6 June 2025

## Submission: Productivity Commission - Pillar 5: Investing in cheaper, cleaner energy and the net zero transformation

The Australian Pipelines and Gas Association (APGA) represents the owners, operators, designers, constructors and service providers of Australia's pipeline infrastructure—connecting natural and renewable gas production with users across the country. APGA members enable the safe, efficient delivery of over 1,500 petajoules of gas annually to domestic consumers, and more than 4,500 petajoules for export.

APGA and its members are at the forefront of Australia's renewable gas industry, helping achieve net-zero more quickly and affordably. We support a net zero emission future for Australia by 2050[1] and consider renewable gases to represent a real, technically viable approach to lowest-cost energy decarbonisation in Australia. APGA sees renewable gases such as hydrogen and biomethane playing a critical role in decarbonising gas use for both wholesale and retail customers.[2]

We welcome the opportunity to contribute to the Productivity Commission's consultation on Pillar 5: *Investing in Cheaper, Cleaner Energy and the Net Zero Transformation*. As the peak body for gas infrastructure, APGA is at the forefront of Australia's renewable gas transition, actively advocating for reform, contributing to research, and working with industry to unlock the role of biomethane, hydrogen and gas-powered generation in a low-emissions future.

To reduce the cost of meeting carbon targets, APGA recommends:

- **Adopt a technology-neutral, coordinated approach across sectors**. Emissions reduction policies should avoid technology bias and fragmentation. APGA recommends nationally consistent, market-based frameworks like a Renewable Gas Target (RGT), which can deliver lower-cost abatement by allowing all technologies—electrification, renewable gases, and sustainable fuels—to compete equally.
- **Close policy gaps in gas and renewable fuels.** Key omissions include the absence of an RGT, exclusion of GPG from long-term energy and capacity investment schemes, lack of support for renewable fuels in transport, lack of a strategy for reusing or repurposing Australia's extensive gas infrastructure, and limited attention to hard-to-abate industrial sectors reliant on gaseous fuels.
- **Address overlapping and inconsistent sectoral policies**. Decarbonisation plans across industry, transport, and electricity sectors both duplicate and conflict due to differing

[1] APGA, *Climate Statement*, available at: https://www.apga.org.au/apga-climate-statement
[2] ACIL Allen, 2024, *Renewable Gas Target – Delivering lower cost decarbonisation for gas customers and the Australian economy*, https://apga.org.au/renewable-gas-target

energy assumptions and policy designs. APGA recommends aligning the energy use aspects of all plans with the Electricity and Energy Sector Plan (EESP).

- **Streamline emissions accounting and regulatory frameworks**. Overlapping certificate and reporting schemes (e.g., Safeguard Mechanism, state targets, voluntary programs) increase complexity and costs. APGA supports harmonised emissions tracking, certificate integration for renewable gases, and clearer intergovernmental alignment to ensure efficient, consistent carbon accounting.

To discuss any of the above feedback further, please contact me on +61 409 489 814 or policy@apga.org.au.

Yours sincerely,

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## Consultation questions - Section 2: Reducing the cost of meeting carbon targets

### What could be done to improve the cost-effectiveness and alignment of policies to reduce emissions across the industrial, electricity and transport sectors?

Australia's transition to net zero must be guided by policies that deliver emissions reduction at the lowest possible cost to maintain community support. However, current emissions-reduction efforts across sectors are often fragmented, technology-biased, or duplicative – resulting in higher costs and missed opportunities. Disjointed policy frameworks can lead to conflicting signals for investors, and to inefficient allocation of capital across sectors.

The Productivity Commission has previously identified[3] disparities in the cost of abatement under different policy mechanisms. This becomes more apparent where policy choices are driven by a preferred end-use technology rather than by least-cost abatement across the economy. As it stands, no consistent carbon value exists across sectors – while electricity enjoys comprehensive decarbonisation mechanisms, natural and renewable gases and liquid fuels remain primarily sidelined despite their crucial role in industry and transport.

**Australian emissions reduction policy measures**

| Level of Government | Policy | $ per tonne of $CO_2$-e[a] |
|---|---|---|
| Commonwealth | Renewable energy target — Small-scale technology certificates | $57–209[c] |
| | Renewable energy target — Large-scale generation certificates | $60–220[c] |
| | Emissions Reduction Fund (ACCUs) | |
| | — Average fixed-delivery price[d] | $12–59[f] |
| | — Spot price[e] | $29–144[f] |
| | Discounted excise for E10[g] | $128–274[h] |
| | Discounted excise for B20[g] | $135–152[h] |
| New South Wales | Energy savings certificates[i] | $41 ($32–59) |
| | $3000 EV subsidy and stamp duty exemption | $217–9470[b] |
| Victoria | Victorian energy efficiency certificates[j] | $69.25 |
| | $3000 EV subsidy and registration discount | $203–6999[b] |

**Box 3.4 Indirect carbon prices in Australia, selected policies**

| | | |
|---|---|---|
| Queensland | $3000 EV subsidy and stamp duty discount | $165–7205[b] |
| Australian Capital Territory | EV stamp duty exemption | $83–3608[b] |
| Northern Territory | EV stamp duty discount and registration discount | $92–3,837[b] |
| Tasmania | EV stamp duty exemption | $95–4117[b] |
| South Australia | $3000 EV subsidy and registration exemption for three years | $239–10 406[b] |
| Western Australia | $3500 EV subsidy | $165–7205[b] |

[3] Productivity Commission, 2023, 5-year Productivity Inquiry: Managing the climate transition, https://www.pc.gov.au/inquiries/completed/productivity/report/productivity-volume6-climate-transition.pdf

To correct this imbalance, APGA urges a broad-based, technology-neutral approach that uses consistent market signals across all sectors. This means avoiding prescriptive interventions and instead allowing the lowest-cost technologies, whether electrification, biofuels, hydrogen or biomethane, to compete on equal footing. Ensuring policy frameworks reflect this principle will unlock more efficient decarbonisation and reduce the burden on households, businesses and government.

A clear example of this approach in action is a national Renewable Gas Target (RGT). APGA commissioned economic modelling from ACIL Allen showing that an RGT, similar in design to the Renewable Energy Target (RET), can decarbonise gas use at significantly lower cost than an electrification-only strategy.[4]

| Scenario | Emissions (2025-2060) | Present value of resource cost (2020-2060) | Abatement cost | Change in real economic output (GDP) relative to No Action scenario (2020-2060) | Change in GDP relative to Theoretical Efficient Policy scenario (2020-2060) |
|---|---|---|---|---|---|
| | Mt $CO_2$-e | $b | $/tonne $CO_2$-e | $b | $b |
| No Action | 1,591 | $140 | | | |
| Theoretical Efficient Policy | 724 | $192 | $143 | -$121 | $0 |
| Electrify Everything Possible | 729 | $201 | $165 | -$154 | -$33 |
| Optimal RGT | 722 | $195 | $150 | -$124 | -$3 |
| Accelerated RGT | 714 | $202 | $164 | -$150 | -$29 |

Under a broad RGT scenario, around two-thirds of remaining gas demand is met by biomethane and hydrogen, with the balance supplied by renewable electricity. This pathway achieves emissions reductions at an average of $150 per tonne of $CO_2$-e abated, compared to ~$165/t under an electrification-only model. Crucially, it maintains choice and flexibility for consumers, and preserves critical energy resilience for industry and the grid.

Improving alignment also means ensuring consistency across jurisdictions. One clear example of misalignment is the exclusion of gas-fired generation (GPG) from long-term investment schemes such as the Capacity Investment Scheme (CIS), despite AEMO confirming that renewable energy backed by GPG is the lowest-cost path to a reliable grid[5].

This omission distorts investment decisions and risks underdelivering the firm capacity needed as coal exits the system. In the absence of national mechanisms that include GPG, jurisdictions are now moving to fill the gap independently. South Australia has announced it will use the FERM (Firming Energy Reliability Mechanism)[6] to underwrite new firm capacity, including gas. APGA supports this scheme.

[4] ACIL Allen, 2024, *Renewable Gas Target: Delivering lower cost decarbonisation for gas customers and the Australian economy*, https://apga.org.au/renewable-gas-target
[5] AEMO, 2024, *2024 Integrated System Plan*, https://aemo.com.au/-/media/files/major-publications/isp/2024/2024-integrated-system-plan-isp.pdf
[6] SA Department for Energy and Mining, 2024, Firm Energy Reliability Mechanism, https://www.energymining.sa.gov.au/__data/assets/pdf_file/0016/1110364/Consultation_Paper_-_Firm_Energy_Reliability_Mechanism.pdf

But this highlights a growing problem: rather than a coordinated NEM-wide approach to reliability and emissions, we are seeing a patchwork of state-based mechanisms. This fragmentation undermines investment certainty and may lead to duplicative or conflicting infrastructure decisions within what is supposed to be a nationally integrated market.

Likewise, emissions accounting frameworks must keep pace with Australia's evolving energy mix. APGA has long advocated for market-based emissions reporting for renewable gas under the National Greenhouse and Energy Reporting (NGER) scheme. Reforms to enable this are now well underway, with a draft market-based method[7] under development by the Department of Climate Change, Energy, the Environment and Water (DCCEEW).

Recognition of biomethane and renewable hydrogen certificates, such as those issued under GreenPower or a future Guarantee of Origin, will allow businesses to claim legitimate emissions reductions and unlock significant private investment. Ensuring this method is finalised, integrated with gas markets, and allows certificate surrender across a reasonable vintage period will be critical. Without it, commercially viable renewable gas projects will continue to face avoidable barriers despite being technically ready.

To improve cost-effectiveness and alignment of emissions policies across sectors, we recommend:

1. **Introduce a national Renewable Gas Target (RGT)**
   Establish a nationally consistent RGT to drive investment in renewable gases such as biomethane and hydrogen. This would mirror the role the RET played in renewable electricity, support hard-to-abate sectors, and deliver abatement at significantly lower cost than an electrification-only strategy.

2. **Expand investment mechanisms to include gas-powered generation (GPG)**
   Extend the Capacity Investment Scheme (CIS) or create an equivalent framework that includes low-carbon and renewable gas firming capacity. This would correct current investment distortions and ensure dispatchable capacity as coal exits the system.

3. **Promote consistent, nationally coordinated sectoral planning**
   Avoid fragmented or overlapping emissions frameworks by aligning sectoral decarbonisation plans under a single, whole-of-economy roadmap. Ensure that all sector plans, including those for transport, industry and agriculture, defer energy system design choices to the Electricity and Energy Sector Plan.

4. **Ensure technology-neutral policy design across sectors**
   Avoid one-size-fits-all electrification mandates by enabling competition between decarbonisation pathways. Recognise the role of electrification, renewable gases and sustainable liquid fuels as complementary, not competing, solutions to industrial and transport decarbonisation.

[7] DCCEEW, 2025, *National Greenhouse and Energy Reporting Amendment*, https://storage.googleapis.com/files-au-climate/climate-au/p/prj33b1fefd5821c51c94629/page/2025_NGER_update_instrument_v_5.1.pdf

## Are there gaps in the emissions-reduction policies in the industrial, electricity and transport sectors which should be addressed?

APGA has identified several critical omissions in current emissions-reduction policies that, if left unaddressed, will increase the overall cost of Australia's net zero transition and risk excluding major energy users from viable decarbonisation pathways. These gaps have been raised in APGA's submissions to the Electricity and Energy Sector Plan (EESP), the Transport Sector Plan (TSP), and through engagement with government and regulators.

**No national renewable gas target.**

While renewable electricity benefits from a well-established Renewable Energy Target (RET), there is no equivalent scheme to stimulate demand and investment in renewable gas. APGA has recommended the introduction of a Renewable Gas Target (RGT), with aspirational volumes in the range of 5–10% of gas supply by 2030 and 15–25% by 2035. This would support the uptake of renewable gases such as biomethane and hydrogen.

**Lack of gas firming support in electricity policy.**

GPG is excluded from major long-term investment mechanisms like the CIS. As a result, investors face limited incentives to bring forward new firming capacity, which risks underdelivering the dispatchable resources needed as coal exits the system. South Australia's recent decision to deploy the FERM to underwrite new firm capacity, including gas, is a positive step. However, it highlights a growing problem: in the absence of coordinated national frameworks, jurisdictions are moving independently, increasing the risk of policy fragmentation and conflicting investment signals across an interconnected NEM.

**Lack of renewable fuel pathways for transport.**

The transport sector lacks a technology-neutral framework to support the widespread adoption of renewable fuels such as bio-CNG, hydrogen and Sustainable Aviation Fuel (SAF). While federal budget commitments are a welcome step, such as funding to expand the Guarantee of Origin scheme to cover low-carbon liquid fuels and undertaking regulatory impact analysis for demand-side measures, several significant gaps remain.

Pipelines can play a critical role in delivering renewable fuels to transport hubs, as they do for currently for fuels, but there is currently no policy support to integrate renewable hydrogen or SAF into existing pipeline same networks, nor are there standards or certification frameworks in place that would enable low-carbon transport fuels to be scaled up reliably and efficiently.

Implementing a method through the Guarantee of Origin Scheme for renewable liquid fuels is currently not a priority and there are no alternative certification schemes available. This creates uncertainty for both producers and end users, delaying commercial uptake and discouraging infrastructure investment.

APGA continues to advocate for a fuel-agnostic, infrastructure-inclusive policy framework that allows pipelines and renewable gas supply chains to support transport decarbonisation in parallel with electricity.

**Lack of policy focus on hard-to-abate sectors.**

Australia risks undermining its energy security by phasing out parts of the gas system before a credible, fit-for-purpose replacement is in place. Policies which disproportionately focus on electrifying residential gas use are proceeding without any comprehensive strategy to decarbonise industrial gas demand, or preserve network viability for industrial, commercial or residential users who can't readily switch.

Gas-reliant industries, many of them trade-exposed, are being left to shoulder the cost of a shrinking shared network. These industries have few viable substitutes for high-temperature heat, process energy or chemical feedstocks.

APGA has consistently advocated for renewable gas and hydrogen to be prioritised as decarbonisation solutions for all sectors, offering a scalable path to industrial decarbonisation.

**No strategy for repurposing gas infrastructure.**

There is currently no national strategy for the adaptive reuse of Australia's 42,000 kilometre-long network of gas transmission pipelines, many of which are suitable for conversion to 100% hydrogen. APGA has recommended a pipeline corridor strategy[8] to identify high-potential hydrogen routes along freight corridors and industrial zones. Planning decisions made in isolation will undermine network efficiency and delaying decarbonisation progress.

### Are there emissions-reduction policies that overlap across the industrial, electricity and transport sectors, and what should be done to address duplication?

Australia's net zero transition requires sectoral coordination, not duplication. While cross-sector mechanisms (like the Safeguard Mechanism) are vital, a growing number of policies are emerging in isolation, with overlapping goals but inconsistent design. These duplications risk distorting investment, increasing compliance costs, and undermining national efficiency.

The most pressing duplication is in energy system design itself. Multiple sectors, including industry, residential, and transport, are now governed by decarbonisation plans that assume their own preferred fuel mix. For instance, the Transport Sector Plan pushes electrification of freight; the EESP is developing its own capacity investment strategy; and industrial users face different rules under Safeguard Mechanism baselines and state policies. Each plan incorporates embedded assumptions about electricity supply, firming, or hydrogen availability yet these assumptions often diverge.

The result is a fragmented approach where multiple sectors plan for the same energy infrastructure without alignment on availability, cost, or delivery timelines. This inefficiency risks grid stress, stranded assets, and unnecessary capital duplication.

To address this, APGA recommends that:

- All sectoral decarbonisation plans be anchored to the Electricity and Energy Sector Plan (EESP). Energy system design decisions, such as whether hydrogen, electricity, or

[8] APGA Submission, Transport and Infrastructure Roadmap, July 2024

gaseous fuels are most efficient, should be made once, centrally, through the EESP, then reflected consistently across all sector strategies.

- Modelling inputs and outputs be standardised across sectoral plans. This avoids contradictory demand forecasts and ensures that infrastructure planning reflects whole-of-economy needs, not just sectoral ambitions.
- A single investment coordination body be tasked with aligning cross-sector energy infrastructure priorities, including hydrogen corridors, gas repurposing, electricity firming and transport refuelling. This could be housed within Infrastructure Australia or under the Net Zero Authority.

There is also duplication in emissions accounting frameworks. Different schemes (e.g. GreenPower, VEECs, the proposed Guarantee of Origin, and state-based hydrogen targets) apply overlapping but inconsistent treatment of emissions and certificate recognition. A fuel user could simultaneously be regulated under Safeguard Mechanism, constrained by a state emissions cap, and participating in a voluntary certification scheme—each with separate baselines, reporting methods, and compliance costs.

To streamline this, APGA supports:

- A national certificate clearinghouse to coordinate across electricity, hydrogen, biomethane, and transport fuels, avoiding double-counting and reducing regulatory overhead.
- Harmonisation of certificate retirement periods and reporting treatment across all fuel types.
- Integration of renewable gas certificate recognition into the Safeguard Mechanism, NGERs, and future market-based carbon reporting tools.

Finally, regulatory duplication between Commonwealth and state schemes is increasing. For example:

- The CIS and state-based firming auctions (e.g. FERM in SA) both aim to address dispatchable generation shortfalls but lack mutual recognition.
- Victorian electrification mandates overlap with Commonwealth energy performance and Safeguard policies, without accounting for industrial competitiveness.
- Fuel switching incentives in residential sectors differ between jurisdictions yet interact with the same distribution infrastructure.

Addressing this overlap requires genuine intergovernmental coordination. The Energy and Climate Change Ministerial Council should explicitly align state and federal incentive mechanisms, and develop shared definitions of "low-carbon fuels", "firming", and "renewable energy" to avoid cross-subsidy distortions.