to a transparent asset redundancy assessment and a fair cost-sharing framework. (Addresses ToR c, d)
- **Increase Information Transparency:** Compel network businesses to publish georeferenced maps of their networks and ask AEMO to annually update its Meter Data Linking reports. *(Addresses ToR a, g)*
- **Build Community Licence:** Work with local governments, Traditional Owners and community groups to build public understanding and acceptance for the transition. *(Addresses ToR b, f)*

Tier 2: Medium-Term Governance (The Next 1-3 Years)

- **Mandate Gas Transition Plans:** Legislate to require five-year, publicly available Gas Transition Plans from all network businesses, aligned with state climate targets. *(Addresses ToR a, c, d, g, h)*
- **Establish Gas Transition Authority (GTA):** Draft and pass enabling legislation to establish a State Gas Transition Authority (GTA) with the mandate to oversee GTPs and manage the orderly decommissioning of the gas networks, including through eventual acquisition. *(Addresses ToR c, d, e)*
- **Set a Legislated End Date:** Legislate a clear, conservative end date for the reticulated residential gas network, such as 2045, to provide market certainty. *(Addresses ToR a, b, d)*

For National Energy Bodies:

- **Australian Energy Market Commission (AEMC):** Urgently amend the National Gas Rules to align investment rules, obligations, and incentive schemes with a declining network model and national emissions reduction targets. *(Addresses ToR c)*
- **Australian Energy Regulator (AER):** Use existing regulatory flexibility to approve equitable tariff structures that remove financial barriers to electrification and protect remaining captive consumers from excessive price rises. *(Addresses ToR c, d)*
- **Australian Energy Market Operator (AEMO):** Operationalise advanced data and reporting capabilities, including geospatial heat maps of gas consumption and vulnerable consumer mapping, to support a well-managed transition. *(Addresses ToR a, b, g)*

End of submission.