

# **Future Gas Strategy: Consultation Paper**

13<sup>th</sup> November

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## About the Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is leading social justice law and policy centre. Established in 1982, we are an independent, non-profit organisation that works with people and communities who are marginalised and facing disadvantage.

PIAC builds a fairer, stronger society by helping to change laws, policies and practices that cause injustice and inequality. Our work combines:

- legal advice and representation, specialising in test cases and strategic casework;
- research, analysis and policy development; and
- advocacy for systems change and public interest outcomes.

## Energy and Water Consumers' Advocacy Program

The Energy and Water Consumers' Advocacy Program works for better regulatory and policy outcomes so people's needs are met by clean, resilient and efficient energy and water systems. We ensure consumer protections and assistance limit disadvantage, and people can make meaningful choices in effective markets without experiencing detriment if they cannot participate. PIAC receives input from a community-based reference group whose members include:

- Affiliated Residential Park Residents Association NSW;
- Anglicare;
- Combined Pensioners and Superannuants Association of NSW;
- Energy and Water Ombudsman NSW;
- Ethnic Communities Council NSW;
- Financial Counsellors Association of NSW;
- NSW Council of Social Service;
- Physical Disability Council of NSW;
- St Vincent de Paul Society of NSW;
- Salvation Army;
- Tenants Union NSW; and
- The Sydney Alliance.

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# 1. Introduction

PIAC welcomes the opportunity to respond to the Department of Industry, Science and Resources' (the department) Future of Gas Strategy (the strategy): consultation paper (the paper). PIAC welcomes recognition of a changed future for gas, and supports the intent for the future of gas to be based on robust evidence. Australia's energy future is one of efficient, renewable electrification, with targeted, merit-based utilisation of genuinely renewable alternative gases.

Methane is a dangerous fossil fuel with greater short-term emissions impact on climate change than carbon dioxide. Its continued domestic production, use and export harms our health, our future prosperity and is incompatible with our global climate responsibilities. The International Energy Agency's Pathway to Net Zero by 2050 is unequivocal.<sup>1</sup> There can be no new gas fields approved and existing methane production and use needs to be urgently phased out. There is no uncertainty over the future of methane gas. What is uncertain, and what this Strategy can contribute to resolving, is how and how quickly we can reduce and replace our gas use and efficiently electrify our energy system and economy. This strategy can help provide direction to ensure electrification is as rapid, efficient and equitable as possible. And it can provide solid principles to guide how and where renewable gas can be efficiently and sustainably employed and supplied.

The National Energy Objectives now include reduction of carbon emissions, meaning that Australian energy market bodies and regulators are required to consider the carbon and climate implications of energy projects.<sup>2</sup> This is the first step in the wider integration of climate policies and targets into all aspects of Government policy, standards and regulation. This strategy should be guided by and aligned with these ongoing processes and help to provide a consistent and coherent basis to ensure Australia meets its required emissions reduction targets in a manner that optimises benefits to Australian consumers, and is efficient, affordable and equitable.

Energy affordability for Australian households is increasingly compromised by residential gas use. Alternatives which are cheaper (now and over the long-term) are already known, available and increasingly accessible. Electrification, fuel-switching, demand flexibility, energy efficiency and broader emissions reduction actions mean that the future of gas in households must be one of rapid retreat. Without leadership and coordination from the federal government, the necessary and inevitable retreat from gas will result in poor outcomes for Australian consumers, particularly disadvantaged cohorts including low-income households, renters and people in rural and remote communities. The choice is not between electrification and something else, but electrification which is rapid, efficient and equitable, or electrification that is unmanaged, costly and leaves many of those already disadvantaged much worse off. To achieve the stated objectives of informing future supply, this strategy must play its role in supporting accelerated, efficient and equitable household electrification, and ensure domestic gas use and exports are rapidly phased out, with targets for material reduction by 2030, 2035 and 2040.

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<sup>1</sup> International Energy Agency 2021 [Net Zero by 2050: A Roadmap for the Global Energy Sector](#)

<sup>2</sup> National Electricity Law (Schedule to *National Electricity (South Australia) Act 1996*), s 7; National Gas Law (Schedule to *National Gas (South Australia) Act 2008*), s 23, National Energy Retail Law (Schedule to *National Energy Retail Law (South Australia) Act 2011*), s 13

PIAC recognises the role that methane gas has played in the Australian economy and the complexities that arise from its necessary retreat. These complexities, well managed, also present opportunities to pursue more efficient alternatives leaving the Australian community and economy healthier, more efficient, more sustainable, more resilient and more prosperous in the long term.

In the remainder of this submission, PIAC highlights the need for robust principles to underpin the gas strategy, identifies where this strategy can support more detailed transition planning, and focuses on how this strategy can help ensure the retreat of methane gas to enable rapid, efficient decarbonisation, and provide enduring benefits to the Australian people.

## 2. The need for a gas strategy

Australia needs to plan to affordably meet our future energy requirements while enabling rapid emissions reduction in line with our responsibilities to address climate change. Considering future gas demand and supply is an important part of this process. Any gas strategy must be a strategy for managing a rapid reduction in demand for and use of gas, both domestically and in export. Anything less is irresponsible in its impacts on the climate and contributes to unacceptable risks of stranded assets, and increased inequity and unaffordability in energy.

PIAC strongly recommends the strategy implements the objective of rapid gas retreat through the application of a robust merit order or approach to gas:

- First, maximise the removal or elimination of existing methane gas use.
- Then, maximise the reduction of any remaining gas use that cannot be removed or eliminated;
- Next, substitute the remaining methane gas usage with the most appropriate lowest emissions sustainable gas alternatives, employing gases according to their best, most efficient use.
- In securing the most efficient, sustainable and affordable supply of any replacement gases required to meet final demand – ensure that domestic needs are met in advance of (and in priority to) any international demand.
- Finally, offset the impact of any remaining emissions from unavoidable alternative gas usage timeframes to ensure zero-emissions outcomes (for instance, ensuring that any employment of biomethane is genuinely zero emissions on short term timeframes - not just ‘over the total life’).

Applying this merit order results in a strategy which can help guide the further development of plans to ‘remove’ demand in each aspect examined (households, business/industrial, and generation), identifying the specific plans that will be needed to implement each. These can be linked to or part-of the sector decarbonisation plans announced by the Climate Change and Energy Minister in July 2023.<sup>3</sup>

Australian households are concerned with what energy does, and other than wanting it to be renewable and affordable, are not concerned about what form it comes in and how it is provided. Therefore, decisions on the future of gas must be founded on our global climate responsibilities and consumer benefit – the affordability and efficiency of meeting energy needs – implemented

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<sup>3</sup> Minister Bowen, 2023 [Address to Clean Energy Council](#)

through a commitment that there is no reticulated gas in households by 2035. This should be the foundation of the strategy. From this, plans are then needed to provide the detail identifying the specific challenges in achieving this and how policy, regulation and incentives will respond.

PIAC is not recommending that this strategy provide the detailed plans itself – but that it should indicate where plans are needed and should be developed by the appropriate entities in consultation with stakeholders. For instance, identifying where a plan for residential gas transition and electrification is required.

This strategy is the appropriate place to develop key inputs on the future of gas in domestic energy. Alongside the Department of Climate Change, Energy, Environment and Water (DCCEEW), we recommend the department play a key role in determining the future of gas and not devolve planning and decision-making on the future of gas to the Integrated System Plan (ISP). The current review of the ISP being conducted by the DCCEEW is exploring ‘supercharging’ the ISP by incorporating the East Coast Gas Market into system and investment planning through the ISP.

Gas plays a small role in NEM electricity production and while important, this is not projected to substantially increase.<sup>4</sup> Other than electricity production, the east coast gas system should be planning for the retreat and retirement of gas, not for future investment as part of an integrated energy system. This Strategy is an opportunity to make that an explicit policy goal and contribute to the development of a plan for that future.

### **3. Developing a strategy guided by principles with a clear objective**

An effective gas retreat strategy should be centred on a clearly stated, overarching objective. This objective must be founded on evidenced-based climate response requirements (such as those underpinning the Paris Agreement) and serve as a coherent and consistent link between relevant climate, energy, housing, industry, economic and social support policies. This objective should be embedded in the governance structures overseeing the strategy and inform the development of targets which monitor its implementation. The four key objectives outlined in the paper can be drawn upon to devise the overarching objective.

Key principles are also needed to guide the development of the strategy, develop outcome targets, and inform what measures are required to implement the strategy and achieve its objective. These should be enduring principles that can be applied to a consideration of issues related to the gas strategy and inform decisions on how best to achieve the identified objective in a way that delivers optimal outcomes for all Australian households and communities.

PIAC recommends policies, targets and initiatives identified in the strategy be assessed against the contribution they can make to the objective of an efficient, equitable and affordable transition to a zero-carbon economy that delivers better outcomes for all Australian households and communities. In addition to embedding the merit-order approach in the strategy, PIAC considers

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<sup>4</sup> IEEFA 2023 [Gas's role in the transition](#)

the following principles should be key to shaping and informing the Strategy and its implementation:

- Optimise outcomes for all Australian households and communities. Outcomes relate to affordability of energy, equity of access to energy and housing, and health, wellbeing and resilience of communities.
- Respond to climate change based on the latest available evidence of what is required to maintain average increase in temperatures below 1.5 degrees, and no more than 2 degrees.
- National consistency and collaboration across jurisdictions is preferred, but best-practice should be prioritised over consistency.
- Promote equity of outcomes for all Australian households. Gas retreat and substitution should improve outcomes for all households and communities. But it should be aimed at addressing and reducing existing disadvantage or vulnerability in affordable access to clean energy and healthy housing that meets people's needs.
- Recognise that fuel or technology 'neutrality' is not compatible with the most efficient and rapid transition that maximises household (and economic) benefit. The optimum responses must be employed where they will have the most rapid, efficient, significant and likely benefit.
- Costs and risks are borne by those most capable of mitigating and managing them efficiently. Additionally, costs should be incurred by beneficiaries of those costs and consumers should not be unreasonably burdened with costs they cannot manage and do not benefit from.
- Prioritise acceleration of decarbonisation over optionality. This means that absolute energy and emissions reductions possible in near-term timeframes (before 2030-2035) should be prioritised. Responses must not rely on emissions offsets or potential future technologies and developments to deliver required outcomes.
- Competition, choice and effective markets are important tools to be employed where they optimise outcomes for Australian households. But this should only occur when they do not compromise outcomes for other Australian households.
- Beneficial systemic outcomes (such as efficient electrification) should not be contingent on the choice or actions of individual consumers or households. This is particularly important to ensure responses do not drive greater vulnerability.
- Fair, efficient, and affordable access to essential energy services should not be contingent upon consumer information, choice, or specific action or decisions.

## **4. Robust governance and targets**

A central aspect of the strategy, and a key role the Commonwealth Government can play, is the creation of a robust governance framework and a suite of outcome-based targets to drive and monitor progress against relevant objectives. The Governance framework should be capable of



linking meaningfully to climate policy, co-ordinating the required actions, taking responsibility for progressing the objectives and embedding key principles in decision making.

## 4.1 Governance

A robust framework of governance is required to effectively develop, co-ordinate, and consistently implement and monitor the progress of the strategy across the community and all levels of Government. The strategy needs to identify the responsible entities and where aspects of the strategy will be developed and implemented. This strategy need not be responsible for all aspects but must clearly indicate where responsibility lies and how consistency across different aspects of implementation will be guided, monitored and delivered.

## 4.2 Targets

The strategy must be driven by a comprehensive set of robust, long-term targets with transparent measures to implement, monitor and 'enforce' them. These targets should be informed by and linked to emissions reductions requirements and set both final objectives as well as interim pathways that can provide certainty. This certainty is crucial to enable:

- Australian households and businesses to start making informed investment and purchasing decisions, leveraging all available economic resources and developing efficient workforces and supply chains.
- State and Territory jurisdictions alignment of policies, programs, and investments supporting these targets and objectives.
- Commencement of future planning for gas networks to enable a managed, smooth and efficient transition for households.
- The realisation of immediate emissions reductions benefits through reduced energy use and increased utilisation of distributed renewable energy resources and demand management.

The targets embedded in this strategy should:

- Link to Australia's climate change mitigation responsibilities and goals of keeping to 1.5 degrees of warming (and no more than 2 degrees)
- Be derived from the objective of the strategy and relate to the key principles outlined.
- Involve long-term, end-point-targets which are legislated at the outset. These should also have interim targets to track performance and transition.
- Have comprehensive mechanisms for tracking, measuring and review by a single responsible entity empowered to undertake the role. This should include a range of designated progress markers and indicators set at the outset, with pre-determined review points and triggers for re-evaluation where not met.
- Include interim targets with material impact set at **2030 and 2035**, and end-point targets set at **2040** (linked to evidence-based climate change response requirements)

- Involve interim targets which prioritise people and communities experiencing disadvantage and vulnerability in responses (for instance, targets related to contribution to closing the gap for first nations communities and targets for upgrading social housing by 2030 and 2035).
- Incorporate clear communication across governments and their agencies of what action is required, how much and by when.

## 5. Demand

### 5.1 Domestic gas use

PIAC supports the department's recognition that reduction of domestic demand for methane gas is crucial to securing domestic supply to meet demand in the short-term. The strategy must explicitly seek to rapidly reduce and eliminate demand for methane gas, implementing the alternatives detailed further in chapter 7 of this submission.

Our global climate commitments and the urgency of the emissions reduction task must be the key driver of minimised short-term demand, as well as elimination of demand in the longer-term.

PIAC reiterates that the gas strategy requires leadership, coordination and strong, consistent policy signals from the Commonwealth government. The necessary rapid phase-out of domestic demand for gas must not be left to consumer 'choice', but should be driven by a facilitated, orderly change process.

In managing domestic demand for gas, PIAC recommends that the department devise a gas strategy based on a merit order that seeks:

- To first **remove or eliminate** the requirement for gas use;
- Second, where removal is not possible, **reduce and minimise** the amount of gas required;
- Third, **replace** methane with the most appropriate, efficient and lowest emission gas alternative;
- Finally, capture, use and offset any residual emissions to ensure zero or negative-net emissions.

PIAC highlights that CCS and offsets are unreliable, inefficient and expensive. Their role should be minimal and only considered as a final step to deal with residual emissions that cannot be eliminated, reduced or substituted by other means. This approach ensures not only that emissions reduction can be rapid and enduring, but also accomplished with the least cost and risk. PIAC contends that if a Remove > Reduce > Replace merit order of action is meaningfully adopted, there should be almost no situation in which capture, use or offsetting is required.

### 5.2 Gas exports

The strategy should include a plan to rapidly scale back and then cease Australia's exports of methane gas. Australia cannot support our trade partners with their decarbonisation efforts by continuing to export fossil fuels to them.

Australia's gas export industry is one of the largest contributors to domestic emissions through its energy requirements and fugitive emissions from production and transport. Emissions from gas

production, including fugitive emissions, account for 42% of the total emissions from gas extraction and use in Australia.<sup>5</sup> Rapidly scaling back and ceasing gas exports is one of the most significant actions Australia could take to reduce our own emissions in line with our obligations, and assist other countries on their decarbonisation pathways. Accordingly, the gas strategy for exports should include:

- An immediate moratorium on new gas projects or expansion of existing gas production in Australia.
- Ensuring there are no exports to countries whose use of imported Australian gas would see them unable to meet their emissions reductions commitments and keep emissions-related temperature increases to 1.5 degrees or lower.
- A plan to rapidly scale back and cease gas exports.
- A mechanism to increase royalties gas exports. This revenue should be reserved for decarbonisation, transition and climate response investments including electrification.
- Mechanisms to independently measure, monitor and reduce actual fugitive and other emissions relating to production, transport and export, for the remaining duration of domestic gas production and export.

## **6. Supply**

### **6.1 Regulatory and legislative change**

Existing regulations of gas businesses, particularly gas network businesses, are not consistent with climate change policies and a contemporary understanding of what will be required to efficiently transition and decarbonise the energy system. Existing legislation, regulation and governance is predicated on supporting investment in expanding gas networks and increasing gas utilisation. This includes legislative and policy frameworks for the National Gas Law, the National Gas Rules, and State and Territory legislation governing the use and operation of gas infrastructure in each jurisdiction.

Reducing domestic gas demand and meeting emissions reduction targets will require electrification of most existing domestic gas use and the managed decommissioning of gas networks. The current legislative and regulatory framework must be reformed in order to accommodate and facilitate this efficiently.

Managed reduction in domestic gas demand, which this strategy should help enable, involves risks which must be managed and mitigated to ensure consumers are not unreasonably impacted. This will require changes to National Gas Law, regulation and policy, considered holistically in conjunction with retail pricing and practices, to manage risks and costs for gas networks and consumers, and support a rapid, managed energy system transition. This strategy can highlight the need for a plan to accomplish this, with this plan including actions to:

- Improve co-ordination between governments, regulators & businesses. This should seek to align policy, planning and investments to enable the transformation of Australia's energy system away from reticulated gas.

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<sup>5</sup> Consultation paper p.2

- Reform of national and State specific energy laws, standards and rules to ensure they are fit for purpose to facilitate the efficient, managed retreat of gas distribution networks.
- Reform of State planning laws and regulations to prioritise electrification, remove preferences for gas and support conversion.
- Improve appliance standards and ensure robust compliance, including ensuring open interoperability of device operation and management systems.
- Ensure a unified whole-of-government responsibility to implement and oversee the progress and effectiveness of reforms.

## **6.2 Planned retreat of the residential gas network**

Reducing domestic demand relies on facilitating the orderly retreat of the residential gas network. Co-ordinated policy, regulatory signals and supporting policies from the Commonwealth government would allow regulators and gas businesses to plan for and enable an orderly retreat of gas networks to manage the rapid, efficient reduction of domestic gas demand.

The strategy could highlight actions supporting this, including:

- Encouraging and supporting States and Territories to implement immediate moratoriums and bans on new connections to residential developments. Ending new gas connections ensures residential gas demand peaks immediately and ensures the challenge of domestic gas network retreat is only as big as it is today.
- Recommend initiation of a process to consider comprehensive reform of gas laws and regulations to enable efficient, staged gas network retreat as a key plank of domestic demand reduction.
- Recommend specific regulatory changes to ensure the full costs of any new gas connections to non-residential developments are fully recovered from the connecting entity with ongoing risk assumed by the gas network business.
- Recommend specific regulatory reform to enable gas network businesses to refuse new connection requests.
- Recommend policy and regulatory reform to allow (and require) gas network businesses to assess their networks and progressively plan for and implement staged network retreat where it is efficient to do so. This will be a key plank of a managed reduction in domestic demand.
- Highlight the need to consider the appropriate sharing of costs and risks of potential unrecovered gas network assets between consumers, governments and gas network businesses.
- Recommend the development of co-ordinated measures for gas networks to work with Governments to assist vulnerable households through supporting targeted electrification.

- Recommend that future new gas network investments (such as network conversions and augmentations to accommodate distributed hydrogen to households) are solely the risk (and cost) responsibility of gas network businesses and cannot be recovered from existing household consumers .
- Encourage or require gas businesses to identify areas of declining demand or ‘inefficient’ network utilisation as a basis for managed network retreat with sufficient signals to consumers and governments.
- Highlighting the need to provide targeted assistance to consumers (especially those experiencing vulnerability). This should include encouraging gas businesses to direct budgets for innovation, marketing (such as those currently used to subsidise new gas appliances) and demand management, towards supporting consumers to reduce their demand and efficiently disconnect from gas.
- Consider the need for measures to support the write down of gas network business assets.

Gas businesses have known about the risks of climate change and the role of methane for many years and prudent risk management should have involved planning for network retreat and declines in demand without unreasonable impacts on consumers.

Concerningly, far from prudent risk management and future planning, gas network businesses have incentivised new connections and increased household gas demand. This has included continuing to offer incentives for households to switch to gas appliances without providing accurate information regarding the impacts and costs of those appliances and the risk that households will be left with stranded investments. This strategy must help address these issues and should seek to highlight every opportunity to encourage, require and enable gas businesses to support the rapid reduction of domestic gas demand.

### **6.3 Risks to consumers**

Without coordination, leadership, supports and strong policy signals from the Commonwealth government, consumers will face considerable risks from the inevitable changes to gas use and supply as part of necessary measures to reduce domestic gas demand.

Consumers experiencing disadvantage, and those without the agency or resources to efficiently electrify will experience further impacts on energy affordability as the customer base shrinks and gas supply becomes more expensive. The strategy must highlight the need to prioritise these cohorts in plans to electrify, to ensure rapid reductions in domestic gas demand also contribute to improved energy equity and affordability.

## **7. Alternatives to methane gas**

The evidence-based alternatives to methane gas are, in order of applicability and impact, energy efficiency, electrification, household renewables and batteries, demand response and dynamic demand management, and targeted use of biogas and hydrogen. These alternatives must be implemented and supported according to their merits to ensure the most effective and efficient

solutions are pursued. For instance, hydrogen is not a viable option for residential use and its characteristics indicate it should initially be supported as the best solution to the decarbonisation of existing hydrogen related product use.

## **7.1 Efficient residential electrification**

PIAC strongly supports the efficient electrification of Australian homes as the best, most efficient and affordable means of reducing household gas demand and addressing household emissions. Efficient, renewable electrification of Australian households is also a key contributor to a more efficient energy system, and improved energy affordability and equity.

No potential 'alternatives' to efficient household electrification address the household cost-implications of maintaining a secondary network connection for gas, a connection with rapidly reducing utility and increasing cost. Any alternatives also fail to address the substantial lost value for households (particularly those without solar of their own) and the community, in being able to benefit from solar energy through demand flexibility of their largest household loads (such as water heating and space heating). Increasingly, households can access cheap (or even free) energy during times of high solar generation, with dual fuel households twice disadvantaged by increased costs as well as lost opportunities to benefit.

PIAC is coordinating the 'Efficient Electric Homes Collaboration' (EEHC). EEHC involves over sixty organisations from across social, environmental, climate and industry sectors. The EEHC is guided by promotion of the following objective:

Rapid renewable electrification and improved energy performance of Australia's homes – new and existing – to benefit household energy equity, affordability and health, while accelerating progress to zero emissions and a more resilient economy and community.

Efficient residential electrification is a substantial nation-building task made significantly easier, more equitable and less costly if commenced immediately. PIAC recommends the strategy support the following timeline, developed and supported by organisations involved in the EEHC, as a key measure to reduce domestic gas demand.

### **Level 1 – All homes**

- All homes to be efficient and electric by 2035 – where 2035 is a crucial emissions reduction target point and one where the energy system will be substantially renewable.

### **Level 2 – new and existing homes**

- All new homes – efficient and electric no later than 2025 – where this involves immediately proceeding to 'zero-carbon ready' new homes to minimise the future retrofit burden.
- Existing homes – are retrofitted to be efficient and electric by 2035 – where this is a stretch target to inform action and provide certainty, and may involve allowing minimal, defined exceptions.

### **Level 3 – priority retrofits**

- Public and community housing is efficient and electric before 2030 – where these represent an economically efficient opportunity to build supply chains and markets while prioritising equity in the transition for those facing the biggest barriers and most likely to benefit.

- First Nations regional and remote communities housing is efficient and electric before 2030 – where these represent an opportunity to prioritise equity.
- Low-income owner occupier housing is efficient and electric by 2030 – where these are a priority group requiring government assistance and support and represent an opportunity to prioritise equity.
- Rental standards for energy efficient and electric homes are mandated by 2025 in line with the community blueprint for minimum energy efficiency standards for rentals<sup>1</sup>. Full compliance with transition to all-electric rental properties should then be required by no later than 2035 – where this represents a crucial measure to prioritise equity and address the standards of existing housing stock and improve outcomes for more than 30% of the population who would otherwise be locked out of the benefits of efficient electrification.

For further detail on efficient, renewable electrification, PIAC and other community and industry stakeholders have provided substantive submissions to both the National Energy Performance Strategy <sup>6</sup> and the Senate Inquiry into Residential Electrification.<sup>7</sup>

## 7.2 Biogases and hydrogen

Biogases and hydrogen will have a role to play in replacing methane gas in targeted circumstances where no other solution exists, and where they are the most efficient, effective and lowest emissions option. Substituting methane with biogases or hydrogen in the residential gas distribution network is not plausible, efficient or effective. Residential use of hydrogen or biogases as potential ‘alternatives’ to the methane gas residential network either fail to contribute to emissions reduction and improved household health or involve substantial unnecessary cost and risk to households. Use of either in gas networks would represent an inefficient ‘waste’ of resources whose economic supply is limited and would be better utilised elsewhere.

### 7.2.1 Hydrogen

Hydrogen will have a role to play in decarbonisation and the transition to a prosperous renewable economy. The shape and scope of that role must be shaped to meet the specific needs of the Australian community and economy, and must best promote the interests of the Australian people.

Hydrogen is not a viable or plausible solution for households in the foreseeable future. Due to the properties of hydrogen and methane, hydrogen could only make a meaningful contribution to emissions reduction where it is 100% of the gas used in the network. The cost implications for repurposing the current fossil gas network to accommodate green hydrogen, particularly in the short term, make this practically impossible. It is also important to consider that any green hydrogen would be produced using the very same renewable energy which household electrification would rely on, at astronomically greater cost to households and the energy system, and with significantly lesser efficiency. Hydrogen is not a viable alternative for households and efforts to commercialise green hydrogen should be directed towards those uses where it is most suitable and efficient.

<sup>6</sup> PIAC 2023 [Submission to the National Energy Performance Strategy Consultation Paper](#)

<sup>7</sup> PIAC 2023 [Submission to the Senate Economic Reference Committee Inquiry into Residential Electrification](#)

PIAC provided a more detailed response on the future of hydrogen to the recent National Hydrogen Strategy Review<sup>8</sup>.

### **7.2.2 Biogases**

Biogases (such as biomethane) are often presented as an alternative for households as they are functionally similar to existing gas. While biogases will be required in decarbonisation, biogas is not viable as a wholesale replacement for the current residential gas network. Utilising biogases does not address the household health implications of gas usage in homes. It would also continue to leave households inefficiently supporting two networks and unable to benefit from the rapid growth of solar energy. There are also functional limits to the amount of efficiently and economically accessible biogases, and these sources should be retained for uses where more efficient decarbonisation options are not available such as high-temperature heat applications, and as a feedstock.

Biogas is likely to have a very small, targeted role as a temporary solution for the small number of dwellings that are impossible to efficiently electrify in the short term.

## **8. Direct responses to questions**

### **1. What role do you see gas-fired generators playing in supporting Australia's 82% renewable energy targets and beyond?**

Gas-fired generators will have an important but limited role in supporting Australia's transition to 82% renewable energy. As outlined in earlier sections of this submission, the strategy should apply a 'merit-order' to determine the appropriate role for gas. Renewables, batteries and long-term storage should be encouraged as the preferred support for the energy system transition, with the role of gas and coal minimised. The remaining role for gas generation should ensure gas generators efficiently utilise genuinely renewable gases and have any residual emissions robustly offset.

### **2. How feasible, and at what scale, are alternatives to natural gas for the electricity sector? You may wish to consider renewable gas alternatives for peaking generation, for example, biomethane and low-emissions hydrogen and other forms of grid-firming technologies like batteries and pumped hydroelectricity. What barriers exist to using these alternatives?**

As above – see also chapter 7 of this submission.

### **3. If your home or small business gas appliances (stove, heating, or hot water system) stop working, would you prefer to keep using gas or switch to an electric appliance? If you are unsure, what would help you decide? What factors influence your willingness to switch to electric appliances?**

While it is important to understand consumer preferences in order to shape effective responses that mean consumer needs, the gas strategy should not be predicated on uninformed consumer choice or fuel agnosticism. The strategy must be based on objective evidence regarding what is

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<sup>8</sup> PIAC 2023 [Submission to National Hydrogen Strategy Review Consultation Paper](#)



required to meet our climate obligations, and robust assessments of what is in the best interests of consumers equitable access to affordable, sustainable and efficient energy that meets their needs. In this regard, consumers are concerned that household appliances are efficient, effective and value for money.

The strategy should focus on the crucial role of the Commonwealth Government in providing strong, consistent policy signals to enable gas demand reduction and supports to households to efficiently electrify. See PIAC's previously referenced submission to the Senate Inquiry into Residential Electrification for further detail on how households can be supported to efficiently electrify.

#### **4. How can governments, industry and households work together to manage impacts for homes?**

PIAC provided detailed responses and recommendations (including additional references) on the role Governments, industry and households in section 5.1, chapter 6 and section 7.1.

#### **5. What do you see as the role of gas in Australia's net-zero transformation?**

There is a limited and rapidly diminishing role for gas in our net-zero transformation. Methane must be rapidly phased out and replaced with efficient electric or genuinely zero or lowest carbon alternatives. See section 7.2 for further information on the role of biogases and hydrogen.

#### **6. How can Australian LNG accelerate global decarbonisation without compromising energy security or affordability?**

The only role Australian LNG can play in support of global decarbonisation is one of rapid, managed phase-out. Methane is a destructive fossil fuel and Australian supply of this fuel represents a contribution to global emissions that far exceeds our own (substantial) domestic emissions contribution. The continued use of methane is incompatible with global climate requirements and arguments citing LNG as a necessary support for energy affordability are neither credible nor genuine. PIAC highlights previously cited reports by the IEA supporting the position that elimination of global LNG and methane production is an urgent priority.

#### **7. What are the major barriers and opportunities for new supply? How can the Australian Government prioritise, mitigate or manage these?**

The Australian Government cannot consider new supply as it is incompatible with our emissions reduction targets and international commitments to maintain climate-change related temperature increases to below 1.5-2 degrees.

Any perceived supply inadequacy issues must be managed through rapid reduction of domestic demand. The Australian Government should prioritise demand reduction through adoption of a merit-order response to remove and eliminate, reduce and replace domestic gas use. See Chapters 5 and 6 of this submission for further detail.

**8. What are some of the opportunities for gas production in Australia in the medium (to 2035) and long term (to 2050)? How could these necessary developments support decarbonisation consistent with achieving emissions reductions goals?**

Gas production has no medium to long term prospects in any future compatible with our climate change related commitments and requirements. There is no possible gas development which does not materially undermine our decarbonisation and emissions reductions goals. The Australian Government and this strategy must prevent new production and focus on rapid reduction in demand to manage future energy needs in a manner consistent with our emissions reduction requirements.

**9. How can the Australian Government better communicate and provide more transparency to local communities regarding gas projects?**

The Australian Government must practice and require evidence based transparency and honesty regarding gas projects with local communities. Specifically, this means:

- presenting reliable and accurate information regarding the impact of existing gas production and gas emissions
- giving accurate and unexaggerated indications of the economic and employment contributions of existing gas projects
- meaningful engaging with communities regarding the future of existing gas projects in their region, how they will be decommissioned and how to plan for a fair and prosperous transition.

**10. How can all levels of governments better support the industry to engage with First Nations people and community groups?**

The First Nations Clean Energy Network has published Best Practice Principles for Clean Energy Projects.<sup>9</sup> These principles can help to inform how governments and industry can engage with First Nations people and groups that will be impacted by the decommissioning of gas projects.

**11. How can Australia support the potential for cost-effective, safe and verifiable CCS projects, including for the gas sector, other industries and our region?**

There is no cost-effective or verifiable CCS project in Australia and no prospect for any within the timeframes required for meaningful emissions reduction. Despite substantial taxpayer subsidy CCS has remained fundamentally ineffective and totally uneconomic at any material scale. Any implementation of CCS would unacceptably increase costs to consumers, with unreliable emissions reductions impacts. An evidenced based approach and a strategy grounded in robust principles of effectiveness and efficiency should provide no further support for CCS and invest in existing, efficient and affordable alternatives to emissions intensive gases.

PIAC contends that if a Remove > Reduce > Replace merit order of action is meaningfully adopted in this strategy, there should be almost no circumstances where carbon capture, use or offset is required.

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<sup>9</sup> First Nations Clean Energy Network 2022 [Aboriginal and Torres Strait Islander Best Practice Principles for Clean Energy Projects](#)

**12. How fit for purpose is Australia’s gas transmission and distribution network?**

See section 6.2 of this submission

**13. What changes should be made to the transmission and distribution network to prepare for the changing profile of gas demand in Australia? What risks and opportunities would this entail?**

See section 6.2 of this submission

**14. What do you see as the biggest risk to the ongoing affordability of Australia’s domestic gas supply? For example, what are risks to affordability in the wholesale or retail market?**

See section 6.3 of this submission.

**15. What reforms can be made at a Commonwealth, state, territory, or industry level to allow gas supply to be more responsive to domestic demand signals?**

This strategy should have a priority objective to manage supply needs by rapidly reducing domestic gas demand. PAIC has provided detailed recommendations for co-ordinated reforms that could be adopted through this strategy (and through other relevant policy reform processes) throughout this submission.

**16. What actions are available to lower gas costs, including substitution and new supply, to provide certainty to consumers? How would these actions further the Australian Government’s decarbonisation goals?**

This strategy must seek to provide certainty to consumers by setting an objective for rapid reduction of domestic demand and the elimination of domestic gas use. Actions identified in this strategy should focus on rapid efficient renewable electrification of homes (as part of a broader electrification process) as the lowest cost pathway for decarbonising the energy system and improving long term energy affordability and equity.

## **9. Further Resources**

### **Gas is costing Australian households**

The following resources include modelling and costings demonstrating how much more dual-fuel households pay for their energy compared to efficient, electric homes.

Environment Victoria 2023 ‘It’s a Gas: How ditching gas this winter can cut heating bills by 75%’  
<https://environmentvictoria.org.au/2023/07/19/its-a-gas-how-ditching-gas-this-winter-can-cut-heating-bills-by-75/>

Climate Council 2022 ‘Switch and Save: How Gas is Costing Households’  
<https://www.climatecouncil.org.au/resources/switch-and-save-how-gas-is-costing-households/>

Renew 2021, 'Households Better Off: Lowering energy bills with the 2022 National Construction Code' <https://renew.org.au/wp-content/uploads/2021/10/Households-Better-Off-full-report.pdf>

Renew 2022, 'Limiting energy bills by getting off gas' <https://renew.org.au/wp-content/uploads/2022/11/Report-Limiting-energy-bills-by-getting-off-gas.pdf>

### **Health impacts of gas**

The following resources detail some of the health risks from the use of gas in homes

Climate Council 2021, 'Kicking the Gas Habit: How Gas is Harming our Health' <https://www.climatecouncil.org.au/wp-content/uploads/2021/05/Kicking-the-Gas-Habit-How-Gas-is-Harming-our-Health.pdf>

Doctors for the Environment 2020 'Home Gas Appliances and Your Health: Fact Sheet' <https://dea.org.au/home-gas-appliances-and-your-health-fact-sheet/>

### **Gas network transition – necessity, risks & myth-busting**

The following resources provide greater detail into why a retreat of the gas network is necessary and policy requirements for advancing efficient renewable electrification. Some of these resources address stranded assets, risk management and cost recovery.

Grattan Institute 2023 'Getting off gas: why, how, and who should pay?' <https://grattan.edu.au/report/getting-off-gas/>

Energy Consumers Australia 2023 'Stepping Up: A smoother pathway to decarbonising homes' <https://energyconsumersaustralia.com.au/wp-content/uploads/Stepping-Up-Report-Final.pdf>

Energy Consumers Australia 2023 'Risks to gas consumers of declining demand' <https://energyconsumersaustralia.com.au/publications/risks-to-gas-consumers-of-declining-demand>

Institute for Energy Economics and Financial Analysis 2023 'Renewable gas' campaigns leave Victorian gas distribution networks and consumers at risk' <https://ieefa.org/resources/renewable-gas-campaigns-leave-victorian-gas-distribution-networks-and-consumers-risk>

Friends of the Earth, Melbourne 2023 'Community Gas Retirement Roadmap: How and why to get off gas in Victoria' [https://www.melbournefoe.org.au/community\\_gas\\_retirement\\_roadmap](https://www.melbournefoe.org.au/community_gas_retirement_roadmap)

### **Electrification and Decarbonisation**

The following resources provide further detail on how efficient electrification of Australian homes can contribute to our emissions reduction efforts and our climate commitments.

Climateworks Centre 2018 'Decarbonisation Futures: buildings' <https://www.climateworkscentre.org/resource/decarbonisation-futures-buildings/>

Energy Efficiency Council 2023 'Clean Energy, Clean Demand: Enabling a zero emissions energy system with energy management, renewables and electrification' <https://www.eec.org.au/policy-advocacy/publications/Clean-Energy-Clean-Demand-April-2023>