



Infrastructure Victoria

Via on-line submission

Victoria's draft 30-year infrastructure strategy – GAMAA Submission

Thank you for the opportunity to comment on Victoria's draft 30-year Infrastructure Strategy (the Strategy), and for the opportunity to participate in the consultation session on 26 March 2025. The Gas Appliance Manufacturer's Association Australia (GAMAA) appreciates the openness and willingness to engage with end-users as well as infrastructure providers. In this regard GAMAA also commends the release of supporting studies by Jacobs and Aurora Energy.

Our comments specifically relate to the energy aspects of the Strategy (notably pages 99 to 115) although they also reflect a broader concern over the degree to which Infrastructure Victoria is providing genuinely original, independent and rigorous, evidence-based advice consistent with its role and mandate to the Victorian Government.

About GAMAA

The Gas Appliance Manufacturer's Association Australia (GAMAA) was formed in 1957 and is the peak industry body representing the interests of Australian manufacturers and suppliers of domestic and commercial gas heating, hot water and cooking appliances and components.

Our 37 member companies employ a combined total of 4,000 workers in Australia. The vast majority of the 18 million domestic gas products enjoyed by Australian consumers are supplied by GAMAA members, with significant local design and manufacturing content.

Our primary activity is to work with our members, government agencies, political representatives and other industry stakeholders to develop and implement workable, equitable and practical initiatives, standards and regulations that result in better economic, social and environmental outcomes and address the unique role of gas domestic and commercial gas products in Australian homes, businesses and buildings in the economy wide transition to net zero.

More information and contact information on GAMAA is available at <https://gamaa.asn.au/>

The importance of getting it right on energy infrastructure

Energy infrastructure underpins society from a social, economic and environmental perspective. It is characterized by long-lived investments by households, businesses and governments, some of which may range from 7 to 15 years for appliances through to 30 to 50 (or longer) years for large scale generation, supply and transmission assets. It is notable that policy driven change in the Victorian energy sector stems directly from the government's aspirational 2035 climate goals which leaves only ten years for a significant step change in our energy and infrastructure mix.

This means that having the wrong settings for infrastructure investment decisions can have significant consequences that are hard to adjust, ranging from imposition of higher than necessary costs on consumers through to catastrophic failures in service delivery.

It is therefore important that policy goals set by the government and consumer expectations are met through efficient, effective and appropriate measures that minimise all costs and manage risk.

Infrastructure Victoria plays a critical role

GAMAA notes that the provision of original, independent and analytically rigorous advice is critical in both getting the settings right as well as providing investors and end users with the confidence that there is a soundly formed balance between broader policy objectives and the critical goals of ensuring a secure, reliable and affordable energy supply.

This requires an honest assessment of risks, opportunities and costs through rigorous evidence-based advice. Indeed, this is the core role of Infrastructure Victoria and the driving rationale for its establishment.

The draft Strategy fails to present a coherent plan for service delivery or to manage observable risks

In GAMAA's view the draft Strategy, at least in relation to energy infrastructure, falls short of this critical test.

Overall, the draft Strategy endorses a highly interventionist approach to energy supply, infrastructure provision and end use applications but fails to support this with a credible and coherent risk-based strategy. Too many critical issues are left unexamined with outcomes taken as an article of faith rather tested against market realities and, cost implications for consumers. In GAMAA's view the draft Strategy fails to provide adequate recommendations to support implementation and manage risks.

More specifically our concerns are as follows.

There is no critical evaluation of current and future infrastructure needs, the project pipeline for meeting those needs, or the costs of the overall strategy.

The strategy is largely written on a "first-principles" basis with no comprehensive picture provided of the costs and implementation pathway for meeting identified needs, or even what those specific needs might be, let alone credible alternatives. This is critical to providing a sense of urgency and scale of investment as well as the key areas in which priority action is required.

It is also essential in providing a critical reality check against energy policy goals, particularly given the short window of time in which critical investments must be made to meet the Government's identified 2035 targets, or to adjust if costs, markets factors or Government policy make these unachievable.

A number of proposed recommendations, such as electrification and renewable gas targets, have important cost implications for consumers but these have either been completely ignored or downplayed.

Many recommendations are superficial and together they do not provide a credible platform for managing rapidly emerging delivery risks.

A key criticism of this draft is that it largely ignores the "elephant in the room" and assumes that the clean energy transition will be fully delivered on time and budget even noting the challenges. It is evident to all objective observers (including Jacobs) that this is an increasingly unlikely outcome. Yet the Agency does not appear to have asked the critical question of "what happens if the plan does not go as intended"?

In many ways this is now the key question facing investors and end users.

In short – the strategy provides for no Plan B which, given the rapidly closing window for investments in complex energy infrastructure projects against the 2035 targets, is a glaring deficiency in what should be a robust and comprehensive strategy from an independent evidence-based agency. GAMAA notes that there is no recommendation relating to management of delivery risks other than to create a project coordinator (see discussion below). Relying on the next five yearly review of the infrastructure strategy inside a 10 year window is not a satisfactory nor robust approach.

Recommendations such as “Secure gas supplies to meet demand” are simply motherhood and add no real value. General recommendations such as these also fail to capture the key risks or detailed suggestions in the discussion with the very real risk that these will be lost in the government’s response.

In GAMAA’s view the recommendations should provide greater direction on what should and could be done to promote the necessary infrastructure outcomes to achieve goals.

The evidence base for the supporting discussion and recommendations is thin and biased and appears to have been chosen on the basis that it supports the Government narrative.

In most instances, references and quotations to support points are taken from department policy documents or advocacy reports by environmental NGO’s. Other than the Jacobs or Aurora reports, no attempt appears to have been made to incorporate other independent expert assessments or industry views which provide an important sense check on real-world costs and risks vs the government narrative. This has produced both an uncritical and unbalanced report of little real world value.

Claims are also made that several recommendations (#33 and #34) will deliver on multiple strategy objectives, notably in relation to the environment and human health, which are clearly unsubstantiated and constitute misleading exaggeration.

Finally, the strategy fails to resolve a number of policy and market tensions which, if unaddressed, will potentially undercut policy goals and/or result in significant cost imposts.

For example, references are made to the importance of competitively priced electricity and gas to support industry. However, the Strategy then endorses measures such as electrification and dismantling of the gas distribution network that will clearly result in higher electricity and gas prices and reduced system reliability for users. Importantly, no evidence is provided that support these proposals beyond reference to government policy statements nor has attempt been made to reconcile these goals in the recommendations. In GAMAA’s view of this tension could be addressed by a recommendation that actions should be based on cost-effectiveness.

Similarly, the strategy contains numerous seemingly contradictory statements on simultaneously developing and dismantling or limiting Victoria’s reticulated and renewable gas supply and infrastructure. It is unclear how the market or investment settings will deliver additional gas investment in the face of contradictory and confusing policy settings.

GAMAA also notes that on several issues such as limiting renewable gas to industry and power generation, and the current proposal by Government to mandate replacement of end-of-life gas appliances with electric appliances (including references to cook tops) the Strategy effectively pre-empts government decisions and assumes that these are a done deal, which as the Premier and Energy Minister have said as recently as December 2024, have not yet been taken.

Together these shortcomings result in a document that appears grounded in the government’s policy narrative rather than the reality of market conditions and tells the government what it wants to hear rather than what it needs to hear.

More specific comments on the proposed recommendations and supporting discussions are provided below.

Electricity related recommendations (#29 to #32)

These recommendations provide for important reforms to help address the growing delays to electricity generation and infrastructure projects. However, they provide no comfort in relation to the provision of stable dispatchable electricity to support variable renewable generation. While supporting the actions recommended, GAMAA notes that they provide only a partial and insufficient strategy for dealing with emerging risks to the security and reliability of electricity supply.

Almost all credible independent experts and business leaders have flagged concern over the achievability and cost of the 2035 renewable energy target given delays to renewable energy and

enabling infrastructure roll-out. Given the scheduled closure of the two remaining Victoria's coal-fired generation assets by 2028 and 2035 respectively, failure in this space poses enormous risks to energy security, reliability and cost for Victorian consumers.

The Draft Strategy correctly identifies a range of commercial factors (supply chain, cost, skills, financing) as well as delays due to approvals bottlenecks and planning deficiencies.

While the Strategy makes a range of sound recommendations to streamline approvals and improve planning and coordination (Rec 29 & 30), it also appears to suggest that fast-tracking reforms should curtail existing rights of local communities in the approvals process. This is concerning and almost certainly counterproductive.

The history of previously announced reform in these areas also suggests it would be unrealistic to expect any real near- or medium-term improvement in project delivery. Certainly, it will be the case that they do little to address commercial blockers and almost equally they will likely underdeliver on ambition. They will also take at least two years to operationalise before having a material impact.

While the proposal to improve coordination is sensible, it is unclear why there needs to be a Clean Energy Transition Coordinator given the establishment of the new Investment Coordinator General. This would seem to duplicate and establish competing bureaucratic mandates. GAMAA also notes that without directional powers to address bottlenecks any new coordination function is likely to simply revert to a role of observer rather than problem solver or worse still another bottleneck. Noting the importance of integrated energy planning and project delivery this function (and project approval streamlining) must also include gas and other non-renewable energy projects.

Given that these welcome proposals are unlikely to fully address the delay to project roll-out, this places emphasis on the adequacy of supply issue.

On this issue GAMAA believes that the draft Strategy is inadequate in its analysis and recommendations. With the scheduled closure of Victoria's coal generation plants now less than ten years away it strains credibility that the only proposed response to the critical issue of dispatchable backup power is to further investigate the development of long term (8 hour+) storage solutions when the Strategy itself notes these technologies are not commercially available anywhere in the world.

Is it really the case that Victoria's plan over the next decade is critically dependent on unproven technology options? Compounding this is the failure to provide any credible assessment or direction on the development of gas-fired power generation and the associated transmission and storage (beyond motherhood statements) despite this now being widely recognized as essential.

Rather confoundingly, and despite noting the challenges facing the transition roll-out, the Strategy recommends the acceleration of electrification even though it identifies this will double electricity demand. However no effort is made to assess how this can be delivered nor the potential impact on system security given the increasing strain on the current system without this additional demand. This issue is discussed further below.

GAMAA supports the streamlining and coordination functions (with the suggestions above) but does not believe they represent a panacea. The issue of adequacy of supply and provision of dispatchable reserve power should be the subject of deeper consideration with recommendations to undertake contingency planning and accelerate gas fired generation.

Gas recommendation #33 - Develop regional energy plans, guide transition from fossil gas and maintain reliable gas supply

The set of recommendations and the supporting discussion suffer from what can only be described as acute cognitive dissonance and incoherence in relation to the role of gas and delivery of supply and infrastructure. In GAMAA's view this reflects the uncritical acceptance of government anti-gas rhetoric, a lack of robust analysis and a failure to apply sound economic principles. This includes:

Gas supply – while the discussion notes Victorian gas supplies are declining it fails to place this in the context of being part of an interconnected east coast market and an examination of the infrastructure projects currently underway or in planning to deliver new supplies. This is an inexplicable omission for an Infrastructure Agency. A cursory examination of proposed projects suggest that options exist to deliver a more than adequate supply through to 2035 and beyond. This strategy should outline what is needed to bring in the new supply.

A failure to reconcile competing gas policy objectives – the draft Strategy effectively echoes government proposals affecting the gas market but does not provide a credible assessment of how they can be delivered while maintaining reliable and affordable supply. At various points the discussion notes the importance of the need to develop renewable gas options and promote GPG and supply to gas users more generally. Yet the Strategy also recommends the progressive dismantling of the distribution network that provides a shared supply to those sectors, without considering the costs or implications of dismantling.

The main reason offered appears to be emissions savings but again this does not stand up to scrutiny. The projected emissions saving from electrification are modest at around 2-3% of Victorian emissions and even these modest savings become questionable if the expected delays to the renewable energy roll-out are considered. Moreover, as the Strategy's discussion observed, the phasing-in of renewable gas offers both power generation and industrial customers with a longer-term decarbonisation option, yet rules-out this same opportunity for residential and commercial customers without any explanation. Domestic consumer sentiment regarding their existing right to choose energy sources (electricity and gas) is also completely ignored.

Furthermore, it is claimed that recommendation #33 will contribute towards the objectives that (a) Victorians are healthy and safe, (b) Victoria has a thriving natural environment and (c) Victoria is resilient to climate change. These claims are entirely unsubstantiated and fail to recognise the unfortunate reality that climate change is a global phenomenon and local measures in this regard will not in any meaningful way mitigate against the local effects of climate change. To suggest otherwise is misleading and at best naïve.

In summary, the draft Strategy fails to provide a convincing rationale to support dismantling what is a proven and reliable energy infrastructure network. It fails to consider the impact this might have on reliability and cost for end users and the ability to attract needed investment in GPG, industrial gas supply and development of renewable gas supplies. It provides no evidence on costs and key implementation risk. Instead, it appears to simply uncritically double down on government policy without providing any confidence that it can be delivered successfully.

GAMAA is of the strong view that this section should be completely reworked to include a comprehensive treatment of gas supply and market issues and to include clear and specific recommendations on fast tracking new gas supply and infrastructure as well as for the development of an integrated statewide gas plan to ensure energy security, affordability and consumer choice.

Gas Recommendation #34 - Speed up household energy efficiency and electrification

Our comments here focus on the implications of electrification for the delivery and cost of gas and electricity supplies as well as for consumers as they might be forced to convert their existing gas appliances to electric appliances at high cost.

GAMAA notes that no decision has been taken by government to require mandatory replacement of end-of-life gas appliances with electric appliances, nor a mandated phase out of gas to residential and commercial users. However, the supporting discussion takes these as defined policy goals without any material analysis to justify why such measures are required nor are the impacts of the recommended approach assessed, other than general (and untested) statements on emissions reduction and gas savings.

While the strategy notes that accelerated electrification would increase Victorian electricity demand by 50% by 2036 and double it by 2050, it provides no assessment of what this means for the electricity transmission and distribution network and prices.

Given the Strategy notes the strain that the current electricity system is facing and the critical delays of new generation and infrastructure to meet BAU demand growth, the rationale for then adding additional pressure to the system, including forcing consumers to pay for additional network build, simply cannot be justified.

For example, Professor Paul Simshauser and John Gilmore from Griffith University estimate that the additional network costs could be up to \$13.3 billion by 2035, helping to make Victoria's electricity prices the highest in Australia.¹

Energy Networks Australia also commissioned analysis by LEK Consulting for the Government's Building Electrification RIS which shows a similarly large cost of \$22 billion over 20 years. Both studies also show that forced electrification would place additional stress on an already struggling electricity network with a likely reduction in energy security and reliability.

While the draft Strategy promotes possible energy bill savings for households of around \$1200, it is vague on the direct capital costs to consumers, noting it could be high for some, particularly those on low incomes.

In responding to the recent Government's Building Electrification RIS, GAMAA commissioned independent analysis by Evaluate Consulting to test the claims of overall and individual net benefit from electrification.

It found that many of the benefits have been overstated, and numerous costs undervalued, rendering the results unreliable across all proposed options.

It also showed that the proposed bans would be likely to impose significant direct net costs on affected Victorian residential and commercial gas users of between \$2.9 to \$5.8 billion in net present value terms with benefit-cost ratios also well below breakeven.

Analysis of the distribution of costs also show that one million Victorian homeowners and renters are likely to be left worse off either financially or through reduced amenity, many substantially, unfairly and without choice, from upfront additional replacement and installation costs of up to \$30,000 for a house with gas ducted heating and hot water. These costs would not be recouped from running cost savings worth at best around \$545 per year or \$6,540 over the 12-year lifespan of the replacement electric appliances as assumed in the RIS. All Victorians would also face higher electricity and gas prices and higher costs and delays for key trades, notably electrical and building.

These numbers are based on independent real-world cost information obtained from appliance providers and installers and real-world appliance performance information recognised by Federal Government agencies (GEMS). All other RIS parameters such as future gas and electricity prices and CO₂ coefficients were retained to ensure the integrity of comparison between the RIS and Evaluate reports.

In terms of the other benefits cited by the draft Strategy, the relatively small amount of carbon savings achieved would come at an average cost from ranging from \$208 up to \$525 per tonne of CO₂ which is between 2.1 and 5.4 times the accepted AEMC benchmark of \$97 per tonne, as agreed in 2024 by all Federal and State Energy Ministers (including the Victorian Energy minister). Should the renewable energy roll-out suffer delay as appears likely then the emissions and energy bills savings will rapidly erode or even reverse and the real cost per tonne of CO₂ abated will increase even further.

Nor will the modest gas savings from electrification make a material difference to Victoria's short-, medium- or long-term gas supply challenges with independent market experts projecting savings to be offset by increased gas power generation (GPG) requirements to meet the additional peak electricity demand, at a lower efficiency than consuming the gas directly in the home once production, transmission and distribution losses are considered. The fact is that the same measures to bring in new gas supply will be needed regardless of whether the proposed electrification measure proceeds or not, and many of these are already underway.

Furthermore, and similar to claims for recommendation #33, it is claimed that recommendation #34 will contribute towards the objectives that (a) Victorians are healthy and safe, (b) Victoria has a thriving natural environment and (c) Victoria is resilient to climate change. These claims are

¹ Evaluate (2025) p23

entirely unsubstantiated and fail to recognise the unfortunate reality that climate change is a global phenomenon and local measures in this regard will not in any meaningful way mitigate against the local effects of climate change. To suggest otherwise is misleading and at best naïve.

In any case, GAMAA analysis shows that for some consumers electrification will provide an overall benefit. However, the consequential risks and costs for the electricity and gas supply system as well as unaffordable costs for many Victorian households suggest that approaches other than forcing en-masse electrification should be explored and the right of consumers to choose their energy sources should be recognised.

A much more cost-effective and equitable way forward for consumers would be to include high efficiency gas appliances as a replacement option for existing gas appliances, given these will save around \$200 in gas bills for little to no additional up-front cost to consumers and reduce emissions by 25%. It would also avoid flow-on negative impacts for manufacturers and energy markets.

In addition, information should be made available to consumers on 'real-life' installed costs, appliance efficiencies, and running costs/savings for gas and electrical appliances. This will enable them to make informed decisions on how to best manage their budgets and priorities and choose either gas or electric appliances suitable to their needs. Consideration should also be given to provide financial support for those households that cannot afford the additional upfront cost of appliance replacement.

This would complement efforts to deploy renewable gas and hydrogen into the gas network to drive additional medium-term decarbonisation for all gas users.

More detail on the Evaluate Report and GAMAA submission to the Victorian Government Building Electrification RIS can be found at <https://gamaa.asn.au/resources/>.

Best Regards

