



energy efficiency
COUNCIL

**Energy Efficiency Council submission to the
Climate Change Authority's 2023 Issues Paper**

30 June 2023

Summary

The Energy Efficiency Council (EEC) welcomes the opportunity to make a submission to the Authority's 2023 issues paper. The Council believes there is a stronger role for energy efficiency and energy performance to play in Australia's journey to net zero, and that a modest increase in policy ambition in these areas could unlock significant additional abatement.

The EEC's comments in this submission relate to the four general areas of consultation:

Setting targets:

As the legislated net zero by 2050 target now clearly establishes the minimum acceptable emissions trajectory, greater consideration should be given to minimising cumulative emissions along the journey to net zero. Energy efficiency and energy performance provide low-cost opportunities to reduce emissions quickly, lowering cumulative emissions and reducing the extent of overshoot of a 1.5°C target. Every tonne of emissions saved through energy efficiency today reduces cumulative emissions by 7 tonnes by 2030 – insuring against slower-than expected delivery of technology or renewable energy infrastructure. Targets and policies should preference domestic decarbonisation, to ensure that Australia is compatible with a global net zero economy.

Measuring progress

Determining an appropriate set of energy use indicators – not just those related to energy supply – is important for gaining a granular understanding of the progress of the economy towards net zero. While supply-side aggregates are useful, actual and substantial reductions in energy-related emissions will rely on changes to energy use, as well as the source of energy supply, and require a nuanced understanding of the whole energy system.

Sectoral decarbonisation targets, plans and progress measurement will also be important to ensuring that actual economic decarbonisation is occurring, rather than artefacts from broader factors. Progress of individual economic sectors against targets will inform whether policies and progress to effect net zero are working, and whether policy ambition must be increased.

NGERS review:

The NGERS framework is useful, well understood and a vital tool in ensuring we understand Australia's emissions. However, opportunities exist to leverage the framework to increase the engagement of Australian business with energy usage and emissions, as well as providing incentives to business to effectively manage their emissions. Introducing net zero transition planning and disclosure into Australian organisations will also be an important way to ensure Australia has effectively engaged with the risks and opportunities of the transition to net zero, and it may be necessary to use the NGERS framework to implement part of it.

CFI review:

To date, Australia has heavily relied on the land sector for offsets. However, as we progress towards net zero, it would be judicious to broaden the base of decarbonisation that is incentivised through the CFI/ERF. As the ERF moves away from being a program based on government procurement, opportunities exist to reduce barriers to the participation of energy efficiency and energy performance improvements in the ERF. This would have the effect of both driving domestic decarbonisation, and reducing the broader ERF portfolio risks, while providing high quality, genuine and additional abatement.

1. Targets

1.1 Shift focus to reducing cumulative emissions.

As the Commonwealth has now committed Australia – in law - to a target of achieving net zero emissions by 2050, the end point of our emissions reduction trajectory is known with clarity. Australia’s current emissions reduction trajectory describes a roughly linear trajectory between now and net zero by 2050:

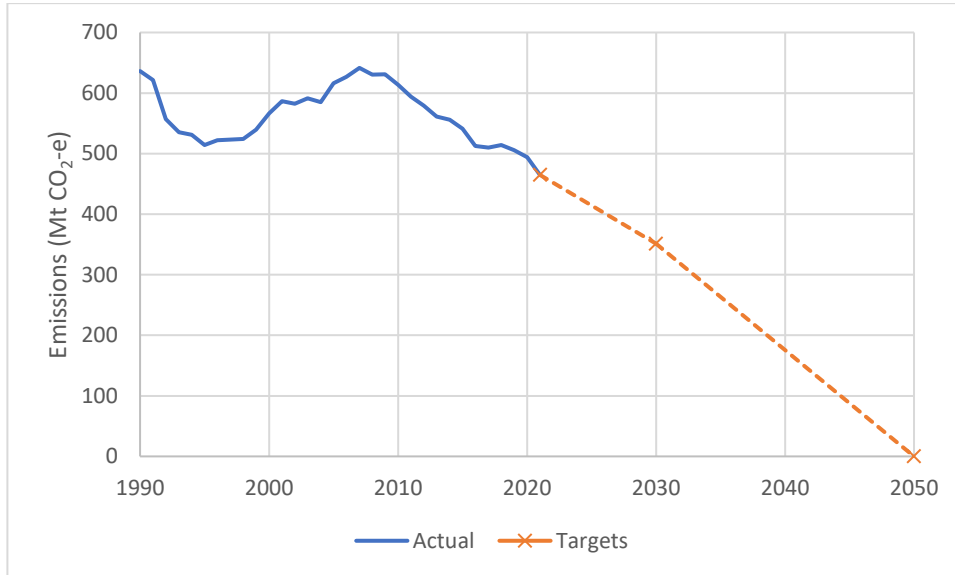


Figure 1 - Australia's emissions reduction trajectory

This is the minimum necessary level of ambition in addressing climate change, and while it is likely that significant efforts will be required to achieve this target, realising opportunities for earlier emissions reduction will minimise the overall cumulative emissions added to the atmosphere. Even where some harder-to-abate sectors take a longer time to abate, reducing energy-related emissions as fast as possible will have the effect of reducing Australia’s share of global emissions, and preserve as much as possible of the remaining carbon budget. This approach will give the climate system the greatest chance of keeping to a 1.5°C warming trajectory – and every cumulative tonne of emissions saved now reduces the amount of overshoot that is likely.

1.1.1 Taking advantage of every lever at our disposal

Around 80 per cent of Australia’s emissions are energy related. At present, our decarbonisation strategy for energy relies heavily on renewable electricity and land-based sequestration. Electrification of transport is likely to present the next major wave of abatement.

However, a much wider range of abatement is available at low cost (or often negative cost) with demonstrated technologies; capitalising on these opportunities now helps reduce cumulative emissions and insures against the risk of non-delivery of less mature technologies.

Recently modelling by Northmore Gordon for the Energy Efficiency Council and ANZ has demonstrated that while Australia is likely to rely heavily on carbon removals and renewable electricity, techniques like energy efficiency and electrification have substantial untapped potential. Energy efficiency techniques are available immediately, and electrification is rapidly becoming applicable to a

wider range of activities. Electrification and energy efficiency should be deployed holistically, as high-quality electrification bring substantial energy efficiency benefits.

Increasing the rate of deployment of energy efficiency now provides the opportunity to realise emissions reductions immediately, often at a cost saving. Once the multiple benefits of energy efficiency are taken into account, the broader costs of abatement via energy efficiency are overwhelmingly negative.

At present, these technologies play a relatively small role under business-as-usual policy settings out to 2050, with carbon removals and renewable electricity required to shoulder most of the burden. Ramping up renewable electricity production is likely to be challenging both in terms of supply chain and social licence issues, and finding carbon removals at the required scale may not be possible:

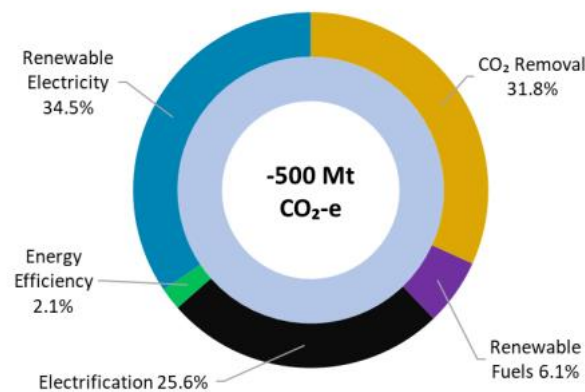


Figure 2 - Abatement in 2050 using BAU policy settings. Source: [Northmore Gordon](#)

However, with more ambitious policies, energy efficiency and electrification can undertake more of the abatement task using currently available and known technologies:

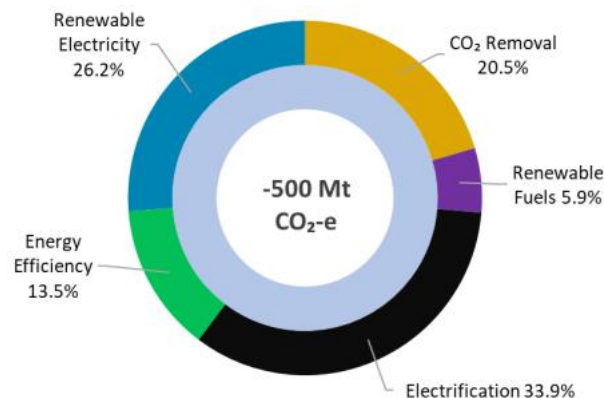


Figure 3 - Abatement in 2050 under an expanded energy efficiency and electrification scenario. Source: [Northmore Gordon](#)

Modest policy support for energy efficiency and electrification is likely to substantially reduce our reliance on offsets, and will promote efficient, net zero compatible production. The contribution from energy efficiency and electrification in these scenarios is based on known (and deployable) technologies.

By making the greatest use of all the decarbonisation levers available to us, it is possible to expedite the transition and facilitate a lower burden on the climate.

1.2 Consider sectoral targets

It is clear that some sectors are likely to be able to decarbonise faster than others. The buildings sector, for instance, is likely to be able to decarbonise relatively rapidly using existing electrification technologies, coupled to renewable electricity generation. Consideration should be given to provide clear signals to these sectors to decarbonise as rapidly as possible to give time to harder-to-abate sectors to decarbonise when suitable technologies become available.

Northmore Gordon’s analysis shows that in a policy scenario characterised by enhanced energy efficiency and high electrification, some sectors have a clear pathway to decarbonisation using known technologies. The residential and commercial and services sectors can take advantage of efficient electrification to eliminate their emissions, with electrification and energy efficiency substantially reducing emissions across mining, manufacturing, and transport.

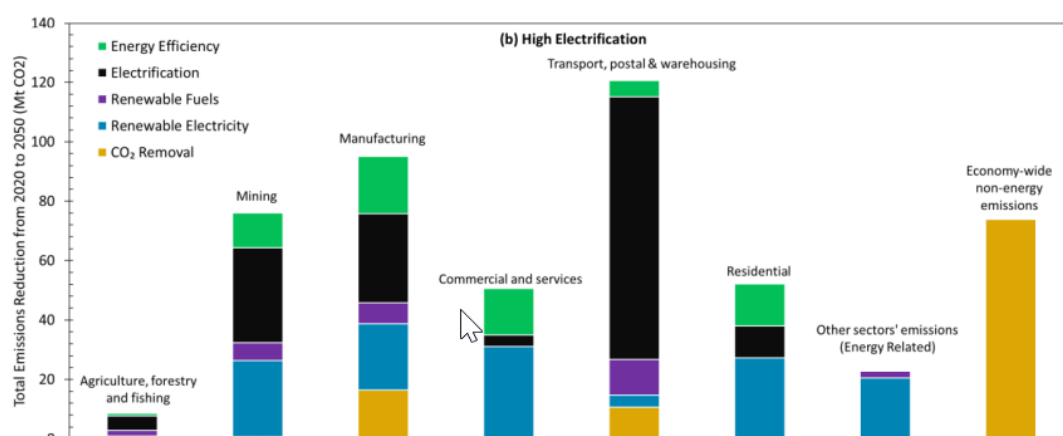


Figure 4 - Decarbonisation at 2050 by ANZSIC sector in an enhanced energy efficiency and electrification scenario

It would be appropriate to consider differentiating Australia’s next emissions reduction target by sector to facilitate policy development to accelerate abatement in those sectors able to decarbonise quickly. Sectoral targets could be supported by sectoral decarbonisation plans, which could coordinate action across government and the private sector, as has been done in international jurisdictions.

1.3 Targets and policy must prioritise domestic decarbonisation

In the transition to a net zero economy, continued reliance on offsets is not a sustainable path. Policies should encourage actual, substantial reductions in emissions within Australia, and within emitting sectors. Relying on offsets or removals to facilitate the bulk of the emissions reduction task – which has been a core part of Australia’s emissions policy to date – presents significant risks both to the achievement of targets, and also to the ongoing competitiveness of Australian business. It is likely that businesses that have been able to reduce their own emissions will enjoy a competitive advantage in a world that will increasingly value low-emissions goods and services, and deferring the task of decarbonisation will leave Australia ill-prepared to prosper in a global net zero economy.

It is for this reason that the EEC recommends that Australia's targets are set based on potential for ambitious domestic, and do not encompass international abatement.

2. Assessing progress

2.1 Energy system transition progress

In respect of energy-related emissions, current assessment of progress tends to rely heavily on supply-side indicators – emissions intensity of energy production, primary energy demand, penetration of renewable energy production.

While these indicators are useful, a more holistic approach would take energy demand more strongly into account. As more than three-quarters of Australia's gross emissions are energy-related, identifying indicators of energy use could provide useful leading indicators of progress in the transition to net zero.

Indicators of energy demand and energy use – including how energy is being used by different economic sectors – have the potential to inform whether general emissions are likely to rise or fall. For example, an increase in electricity in residential settings at the same time as reductions in natural gas and petrol usage could indicate progress in electrification of residential and transport energy use. Similarly, indicators of trade in certain products and services (such as insulation or solar panels) could be predictors of emissions decline, whereas increased sales of natural gas appliances could suggest an upcoming increase in emissions.

Overall, it is clear that more nuanced understanding of the energy system is important in evaluating whether policies and programs are effective in reducing emissions. Understanding how, when and where energy is used – not just how much – will be critical to effective design of interventions to drive down emissions.

2.2 Sectoral targets, plans and progress

As discussed earlier, due to the uneven nature of decarbonisation across the economy, it is important that those sectors that can decarbonise relatively quickly are given clear signals to do so. This will allow harder-to-abate sectors time to develop and implement their decarbonisation strategy as technological development permits. The EEC suggests that planning to achieve net zero should differentiate targets between sectors to encourage decarbonisation as rapidly as is possible within each sector.

Sectoral targets are an important tool for businesses within each economic sector to better understand the expected future emissions profile for their sector and enable businesses to benchmark their performance against peers. Sectoral targets allow a common but differentiated responsibility and make the most efficient use of resources directed to the decarbonisation task.

Other jurisdictions are more advanced in setting a sectoral approach for each sector. For example, Ireland has set reductions for individual sectors varying between 25-75% reduction by 2030:

| Sector | Reduction | 2018 * | 2030 ceiling * |
|-----------------------------------|------------------|---------------------------|----------------------------|
| Electricity | 75% | 10.5 MtCO ₂ eq | 3 MtCO ₂ eq |
| Transport | 50% | 12 MtCO ₂ eq | 6 MtCO ₂ eq |
| Buildings (Commercial and Public) | 45% | 2 MtCO ₂ eq | 1 MtCO ₂ eq |
| Buildings (Residential) | 40% | 7 MtCO ₂ eq | 4 MtCO ₂ eq |
| Industry | 35% | 7 MtCO ₂ eq | 4 MtCO ₂ eq |
| Agriculture | 25% | 23 MtCO ₂ eq | 17.25 MtCO ₂ eq |
| Other** | 50% | 2 MtCO ₂ eq | 1 MtCO ₂ eq |

Source: Government of Ireland, [Government announces sectoral emissions ceilings, setting Ireland on a pathway to turn the tide on climate change](#), media release, 28 July 2022

The Australian Government’s target already foreshadows a sectoral target approach, with a goal of achieving 82 per cent renewable energy in the National Electricity Market by 2030 – a case of substantial emissions reduction in a sector able to decarbonise relatively quickly.

In this context, the EEC recommends that the Minister and Parliament should be advised on appropriate decarbonisation targets for each sector, based on the availability of technically and economically feasible pathways for emissions reduction in each economic sector. Pursuing the greatest possible decarbonisation in each sector will support achievement of national targets and provide the greatest possible chance of identifying and pursuing opportunities to increase the ambition of economy-wide climate action.

At this stage, the EEC recommends that advisory sectoral targets are provided to the Minister and Parliament. This will assist in coordination across government – providing greater clarity about where government effort and resources should be prioritised to support achieving sectoral (and national) targets.

The Authority could have a strong role in both advising of appropriate sectoral targets, and determining progress against these targets. Further, assessing progress against sectoral targets will provide a clear indication of the actual progress of decarbonisation across the entire economy. While the total emissions and high-level sectoral totals have utility, more granular understanding of sectoral decarbonisation progress is important to distil actual decarbonisation from broader economic and general factors that may influence emissions.

3. National Greenhouse and Energy Reporting Scheme

The NGER scheme has served Australia well over the past two decades. Emissions reporting for covered entities has been established and is mainstream, with a mature ecosystem of supporting advisors and service providers. The architecture of the scheme is well known and understood, with a high degree of acceptance. This means that there are opportunities to build on the scheme to address new challenges in progressing the transition.

3.1 Consider leveraging NGERs for managing additional aspects of the transition

Greenhouse and energy reporting provides a useful framework that can be built on to address new challenges. Increasingly, international jurisdictions are building on emissions reporting requirements to require other types of reporting. Reporting of **scope 3 emissions**, as well as disclosure of **net zero transition plans**, could be potentially be expedited by expanding the NGER framework.

- Scope 3 emissions: It is likely that in the future, the embodied carbon and energy of goods and services will be very important and a significant opportunity to gain competitive advantage. While scope 3 emissions reporting is often complex, undertaking this task through a government-run reporting scheme could build integrity and confidence, and facilitate easier calculation of embodied emissions in goods and services.
- Transition plans are increasingly seen as an important avenue to help organisations manage risks to their organisation resulting from the transition, and to plan how their organisation will become successful in a net zero economy. While transition plans are most often thought of in a company reporting framework, it may be necessary to implement some parts of transition plan reporting and disclosure through the NGERs framework.

3.2 Expanding NGERs coverage could assist smaller entities to decarbonise

The NGERs thresholds are currently relatively high and capture a small percentage of Australian emitters. There is potential to extend the coverage of the NGERs framework to help smaller businesses decarbonise and improve their energy performance. The EEC has previously recommended altering the NGERs thresholds to drive greater attention to improving energy performance.

As of 1 July 2023, there will be several distinct classes of emitters in Australia. Very large emitters will face a legal obligation to decarbonise under the Safeguard Mechanism, while those outside the mechanism face no obligation. This presents an equity issue – an entity that lies just below the threshold for safeguard will not be required to reduce emissions, and may therefore acquire a windfall competitive advantage compared to a competitor captured by the safeguard.

The EEC has previously recommended that the NGERs framework could be amended to create an incentive to manage and reduce energy use, as well as decarbonise, for a wider range of businesses. Driving engagement with energy use and reporting has demonstrated clear dividends in other contexts, including the Commercial Buildings Disclosure program, the former Energy Efficiency

Opportunities program, and the Greenhouse and Energy Minimum Standards Energy Rating Label program.

The previous Energy Efficiency Opportunities program was an excellent example of a mechanism to drive engagement with energy use – it provided large energy users with a requirement to undertake an energy efficiency opportunity assessment every five years and publicly report on the results of that assessment. While this program involved imposing regulation on business to do something that some would argue should be business-as-usual practice, the program was extraordinarily successful. In 2013, ACIL Tasman estimated that the program had saved energy users **\$323 million per annum**, at a net cost of abatement of -\$95 per tonne, with a cost-benefit ratio of 1:3.67, net of implementation and compliance costs. This is a strong example of well-designed regulation that provided a low-cost win-win for industry and the community.

The EEC encourages the Government to consider how the NGERS framework could be adapted to drive attention and engagement with improving emissions and energy performance. While the reformed Safeguard Mechanism should drive some engagement with energy performance, there are still a large number of enterprises outside the coverage of the mechanism who face no regulatory or financial pressure to decarbonise their operations.

At minimum, entities whose scope 1 emissions exceed the threshold for inclusion in the National Greenhouse and Emissions Reporting Scheme should face some type of additional requirements designed to help them to start decarbonising. Requirements could be relatively light touch, but still be a meaningful signal to assist decarbonisation.

There are several ways such requirements could be formed:

- Reinstating energy performance opportunity reporting, with immediate exemptions for entities that operate an effective energy management system. This would target the regulation to those firms that require a 'nudge' to improve energy performance, without adding regulatory burden to firms already engaged with improving their energy performance.
- Imposing surcharges for unmanaged energy market demand. Energy use which is not effectively managed imposes unnecessary costs on energy systems and increases competition for energy resources, which increases costs for all energy users. This would further enable cost-reflective energy pricing.
- Requiring evidence of effective energy and emissions management systems as a prerequisite to any claim for Emissions-Intensive Trade Exposed entity relief from liability under the Renewable Energy Target.

At a minimum, an expansion to the National Greenhouse and Energy Reporting Scheme – lowering the threshold for inclusion to scope 1 emissions of 10,000 t CO₂-e per annum should be imposed at both corporate and facility level. This could result in a graduated scheme that imposed greater requirements with increasing energy and emissions

| Scope 1 emissions (t CO₂-e) | Requirement | Signal to decarbonise |
|---|--|---|
| 0-10,000 | None | Educate, incentivise |
| 10,000-25,000 | Include in NGERS | Measure and report energy and emissions |
| 25,000-100,000 | NGERS + Energy Performance Opportunity Reporting | Measure, report and manage energy and emissions |
| 100,000+ | NGERS + Safeguard + Declining baselines | Legally required to decarbonise |

Under this scheme, current NGERS facilities would not be required to decarbonise, but would be required to demonstrate how they were managing their emissions. This requirement is similar to the design of the safeguard mechanism where entities applying for EITE relief would need to demonstrate how they planned to decarbonise. This would also provide an incentive to businesses to effectively manage and reduce their emissions, as increasing their emissions would increase compliance requirements.

4. Carbon Farming Initiative / Emissions Reduction Fund

The EEC has previously recommended that reforms be made to the CFI/ERF to improve the variety of sources of abatement that this program incentivises. While land sequestration has a valuable and vital role to offset residual emissions once we achieve net zero, their use to offset energy-related emissions risks wasting a previous and limited resource. Over reliance on land sector offsets also presents significant risks should reversal of sequestration occur, even assuming additionality concerns can be satisfactorily addressed.

Activities in energy efficiency and energy management can create substantial, additional and bankable emissions reduction today, while also yielding additional benefits to businesses and the community. This is of particular importance during the transition to net zero – catalysing energy efficiency can reduce both scope 1 and scope 2 emissions and is available at a range of scales from individual households up to large industrial operations.

In the context of offsets, energy efficiency and management activities can avoid emissions that would have occurred under a business-as-usual scenario. In some cases, this can be relatively simple to determine – replacement of inefficient lighting or other appliances with more efficient alternatives leads to easily calculable energy savings. In some cases, more sophisticated measurement and verification methods are needed to determine the actual emissions reduction associated with energy efficiency upgrades, which leads to high confidence in the genuine, additional emissions reductions created by these methods. Digitalisation of measurement, monitoring and verification can also reduce the costs and barriers to use of these methods, as well as providing users with better information about their energy use.

However, there are currently a range of barriers to participation of energy efficiency and energy management in the ERF, which are discussed below. Addressing these barriers would permit diversification of the generation of ACCUs and unlock a larger pool of abatement.

4.1 Additionality requirements

Reflective of its current incarnation as a program designed to encourage abatement via government procurement, the ERF currently has a range of requirements related to additionality. Currently, these include the newness requirement, the regulatory additionality requirement, and the government programs requirement.

Taken together, these requirements essentially mean that a project would be ineligible for participation in the ERF unless it would not be possible for the project to proceed in the absence of the intervention of the ERF. As a government procurement program, it is understandable that these additional requirements were an attempt to ensure that expenditure of government funds went to those projects in greatest need of funding. However, the additionality requirements set a high bar for project participation, excluding a range of projects that could have delivered significant abatement.

In a reformed ERF, additionality requirements will play an important role in ensuring that only genuine abatement is credited. However, the three current additionality requirements should be removed and replaced with a generalised additionality requirement to demonstrate that the proposed abatement is genuinely additional to business-as-usual. Individual method requirements can be

set to ensure that projects under each method have a robust method of demonstrating additionality to business-as-usual. In general, regulatory additionality would be retained, however the newness requirement and the government programs requirement should be reformed.

In particular, the government programs requirement should be abolished in favour of a list of specified programs that ERF activities are incompatible with (principally where involvement would lead to double counting of emissions reduction in the National Greenhouse Gas Inventory). For example, activities under the ERF should be able to leverage funding from state or territory governments, or energy efficiency schemes as well as receiving ACCUs. While other energy or greenhouse gas reduction schemes may be denominated in units of greenhouse gas saved, certificates or awards under those schemes do not count towards Australia's emission reduction target themselves (rather, their effect would be seen in lower inputs into the National Greenhouse Gas Inventory), and so there would not be a risk of double counting of effort. Allowing ERF projects to leverage other sources of government funding would improve the business case for some projects, and provide governments more flexibility to maximise abatement and increase the benefits arising from the transition.

For energy efficiency and energy management activities, there are highly robust avenues to ensure that emissions reductions are genuine and additional. Project-based activities that include measurement and verification (M&V) regimes have demonstration of the abatement generated by a program built into the conduct of the project and can easily demonstrate that emissions reduction associated with a project such as an equipment upgrade, or a process change, are additional to business-as-usual. In some cases, energy efficiency and energy management activities require up-front capital investment, acting as a clear delineation from business-as-usual activities.

Streamlining additionality requirements and making them fit-for-purpose would be a significant improvement to the ERF, and a way to ensure that a greater range of emissions reduction activities could participate in the ERF. The EEC recognises that determination of additionality is always a difficult exercise, and that the additionality of some existing ERF projects is contested. However, there remains opportunities to attract additional, genuine abatement into the ERF through commercial and industrial processes, and we suggest that the Review consider recommending changes to make additionality requirements fit-for-purpose under the new paradigm of operation for the ERF.

4.2 Barriers resulting from the contracting process

There are currently several barriers to participation in the ERF which are a legacy of the ERF's current mode of operation, where government contracts have been the primary method by which ACCUs are acquired. Examples of these barriers include the requirement for proponents to deliver minimum volumes of ACCUs, compliance and contracting terms, and the inability of ACCUs to be forward-issued.

4.2.1 Abolishing contract-related barriers

As the ERF transitions away from government purchasing, a new approach to ACCU generation could be considered to streamline project registration and ACCU issuance. In the future, carbon abatement contracts will not be required, as the primary source of demand for ACCUs should come from non-government sources. This means that there will no longer be a need for the carbon abatement contract framework, and the process for registering a project should be extensively

reviewed and streamlined. The Regulator should transition from a procurement-focused operation to an operation that is concerned with establishing simple, easy-to-use systems for project registration and progress reporting.

Similarly, many ERF processes have been designed to minimise risks to government of non-delivery – essentially financial controls to ensure that Commonwealth moneys are not expended on projects that fail to deliver contracted abatement, or that deliver non-genuine abatement. In the future, controls need to be centred on ensuring that ACCUs generated represent genuine and additional abatement, rather than mitigating financial risk to the Commonwealth.

In the future, should governments wish to purchase ACCUs for any purpose, a simple tender process for ACCU procurement should be sufficient. Beyond fulfilling existing contracts, the framework for carbon abatement contracts should be abolished, and frameworks for registering ACCUs should be reviewed to ensure they are fit-for-purpose to facilitate participation from a wide range of potential ACCU generators.

4.2.2 Accommodating up-front capital investment

In contrast to land-sector methods, energy efficiency and other commercial and industrial methods frequently require upgrades to equipment involving significant capital expenditure. This imposes requirements for project proponents to make all necessary investments for the project many months, and potentially years, in advance of the ability to recoup any of these costs through the sale of ACCUs.

In a regime based on the awarding of carbon abatement contracts through auctions, the uncertainty around progressing a project created significant barriers to matters such as arranging finance, determining optimal periods for installation of equipment (requiring reduction or stopping of production), or securing the acquisition of specialised equipment, trades and services. While these barriers are largely removed when auctions are not involved, the security provided by assured payment on contracted terms is also removed.

This means that there is a significant time gap between the capital outlay and the associated revenue from the sale of ACCUs, which also introduces significant price risks. If the market for ACCUs is volatile, the economics of projects may become less favourable if proponents are required to include a large discount factor on projected future ACCU revenue to take into account potential future price changes, or hedging or other forms of insurance is required.

The EEC suggests consideration of partial forward issuing of credits in some circumstances, particularly where large initial outlays of capital are required for project progress. This could allow project proponents to recoup some of the costs of capital outlay more quickly, reducing project risk profiles and encouraging greater ERF participation.

Registering a project would normally include a requirement to lodge an accurate estimate of the expected timeframe under which credits could be generated. Forward issuing of credits – for example, issuing 50% of the credits due in the first or second year immediately on verification of project commissioning, could help business cases for commercial and industrial projects be more attractive. A true-up of credits at the end of each year would ensure that credits had been issued only in respect of actual abatement.

4.3 Promoting market confidence

As the market for ACCUs transitions to a more open and diverse market, it is important for all participants – governments, ACCU creators, purchasers, and the community – to maintain confidence in both the integrity of ACCUs and the financial operation of the market. Purchasers need access to a ready supply of credits and relatively predictable prices, and ACCU generators need confidence that the market will deliver price outcomes that will make their projects economically viable.

As with all markets created on the basis of trading instruments created by regulation, the market is highly susceptible to risks associated with changes in policy or other government intervention. In similar schemes, price volatility in the traded instrument has robbed the market of confidence – creating higher than necessary levels of risk for project proponents. In some schemes, regulators have altered relative incentives or other scheme settings to address issues of scheme integrity, rather than making other administrative or compliance controls. These types of interventions should be avoided in the interests of promoting a vital, robust and confident market for ACCUs. Policy settings that do not promote confidence will mean that opportunities for abatement catalysed through ACCUs will be needlessly delayed or not proceeded with.

Reforms to the ERF to enhance and improve market confidence while assuring integrity in Australia's offsets market will provide the opportunity for a greater range of offsets to be utilised in Australia's transition to net zero.

5. Responses to questions

1. *What actions and enablers beyond those identified in the Strategic Framework could help Australia progress towards a prosperous and resilient net zero future? What are your highest priorities?*

The Authority's Framework is generally well conceived and contains most of the elements necessary for executing the transition. The EEC makes the following comments on the framework:

- The Framework might better be conceived as a hierarchy than a cycle. Abatement avenues are not equal in terms of cost, viability or risk, and the Framework would be well-placed to signal this. Efficient production is the least cost, highest viability, fastest to implement and least risk solution, with other avenues mentioned progressively costing more or introducing greater uncertainty. Such a hierarchy would preference domestic decarbonisation, which is a prerequisite for achieving a net zero compatible economy.
- Research, development and innovation are not mentioned in the Strategic Framework but will be integral components of a successful transition. Harder-to-abate sectors – especially where emissions do not arise from energy use – will rely on technologies not yet ready for deployment to successfully abate.
- The Framework would also be improved by adding **leadership** as an enabler. Leadership – be it government, corporate or community leadership – is a powerful tool to expedite and facilitate the transition. Government leadership can help provide certainty for businesses and investors, building markets and overcoming first-mover barriers; corporate leadership helps mainstream emissions reduction into the political economy, and community leadership helps build political permission and social licence for change.

2. *How are you and the people around you impacted by or preparing for the net zero transition and Australia's climate future? How can governments better support you to prepare for or respond to the impacts?*

Planning and preparing for the net zero transition – as well as the physical, social and economic impacts of climate change – is a critical task for this decade. Governments have a clear role to coordinate planning for the community, and to facilitate individuals and enterprises to make plans for their own situations. Planning and preparation reduces the risk of a disorderly transition, and this is the case across all sectors of society. In particular:

- **Governments** have a clear role to undertake planning where significant coordination is required – such as in the transition of energy networks – and to facilitate effective planning in the rest of society.
- **Companies** have a responsibility to their investors, employees and supply chain to effectively plan for the transition to net zero.

Corporate planning and reporting is increasingly being understood as crucial for an orderly transition, and other jurisdictions are introducing requirements for companies to report and manage their transition risks.¹ These initiatives should

¹ See, for example, the UK's [Transition Plan Taskforce](#)

be introduced into Australia at the same time as their international adoption to ensure Australia is not placed at a competitive disadvantage.

3. What should the Authority measure or assess to determine progress towards a just transition and improved wellbeing?

The International Energy Agency's work on the [multiple benefits of energy efficiency](#) – which can be identified and tracked – provide useful starting points to consider how the impacts of the transition and to maximise its benefits. Linking efforts to address climate change to broader human outcomes is important. For example, the [Sustainability Victoria Healthy Homes program](#) is a good example of linking energy efficiency – a key strategy for reducing energy emissions – to improved health outcomes for program participants. These types of measurements – alongside measuring our progress in reducing emissions – are important ways to make sure the transition serves the needs of the community.

In the last few years, the way in which we think about climate action has changed, and it is important to think about addressing climate change through a new lens. Previously, efforts to reduce emissions have been balanced or trading against other considerations such as economic progress or employment. However, the Government's legislated target of achieving net zero emissions by 2050 provides a clear set of guard rails which change the nature of the discussion. The proper framing is now *'Within the parameters of achieving net zero by 2050, how can the benefits of the transition be maximised?'* Inside this framing, it is important to consider reducing the risks of the transition – both the risks of failing to achieve the transition, and also the risks that the burdens of the transition fall on those least able to shoulder them.

Lastly, the EEC would encourage the Authority to consider expanding its conception of priority groups. In particular, culturally and linguistically diverse communities (CALD) play a large role in Australian society, and will be important participants and stakeholders in the transition. CALD communities will need to not only be a part of the transition, but to play their part in championing and leading the transition. Policy measures that seek to progress decarbonisation will need to be designed in ways that will both engage and support CALD communities through our collective journey to net zero.

4. What more could the Government do to help you reduce your carbon footprint?

Government leadership is a very powerful lever to help drive demand and market transformation for low-emissions products and services. Government procurement can drive firm demand for products, allowing the confidence suppliers to bring new products and services to market, which in turn can help wider deployment. The Government's Net Zero APS policy is a policy lever which can be used to drive this type of market transformation if suitably ambitious targets under the policy are created. Driving firm demand for low emissions products and services is a key avenue to widespread technology deployment, as flagged in the Authority's strategic framework.

5. What are the other challenges and opportunities the global context presents Australia with in responding to climate change?

Australia has the potential to be a regional leader in the transition. Substantial expertise in decarbonisation, renewable energy and energy efficiency are contained within Australia, and could be applied to assist our Pacific and south

east Asian neighbours to ensure that the benefits of the net zero transition are also available to those in our region.

6. What role is there for corporate action to 2030 and beyond?

Corporate action is critical component of our progress to net zero. As discussed earlier, the introduction of corporate transition planning and disclosure is a constructive lever. An effective mix of incentives and regulation will be necessary to ensure that corporate entities are able to play their part in the transition.

Long-term planning, investment and decision making is critical to make sure that Australia's transition is underpinned by sound strategies that build a strongly net zero compatible future, and policies should seek to encourage corporate Australia to take a long-term view of the transition.

7. When is it appropriate for the Government to regulate something?

Energy efficiency – and now energy performance - is an important avenue to reduce emissions. However, voluntary action has typically not been an effective tool to deploy these tools.

Policy, including well-designed, effective regulation is an indispensable tool in reducing barriers to improving energy performance and therefore reducing emissions. There is a substantial literature on the barriers to improving energy efficiency, and by extension energy performance, and a useful summary is provided in the Authority's 2020 advice to Government. The barriers classically considered to impede progress in energy efficiency, including market failures, including imperfect information, split incentives and externalities; behavioural, cultural and organisational barriers; the opportunity and financial costs of investing in energy efficiency, and policy uncertainty.

A significant complication in improving energy performance to reduce emissions is that while actions to improve energy performance must be taken at scale, the ability to take that action is distributed amongst millions of individual householders and business leaders. A limited number of these people possess the required motivation, knowledge, financial resources, and agency to invest in energy performance upgrades, or even to implement zero-cost behaviour changes. In contrast, influencing the actions of the energy supply system is more straightforward. Historically, the supply side has been made up of a smaller set of decision makers, who have a greater level of resources, knowledge and motivation and are closer to ideal, perfectly rational economic actors.

This highlights the limitations of the current policy approaches to improving energy affordability. Over the past two decades, energy policy reform has prioritised introducing additional competition into energy markets, allowing consumers a greater degree of choice in how they acquire energy services, and providing consumers with tools that could unlock innovation in energy service delivery (such as advanced metering infrastructure). However, these reforms have not unlocked a new wave of engaged, empowered consumers.

The simplest, least-risk action that a consumer can take to reduce their energy expenditure – with zero capital investment or need for any technology upgrades or behaviour change – has been to switch energy providers in competitive markets. This one single action can save consumers hundreds of dollars each year, however consumer research continues to indicate that energy users are reluctant to invest the time to switch energy providers.ⁱ The Victorian Government has gone so far as to provide customers with a \$250 payment if they

simply compare their energy bills using the Victorian Energy Compare website.ⁱⁱ This clearly demonstrates that consumer engagement with demand-side actions to reduce energy bills is relatively limited, and policy approaches that rely on consumers acting as engaged, rational economic actors capable of overcoming barriers to improving energy performance should be treated with a high degree of caution.

In contrast, the more successful programs to improve energy performance have relied on well-designed regulation, linked to technological improvement, innovative business models and incremental but steady improvement. Two useful examples of this are the Greenhouse and Energy Minimum Standards (GEMS) regime, and the Commercial Building Disclosure (CBD) Scheme. These programs successfully overcome market failures and correct for bounded rationality on the part of the consumer. Both of these programs have successfully delivered energy performance improvements for Australia. In just the first three years of the CBD program, it delivered benefits of more than \$44 million, and was reducing emissions by more than 0.6 Mt CO₂-e per year in 2018-19.ⁱⁱⁱ The GEMS regime is estimated to save consumers up to \$19 billion between 2000 and 2020, as well as 79 Mt CO₂-e. These regulations have delivered substantial economic and emissions benefits for Australia and provide a strong template for future action.

Regulation is clearly an effective method of improving energy performance at scale, particularly when coupled to complementary policies like promotion and education of the benefits of improving energy performance. The benefits of improving energy performance are frequently only realised through implementation at scale. While in some instances (such as in emissions-intensive industry), single decisions can have substantial effects on energy use and emissions, similar effects can only be realised when the action of millions of smaller consumers are coordinated. This is a clear role for government.

The Council is aware that there are currently several hurdles to introducing new regulatory regimes, or even continuing the existence of current ones, including the Regulatory Impact Assessment process. While the cost-benefit analyses that underpins such decisions can sometimes be useful, the Council is cautious of using such tools as the principal determinant for decision making in improving energy performance. Cost benefit analyses have significant limitations – in particular, while the costs of energy performance improvements can usually be easily determined, properly characterising the benefits from these activities is more difficult.

For example, the Decision Regulatory Impact Statement informing the National Construction Code 2022 attempted to quantify the costs of implementing the proposed energy efficiency upgrades but did not attempt to quantify the broader health benefits associated with improving the energy efficiency and thermal safety of residential buildings.^{iv} This is despite the health impacts of energy efficiency being widely characterised both in the literature, and even in a pilot study in Victoria conducted to measure health system savings from energy efficiency upgrades in homes.^v

While a range of policy approaches exist for improving energy performance, there is a clear role for regulation to ensure that consumers can capture the benefits of improved energy performance. While Australia has some regulatory regimes, international jurisdictions have made greater use of regulation to improve their energy performance – notably the European Union and the United States. The successful regulatory regimes of other countries demonstrate that effective regulation is indispensable in reducing emissions, and Australia should look to learn from international experience.

8. *How could the Authority best strike a balance between ambition, domestic considerations and the international context in its 2023 NDC advice?*
9. *What do you think Australia's 2035 target should be and why?*

These questions are addressed in section 1.

10. *What are some leading indicators of progress towards net zero emissions?*
11. *What are some leading indicators of progress towards preparing for and adapting to climate change?*
12. *What factors should the Authority consider when developing sectoral decarbonisation pathways?*
 - a. *What are the risks and opportunities for households, business, workers and communities affected by the transition?*
 - b. *Are there supply chain pressure points?*
13. *What is the role for Government in reducing these risks and assisting households, business, workers and communities to realise the opportunities?*

These questions are addressed in section 2.

14. *What are the most important things to consider when assessing the adequacy of a country's NDC?*
15. *How could Australia partner with other nations to accelerate global progress towards meeting the Paris Agreement goals?*
16. *What do you see as the challenges and opportunities from a phase out of fossil fuel production? What should the Government consider when determining a plan for the phase out of fossil fuels?*
17. *Should the Authority consider international maritime and aviation emissions in its advice?*

The EEC has no comment on these questions at this time.

18. *What risks and opportunities do you (including your household, business, workers and communities) face as the world decarbonises and as Australia responds to the impacts of climate change?*
19. *What could governments do to help?*

These questions are addressed earlier in the submission.

20. *What types of targets do you see as important and/or problematic, and why?*
21. *What do you see as the strengths and weaknesses of the NGER scheme? How could it be improved?*
22. *What aspects of methane measurement, reporting and verification should the Authority focus on as part of the NGER review?*

The EEC has no comment on these questions at this time.

23. *Following the Government's acceptance of recommendations of the Chubb Review, what do you see as the strengths and weaknesses of the CFI and ERF?*
24. *How could the CFI, ERF and NGERs be improved in the context of the Paris Agreement era?*

These questions are addressed in sections 3 and 4.

25. *Following adoption of the Chubb Review recommendations, what concerns about ACCU integrity remain?*
26. *What are the risks to integrity that should be buffered against?*
27. *How should a buffer be applied (e.g. government purchase, supply-side reserve, demand-side correction, other)?*
28. *What role should governments and users of offsets have in ensuring demand-side integrity?*
29. *What protections are needed to ensure the integrity of carbon trading markets and exchange platforms?*

These questions are addressed in section 4.

30. *What role should international carbon markets have in Australia?*

International carbon markets should play no role within Australia's domestic climate policy. Relying on international action is not compatible with achieving a net zero economy within Australia, and therefore should not be countenanced.

However, Australia has a clear role in spearheading climate action within our region. The Authority could consider how Australian carbon markets and other policy tools can provide expertise and leadership to facilitate climate action in our region, while preserving strong signals to invest in domestic decarbonisation in Australia.

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- ⁱ Australian Energy Market Commission (2021), *Residential energy price trends 2021*, AEMC; Australian Energy Regulator (2022), [State of the energy market 2022](#), Australian Government; Finder.com.au (2022), [Australians going to extreme lengths to cope with rising energy bills](#).
- ⁱⁱ Victorian Government (2022), [\\$250 Power Saving Bonus program - FAQs](#)
- ⁱⁱⁱ ACIL Allen (2015), [Commercial building disclosure program review](#), p.ii; Centre for International Economics (2019), [Independent review of the commercial building disclosure program](#), p.6
- ^{iv} ACIL Allen (2022), [National construction code 2022 decision regulatory impact statement](#), p.xviii
- ^v Sustainability Victoria (2022), [The Victorian Healthy Homes Program research findings](#), Victorian Government, Melbourne.