



INVESTING IN CHEAPER, CLEANER ENERGY AND THE NET ZERO TRANSFORMATION

WWF-Australia appreciates the opportunity to make a submission to the Productivity Commission's interim report inquiry into *Investing in cheaper, cleaner energy and the net zero transformation* (Pillar 5). The following submission builds on our previous joint response to the inquiry with the Australian Conservation Foundation.

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SECTION 1: Reducing the cost of meeting emissions targets

Addressing climate change creates a broad range of economic, social, and environmental costs and opportunities. Whilst costs are inevitably incurred in the transition to a zero carbon economy, it is equally important to account for the significant and escalating costs of inaction. Similarly, the economic opportunities created by the transition to new green industries provide an important counterbalance to the costs incurred from the shift away from fossil fuels and other emissions intensive industries. The interim report does not appear to have adequately considered the broader cost-benefit analyses that need to underpin investments in climate action.

WWF-Australia provides the following perspectives to the draft recommendations:

Productivity Commission Draft Recommendation	WWF perspective	Explanation
Draft recommendation 1.1 Reducing emissions in the electricity sector after 2030 Governments should prioritise introducing enduring, broad-based market settings in the electricity sector beyond 2030. The settings should: • create nationally consistent incentives for lowest-cost clean energy, irrespective of generation technology or jurisdiction • embed investment incentives to ensure reliability and system security are maintained. Governments should also phase out any jurisdiction- and technology-specific incentives over time	Dependent	The government has laid strong foundations for achieving net zero, now implementation must accelerate. Despite these positive developments, emissions reduction has stalled in recent years¹ and the pace of renewable energy roll-out is not on track to meet the 82% renewables target by 2030. Additional measures are urgently needed to complement the foundational steps and unlock a rapid, socially just and ecologically sound transition. Carbon pricing remains the most effective form of policy enabler, but it is also critical to redirect fossil fuel subsidies to green industries, expand and strengthen the Safeguard Mechanism and provide ongoing support for renewables and transmission upgrades WWF-Australia cautions on the principle identified in the interim report “Ensure that policies do not preference some emissions-reduction options or technologies over others”. The report suggests that “emitters should get the same benefit from reducing emissions regardless of how they do it. If policies favour some lower-carbon options over others, emitters may pursue these because they attract a large reward, not because they are the cheapest way to reduce emissions”. This principle fails to acknowledge that certain abatement pathways can lead to ‘technological lock in’ and may not be the most appropriate medium to long term climate solution. For example, the use of Carbon Capture and Storage (CCS) technologies applied in non hard to abate sectors that have viable renewable alternatives or investments into gas infrastructure can lock in ongoing fossil fuel use, resulting in less overall emissions benefit. Therefore, it is important that government investments prioritise

¹ [DCCFEW](#) (August 2025)

		technologies that enable more genuine, long term climate solutions.
Draft recommendation 1.2 The Safeguard Mechanism should cover more industrial facilities and carbon leakage provisions should be improved	Agree	The Safeguard Mechanism is due for review in 2026. WWF-Australia supports a strengthening of the Safeguard Mechanism to capture more facilities. Industrial decarbonisation remains modest: the first year of the reformed Safeguard Mechanism delivered only limited emissions reductions, with most compliance achieved through carbon credit purchases rather than structural on-site abatement, as emissions caps remain high and the price of offsets too low to overcome green premiums ^{2 3}. In addition, the safeguard mechanism does not capture scope 3 emissions, nor address emissions derived from Australia's expanding fossil fuel exports. Australia needs more than the Safeguard Mechanism to adequately drive down emissions. WWF-Australia calls for stronger Safeguard Mechanism settings, reform of fossil fuel subsidies with savings redirected to concessional finance for abatement technologies, and targeted policies to cut methane and accelerate clean solutions in key sectors such as heavy transport, agriculture and buildings.
Draft recommendation 1.3 Introduce an emissions-reduction incentive for heavy vehicles and phase out policy overlaps for light vehicles	Disagree	Australia needs greater incentives to address emissions reductions in heavy transport. However, it is far too early to phase out policies for light vehicles and these should extend to 2030. Transport emissions are rising, and incentives towards electrifying passenger light vehicles is a significant abatement opportunity to help meet 2030 and 2035 targets. Reducing these incentives too early will slow the transition.

In addition to the above, WWF-Australia makes the following additional recommendations:

1. Increase support for green export industries

To counterbalance the economic costs of the transition away from fossil fuels, Australia can significantly benefit from greater investment into green export industries. While the Australian Government has committed significant funding through the National Reconstruction Fund (NRF), Rewiring the Nation (RTN), and Future Made in Australia (FMIA) initiatives, most of these funds remain largely undeployed, underscoring a critical execution risk⁴. Final investment decisions (FID) for many large-scale clean infrastructure and clean export projects lag, while key players pull out of important hydrogen projects, citing limited local demand largely due to a lack of buyers willing to pay the green premium⁵. The Government should play a much more active role in

² [Anthesis Group](#) (June 2025)

³ [Grattan Institute](#) (August 2025)

⁴ [Climate Capital Forum](#) (July 2025)

⁵ [Bloomberg](#) (July 2025)

supporting low cost inputs to underpin supply and facilitate demand. This should include providing time-bound financial support to bridge the green premium and de-risk investment, introducing financial support mechanisms for critical clean export opportunities not sufficiently covered in the FMIA package (such as production credits or contract for difference mechanisms – see WWF-Australia Recommendation 3), and enabling access to concessional finance by broadening the mandate of the Clean Energy Finance Corporation (CEFC) for clean exports opportunities⁶.

2. Commit to a fossil fuel phase out:

The Federal Government has continued to approve fossil fuel projects, including the conditional extension of the North West Shelf gas project to 2070, one of its first major decisions post-election⁷. This move stands in direct contrast to the International Energy Agency's Net Zero by 2050 scenario, which finds that limiting warming to 1.5°C requires no new coal mines, mine extensions, or long-lead-time oil and gas developments beyond those already approved as of 2021⁸. Australia also has the largest pipeline of new coal projects, and within five years, if those projects are permitted to proceed, Australia's exported fossil fuel emissions will be 3.3 times larger than its domestic emissions⁹. Without clear commitments to phase out fossil fuels, Australia risks missing its net zero commitments and the opportunity to lead in the global clean energy economy. Reports from Future Group¹⁰, EY¹¹ and Climate Council¹² show that high ambition is not only feasible, but economically and scientifically preferable.

A clear and transparent timeline and plan to phase out fossil fuels will help to manage transition risks and economic costs. This should also ensure financial incentives are realigned and redirected away from fossil fuels. Fuel Tax Credits (FTCs) and other measures artificially lower the cost of fossil fuel use in industry, increasing emissions while perpetuating an uneven playing field for electrification and productivity-enhancing innovation. A recent study from Climate Energy Finance points out that FTCs are a growing budget expense (\$11 billion annually) that undermines the Safeguard Mechanism (subsidising 815 MtCO₂e to date) and disincentivises clean investment¹³.

3. Introduce a Carbon Contract for Difference scheme to complement and support the Safeguard Mechanism

Carbon Contracts for Difference: To unlock industrial abatement at scale, Australia needs an instrument that provides long-term price certainty for carbon abatement while complementing the Safeguard Mechanism. A Carbon Contract for Difference (CCfD) can serve this purpose. A CCfD is a financial contract where the government guarantees a minimum price (strike price) for carbon credits generated through industrial abatement. It would:

- o Underwrite the value of Safeguard Mechanism Credits (SMCs) over a defined period (e.g., 7–10 years), enabling firms to forecast revenue.
- o Function as a top-up mechanism: if the market price of SMCs falls below the strike price, the government pays the difference; if the price rises above it, the firm repays the difference.
- o Enable projects to raise debt and equity finance with improved certainty.
- o Embed ambition - higher market prices reduce the need for government support.
- o Optionally include a credit purchase clause to build the government's carbon credit register.

⁶ [Climate Capital Forum](#) (July 2025)

⁷ [ABC News](#) (May 2025)

⁸ [International Energy Agency](#) (May 2025)

⁹ [Fossil fuel non-proliferation treaty](#) (March 2025)

¹⁰ [Future Group & Deloitte](#) (August 2025)

¹¹ [EY](#) (July 2025)

¹² [Climate Council](#) (August 2025)

¹³ [Climate Energy Finance](#) (August 2025)

Similar mechanisms have been successfully deployed in the EU (e.g., Germany's CCfD for green steel and chemicals) and mirrors the logic of past Australian mechanisms like Feed-In Tariffs that drove renewable energy investments and long-term contracting via ARENA.

In the UK, CCfDs have been used for over a decade to support renewable energy deployment by guaranteeing a fixed electricity price over 15-year periods. Decreasing price risk reduces the cost of capital and crowds in private sector finance. More recently, in October 2024, Germany awarded 15 CCfDs to emission intensive facilities operating under the EU ETS. These contracts provide a guaranteed carbon price aligned with the EU ETS, removing downside risk of low carbon investments created from carbon price volatility. This illustrates the growing credibility of CCfDs as a decarbonisation instrument for hard-to-abate sectors.

Given the lack of progress in abatement for the hard-to-decarbonise industry sector, a CCfD is a logical policy tool that would support Australia's ambitions to compete in a decarbonising global economy.

4. Support initiatives such as the Materials and Embodied Carbon Leaders' Alliance (MECLA)

The [Materials and Embodied Carbon Leaders' Alliance](https://mecla.org.au/about/) (MECLA) is unique collaboration that works across the building and construction industry supply chain to accelerate decarbonisation across the built environment sector, which accounts for around one-quarter of Australia's greenhouse emissions¹⁴.

Bringing together more than 190 partner organisations through a pre-competitive model, MECLA helps drive market transition across industry and government by:

1. Demonstrating the demand and activating the supply of materials which meet the needs of net zero carbon goals.
2. Defining a best practice embodied carbon evaluation framework.
3. Knowledge sharing through best practice education, case studies, myth-busting, demonstrations, and supporting innovation in materials and processes as part of a precompetitive approach.
4. Developing common language for design specifications, procurement guidelines and tendering criteria as standard practice for government agencies and companies.
5. Helping to manage industry's climate transition risks, risks associated with adopting innovative materials and the required skills development while supporting materials such as steel, cement and concrete, and aluminium to reduce their carbon intensity and giving visibility to other low carbon and innovative materials.

With funding mainly from State and Territory governments, private sector and philanthropy, MECLA has played a unique role in uniting stakeholders across the construction and buildings value chain to collaborate on decarbonisation. It has successfully influenced leadership and early adopters within industry and government and is now shifting focus to engage the *early majority*.

The *early majority* refers to a group within the market adoption curve who are more cautious and pragmatic than early adopters. Unlike early adopters—who are motivated by ambition, innovation, and leadership—the early majority prefers solutions that are proven, low-risk, and scalable. They typically wait until a new approach has demonstrated success before committing. To effectively reach this segment, MECLA must evolve its strategies to drive widespread uptake. For the early majority, we need to prioritise:

- Practical implementation tools
- Strong business case development
- Procurement alignment
- Accessible training packages
- Clear, actionable guidance that supports consistent adoption across projects

¹⁴ <https://mecla.org.au/about/> (September 2025)

Federal government investment to support the continuation and expansion of MECLA and similar industry-supporting initiatives will help the 'early majority' businesses who need more assistance and capability support to play their part in Australia's net zero economy.

SECTION 2: Speeding up approvals

The roll out of renewable energy needs to be done in a way that is "fast, ecologically sound, and just". This means building at the speed required to help stabilise global average temperatures to 1.5°C, in ways that protect biodiversity and achieve a fair and resilient transition for local communities and the broader region. The transition will never be fast enough if it does not also work for people and nature. Similarly, there can be no ecologically sound and just transition if it is too slow to address climate change impacts.

EPBC reforms are fundamental to addressing delays in environmental assessments. However, it is important to note that projects that are currently considered 'in the queue' represent a wide diversity of scales and impacts on Matters of National Environmental Significance (MNES). Any efforts to improve speed of decision making needs to coincide with efforts to improve environmental outcomes under the Act and recognise that some projects experiencing delays are due to the significance of their impacts on nature. By far the quickest way to avoid lengthy assessment timelines is to locate and plan projects so they avoid impacts on MNES.

The following table explains our perspectives on the draft recommendations proposed by the Productivity Commission:

Productivity Commission Recommendation	WWF perspective	Explanation
2.1 Reform national environmental laws	Agree	WWF agrees with the Productivity Commission that reforming Australia's environmental laws is a fundamental priority. This needs to be done in a way that not improves the speed of decision making but also strengthens protections for nature.
Introduce national environmental standards	Agree	National environmental standards help to create greater certainty for developers and will likely lead to improved environmental decision making. In instances where projects have some environmental impact, standards will help decision makers make consistent decisions about the significance of an impact and reduce some of the subjectivity to assessments. The introduction of clear national environmental standards along with clear definitions of unacceptable impact will help to improve the speed of decision making.
Facilitate regional planning, particularly within renewable energy zones, with stricter statutory deadlines for assessing projects in 'go zones'	Agree with caveats	Renewable energy zone level planning should seek to align with and support existing processes, often at a state level, to help guide where projects go and where to target protection and restoration efforts. For example, many NRM bodies, state agencies and even local governments have undertaken similar land use planning projects to identify and map areas that should be constrained from development. The recent NSW Central West Orana conservation strategy is a useful example of a process designed to identify key conservation priorities in a region where protection and restoration will improve

		connectivity, resilience and biodiversity values¹⁵. These processes should further involve input from local communities and also help to identify positive actions beyond offsetting that can be part of environmental benefit sharing programs. These processes are critical to address cumulative impacts and guide siting decisions but also identify new strategic investments in grid infrastructure to encourage development in areas where there is less conflict with high conservation, cultural or agricultural values.
Provide accessible, high-quality information about the environment and past assessment decisions	Agree	Data sharing is critical to improving environmental assessments because it enables cumulative impact analysis, reduces duplication, and builds trust in decision-making. When environmental data—such as biodiversity surveys, water quality metrics, and land use maps—is siloed across jurisdictions or companies, assessments become fragmented and inefficient. Shared platforms and standards allow for consistent baselines, faster approvals, and better protection of nature. Collaborative data models not only streamline regulatory processes but also empower communities and developers with transparent, evidence-based insights. Past assessment decisions should also show how projects that are well sited and designed with the environment in mind are moving through the EPBC process more quickly. WWF-Australia has analysed recent renewable energy projects that have been referred to the EPBC for a decision and we have observed that well sited projects on previously cleared land with minimal to no impact on matters of national environmental significance receive timely decisions under 30 days.
Make offsetting arrangements more efficient, such as by enabling developers to meet their offset obligations by contributing to an Australian Government offsets fund	Dependent	We do not agree that developers should be able to meet their offset obligations by paying cash in lieu of an offset and where the risk is passed from private to public. This risks developers paying into a fund for an offset that can simply not be met or found, or is not established until long after the impact has occurred. However, we are not opposed to a credit based scheme or other mechanism where the Australian Government (or other entity) facilitates provision of offsets and can aggregate these in strategic locations for improved environmental benefit. In this instance the developer could still be effectively paying into a fund, however, this would be on the

¹⁵ <https://www.environment.nsw.gov.au/publications/central-west-orana-conservation-investment-strategy>

		basis that there is a pool of offset credits available to purchase. Irrespective of how offsets are secured – by the proponent or by a Government-led scheme – it is critical that the same principles apply including that: 1. Irreplaceable biodiversity cannot be offset and must be avoided. 2. Offsets must be secured, and gains start to be realised before impacts commence. 3. Offsets must be high integrity, like for like and deliver an absolute increase in the biodiversity impacted (ie “net gain”). Similarly, this needs to be undertaken in conjunction with stronger requirements to follow the mitigation hierarchy where offsetting is a last resort. Aggregating money into a regional offsets fund from developers in advance of development occurring (e.g. through a regional plan) and the idea of advance offsetting by a single developer, are other mechanisms to accelerate development and achieve better environmental outcomes. As above, the same core principles need to apply to whatever mechanism is utilised.
Set clear expectations about engagement with local communities and Aboriginal and Torres Strait Islander people.	Agree	Clear expectations around engagement with local communities and Aboriginal and Torres Strait Islander peoples are essential to ensure renewable energy and environmental projects are inclusive, respectful, and deliver lasting benefits. We support the proposed development of a First Nations Engagement Standard that can apply to the amended EPBC Act but also work across other legislation. Embedding principles such as Free, Prior and Informed Consent (FPIC), Indigenous-led governance, and co-designed benefit-sharing frameworks helps build trust, reduce conflict, and unlock opportunities for shared prosperity. These approaches are not only best practice - they are foundational to a just and nature-positive transition. It is also important to distinguish between community engagement and benefit sharing, and strive for best practice and consistency across both.
Recommendation 2.2: Set up a specialist ‘strike team’ for priority projects The Department of Climate Change, Energy, the Environment and Water should set up a strike team focused on priority renewable energy projects.	Agree with caveats	WWF supports efforts to adequately fund the capacity and capability of the Department to improve decision making timeframes for renewable energy projects. How this is done though is important (recommendations follow).

Be adequately resourced to ensure all priority projects can be efficiently assessed under the Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Agree	WWF has previously advocated for a 'concierge' type service that prioritises renewable energy projects within the EPBC portal. We support stronger resourcing of the Department to ensure priority projects are able to be assessed more quickly.
Integrate environmental and clean energy expertise	Agree with caveats	Most of the referrals of projects to the EPBC Act require environmental expertise as it is about evaluating impact of infrastructure upon Matters of National Environmental Significance. Specific knowledge of best practice mitigation options for renewable energy projects (eg. curtailment, bird/bat management, bubble curtains etc.) would support appropriate and realistic conditions being placed on projects with residual impacts.
Be issued with clear expectations, tools and escalation procedures	Agree with caveats	This will help reduce ambiguity, improve consistency across jurisdictions, and ensure that environmental assessments and approvals are both rigorous and timely
Work with state and territory counterparts to reduce duplication and share information and expertise	Agree	This will help reduce ambiguity, improve consistency across jurisdictions, and ensure that environmental assessments and approvals are both rigorous and timely. Similarly national environmental standards will help to improve consistency across jurisdictions.
Recommendation 2.3: The Australian Government should establish an independent Clean Energy Coordinator-General for priority renewable energy projects	Dependent	WWF-Australia support for this recommendation is highly dependent on the nature and remit of the role. We support the idea of this role if it is largely about improving administrative processes and not a decision making role with call in or exemption powers. State and territory based experiences of Coordinators General have presented issues related to transparency and accountability, especially where powers of decision making are concentrated in the hands of an unelected official ¹⁶ . This role also needs to be supportive of the role of an independent Environmental Protection Agency as part of the broader EPBC reforms and not detract from that.
Track progress of all approvals needed to start construction	Agree	This may help to identify projects that are experiencing significant delays, and also understand overall pace of the renewable roll out and where and why bottlenecks are occurring.
Investigate and help resolve delays	Dependent	The interaction of this role with staff tasked with environmental assessments needs careful consideration to maintain independence and transparency. Certain projects may be experiencing delays due to a host of reasons including significant environmental impacts that require further information. It is important that this role does not lead to

¹⁶ <https://www.edo.org.au/wp-content/uploads/2024/11/Briefing-Note-Territory-Coordinator-Consultation-Paper.pdf>

		pressure to make quicker decisions that override environmental considerations. However, depending on the structure of the role this could help to identify other issues that could help address delays such as broader environmental data gaps, or lack of administrative capacity.
Report on progress to the Energy and Climate Change Ministerial Council	Dependent	Regular progress on EPBC decision making can help to ensure administrative bottlenecks are being identified and managed. However, independence needs to be maintained from political pressure from the ECCC to improve speed of decisions. It is critical that there are no 'step in' or 'exemption' powers held within the role of the Coordinator-General.
Provide advice based on objective criteria about the composition of the Renewable Energy Priority List	Dependent	Greater incentives could be provided to projects to avoid and minimise environmental impacts. Projects that can demonstrate they have been sited in areas of low conservation value and have minimal to no residual impact on Matters of Environmental Significance should also be prioritised.
Recommendation 2.4: Consider the energy transition in approval decisions The Environment Protection and Biodiversity Conservation Act 1999 (Cth) should be amended to require the minister to consider the needs of the energy transition when deciding whether to approve an energy project that will have a significant impact on a matter of national environmental significance.	Dependent	WWF Australia supports the idea of climate considerations being a key component of EPBC reforms, to recognise both the impact and benefit of projects towards climate goals. However, inclusion of only climate benefit without its counterfactual consideration of climate impact should be avoided. Similarly, consideration of the energy transition as part of a ministerial decision under the EPBC will potentially lead to poor outcomes. The inclusion of national environmental standards and definitions of unacceptable impacts will instead be a higher priority to help decision makers make a call as to whether a projects contribution to climate outcomes outweighs its residual environmental impact. There is also a risk that other non renewable energy projects are used in this way, eg. gas projects or CCS projects that may lead to some emissions reductions but have significant environmental and climate impacts.

In addition to the above, WWF-Australia makes the following additional recommendations:

1. **An Independent Environmental Protection Agency is a critical component of EPBC reforms**
WWF-Australia strongly supports the establishment of an independent Environment Protection Agency (EPA) as a cornerstone of effective environmental law reform. The current system under the EPBC Act suffers from weak compliance and enforcement, excessive ministerial discretion, and a lack of public trust. An independent EPA would address these issues by acting as a professional, science-based regulator with the authority to make decisions on environmental assessments, approvals, compliance, and enforcement - free from political interference. WWF-Australia advocates for the EPA to be governed by an independent, skills-based board that appoints the CEO, ensuring transparency, accountability, and integrity in decision-making. This structure is essential to delivering consistent,

outcomes-based regulation that protects Matters of National Environmental Significance (MNES) and restores public confidence in Australia's environmental governance

2. Incentivising best practice:

Greater incentives need to be explored to guide the energy industry towards best practice environmental and social/cultural outcomes. Broader strategies could include integrating a best practice threshold test for environmental assessments that support decision making beyond impact. This could consider voluntary measures developers are taking to adopt a precautionary approach to environmental impact such as applying the latest mitigation measures to projects. It could also identify projects that are going beyond regulatory compliance and delivering significant environmental benefits to a region that goes beyond offsetting. Where possible projects should also be encouraged to maximise integrated land use to reduce social and cultural conflicts and maximise opportunities for nature regeneration.

SECTION 3: Addressing barriers to private investment in adaptation

WWF-Australia agrees with the Productivity Commission's views on the need to improve Australia's housing stock in the face of rising climate change impacts and supports the following recommendations in the interim report:

Productivity Commission draft recommendations	WWF perspective
Draft recommendation 3.1 Set up a climate risk information database covering all climate hazards	Agree
Draft recommendation 3.2 Develop a nationally consistent climate resilience rating system for housing	Agree
Draft recommendation 3.3 Governments should agree on a series of actions to improve housing resilience over time	Agree
Draft recommendation 3.4 Give the Climate Change Authority responsibility for monitoring, evaluation and learning regarding adaptation policy	Agree

However, the interim report falls short of acknowledging the significant role that the Federal Government can take beyond information sharing and development of rating tools. We therefore recommend the following measures in addition to those identified in the interim report:

Improve the Federal Governments economic planning for climate adaptation

Climate and nature-related risks threaten economic stability, yet the *Budgeting for Natural Disasters* report found a \$6 billion gap in disaster budgeting¹⁷. Natural disasters cost Australia an estimated \$38 billion per year, and this amount is expected to rise to \$73 billion per year by 2060, assuming a low emissions scenario¹⁸. Failing to integrate these risks into economic planning will deepen fiscal pressures and undermine national prosperity, whereas embedding them into budget lines would improve transparency and incentivise investment in

¹⁷ CPD (April 2025)

¹⁸ Deloitte (2021)

resilience. Such investment not only protects lives and communities but also reduces the long-term financial burden on government and society.

Provide adequate adaptation funding to local governments and communities

Adaptation is inherently local and contextual to Australian communities, supporting local and state governments is therefore critical. Australia's 537 councils are at the frontline of climate adaptation and are already experiencing the burden of climate impacts. According to the Australian Local Government Authority, funding cycles within the Australian Government's Disaster Ready Fund are significantly oversubscribed, with most of the funding directed toward recovery efforts, not readiness¹⁹. According to the National Emergency Management Agency (NEMA), every dollar invested in disaster risk reduction provides a \$9.60 return on investment²⁰. National Adaptation Plans (NAP) should set out clear roles/responsibilities and equitable funding structures to recognise the important role local governments and communities play in addressing adaptation challenges.

Australians need resilient neighbourhoods, not just houses. Local governments and communities should be supported by the Federal Government to improve adaptation and resilience measures. Investments at the neighbourhood scale can help to address equity and deliver multiple co-benefits. For example, stronger investments into green infrastructure, water sensitive urban design, and nature-based solutions across public and private tenures can help to reduce exposure to flash flooding and reduce urban heat island effects whilst contributing to improved mental health and wellbeing. Funding can also help to address the premium gap in many adaptation solutions and ensure that any infrastructure upgrades are improving climate readiness.

Improving First Nations housing stock should be a national adaptation priority, particularly for remote communities. Energy efficiency and renewable energy are a key opportunity for investment that will deliver climate outcomes by reducing the need for diesel generators, health outcomes through improved thermal comfort and air quality, and adaptation outcomes through improved energy access during extreme events. The First Nations Clean Energy Network has identified the following measures that could be part of a national focus on improving Indigenous energy outcomes in housing stock²¹:

- **Phase out gas** in First Nations community / social housing by 2030.
- Leverage partnerships to **conduct comprehensive housing assessments** of existing stock to identify deficiencies, prioritise upgrades and address energy inefficiencies in First Nations housing stock.
- **Directly invest in energy audits and deep and accelerated upgrades** for First Nations housing and utilise this investment to (i) support new First Nations business development and local manufacturing; and (ii) support training and job creation with First Nations people and in First Nations communities.
- **Develop a "First Nations Electrification Program"** (which should also include financial incentives and affordable financing, including grants) which would be designed to support fuel shifting to electric appliances (e.g. replace existing inefficient heating and cooling systems with efficient reverse cycle air conditions; replace inefficient hot water systems with heat pump hot water systems; replace gas cooking systems with efficient induction electrical systems; plan for electrification of transport systems including electric vehicles, etc.)
- **Establish a funding pool to be called "Renewable Energy Funding for First Nations Housing"** the purpose of which is to install renewable energy technologies (like solar and battery storage) on First

¹⁹ ALGA (April 2024)

²⁰ https://www.nema.gov.au/sites/default/files/2024-08/28605%20NEMA%20Second%20Action%20Plan_V10_A_1.pdf

²¹ https://www.firstnationscleanenergy.org.au/getting_homes_energy_efficient_for_affordable_power

Nations housing - noting the positive impact of rooftop solar on reducing electricity costs and improving energy security for First Nations households.

- **Mandatory energy performance reporting and disclosure** requirements for any Australian Government funding directed towards First nations housing - requirement to (a) report on energy performance of portfolios and (b) measure and address financed emissions in First Nations housing portfolios.