

Australian Government
Department of Climate Change, Energy, Environment, and Water
Electricity and Energy Sector Plan Taskforce

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26 April 2024

Electricity and Energy Sector Plan Discussion Paper

The Australian Energy Council ('AEC') welcomes the opportunity to make a submission to the Department of Climate Change, Energy, Environment, and Water's (the 'Department' or 'DCCEEW') consultation on the *Electricity and Energy Sector Plan Discussion Paper* ('Electricity Sector Plan' or 'Discussion Paper').

The Australian Energy Council is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. AEC members generate and sell energy to over 10 million homes and businesses and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 per cent emissions reduction target by 2035 and is committed to delivering the energy transition for the benefit of consumers.

The Electricity and Energy Sector Plan arguably represents the most critical component of the six sector pathways that will form Australia's Net Zero Plan. The gradual uptake of renewable generation over the past two decades has driven almost all of Australia's actual emissions reductions to date and this is expected to continue up until at least 2030. In addition to the real abatement a smooth energy transition achieves, it also creates opportunities to enable and accelerate decarbonisation in other sectors through electrification.

With that being said, placing such a high dependency on one sector to drive the abatement needed to reach Australia's climate targets is not without risk. It means that Australia's ability to meet its Paris goals hinge on a smooth energy transition, and the Federal Government has linked the attainment of 82 per cent renewable energy by 2030 to the 43 per cent emissions reduction target.

The progress of the electricity sector towards 82 per cent should therefore be a key policy question for the Electricity Sector Plan. It is not enough for the Department to assume this target will be met. Even with the expanded Capacity Investment Scheme ('CIS'), there are still roadblocks to meeting the target that might require additional policy levers to ensure there are appropriate investment signals both up to and beyond 2030, when the CIS and Renewable Energy Target ('RET') wind down. One of these levers should be a swift rollout of the Renewable Electricity Guarantee of Origin scheme.

The next policy question, which seems to be the focus of this Discussion Paper, is the role the electricity sector can play to enable a net-zero by 2050 future, with the Department working on the assumption that the electricity sector is 82 per cent renewables in 2030. Under this scenario, there will be less opportunities for lowest cost abatement within the electricity sector, and the focus is instead likely to be how to coordinate and firm high variable renewable generation to get closer to net-zero emissions. Getting to this stage will require better policy support for firming technologies, including long duration storage and flexible gas-powered generation.

In contemplating this, policymakers must be aware that governments alone cannot fund the energy transition. The current emphasis on government intervention to push the energy transition is not efficient in the long run and could make the transition less affordable for customers. Clearer market

settings and regulatory certainty, both now and post-2030, are needed to give all market participants the confidence to invest and run their assets efficiently.

Finally, when integrating the various sector plans into a Net Zero Plan, there should be contemplation of what is the most efficient and orderly way to achieve economy-wide emissions reductions. Stakeholders currently have no visibility of how each sector plan interacts with the other, which is especially problematic for electricity where key investment decisions (e.g. preparing for peak demand) depend on the policy actions taken in other sectors. Policymakers should consider if there are better ways to lower the cost of abatement compared to having a suite of sector abatement policies.

With this context in mind, the AEC has divided its submission into four parts:

1. **Role of electricity sector in supporting Australia’s 2030 emissions reduction target**
2. **Role of electricity in getting Australia to net-zero by 2050**
3. **Response to themes in Discussion Paper**
4. **Process of developing Electricity and Energy Sector Plan and Net Zero Plan**

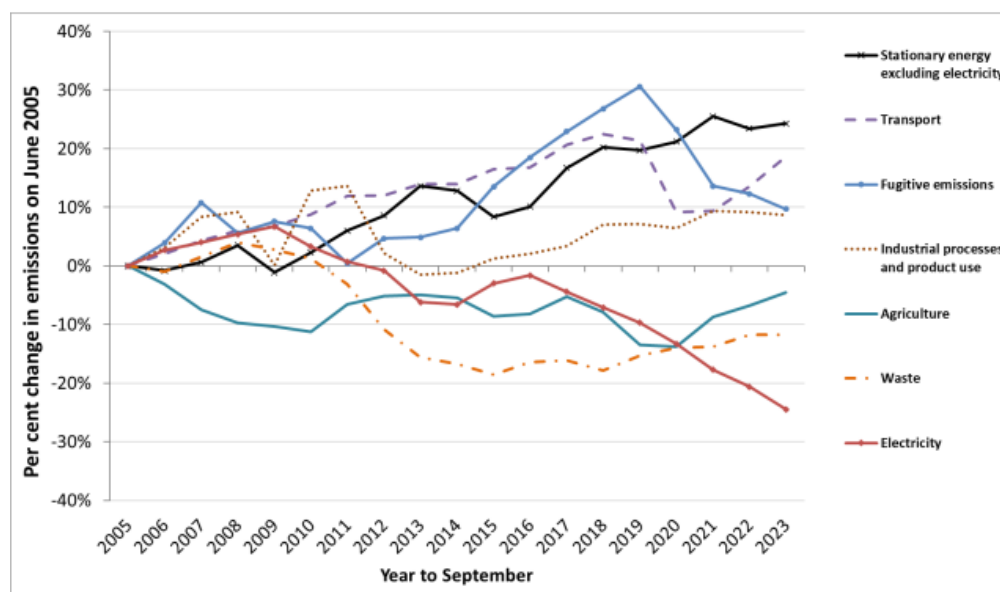
1. Role of electricity sector in supporting Australia’s 2030 emissions reduction target

1.1 Decarbonisation of electricity sector

The electricity sector has been the starting point for decarbonisation for most countries around the world and Australia is no different. The combination of high-emitting power stations reaching their natural end of life along with the commercial availability of renewable generation technologies has created opportunities for efficient abatement.

As of September 2023, emissions in the electricity sector have decreased around 25 per cent from 2005 levels which “primarily reflects accelerating renewables deployment and the ongoing displacement of coal as a fuel source”.¹ The figure below highlights this trajectory when compared to other sectors in the same period.

Figure 1: Percentage change in emissions, by sector, since June 2005 (excluding LULUCF)



¹ Department of Climate Change, Energy, Environment, and Water, ‘Quarterly Update of Australia’s National Greenhouse Gas Inventory: September 2023’, September 2023, p9.

Source: [Quarterly Update – National Greenhouse Gas Inventory](#), p9.

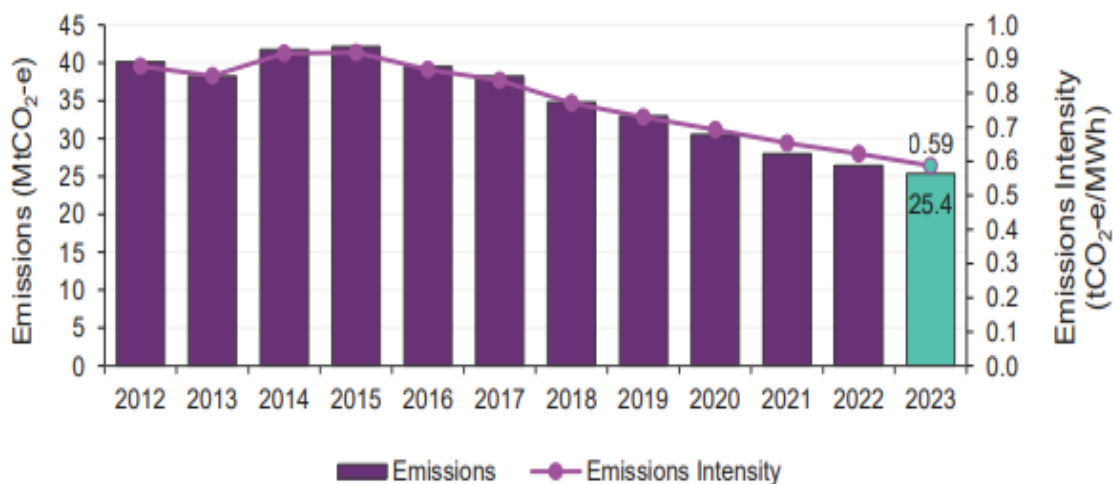
The decline in electricity sector emissions has been spurred largely by two policy factors:

- The RET has provided an incentive for the investment in large-scale solar and wind generation projects to partly replace retiring coal-fired power generation.
- The significant uptake of rooftop solar across Australia has displaced coal-fired power generation during the middle of the day. As of December 2023, over 22 GW of rooftop solar has been installed in Australia.²

Quarter 4 of 2023 saw the National Electricity Market’s (‘NEM’) total emissions and emissions intensity continue to reduce and hit a new all-time lowest record at 25.4 MtCO₂-e and 0.59 tCO₂-e/MWh respectively, as shown in Figure 2. The emissions intensity figures exclude distributed PV, meaning the reductions were driven by increased variable renewable electricity output displacing thermal generation.³

Figure 2: Lowest fourth quarter emissions and emissions intensity on record

Quarterly NEM emissions and Intensity (Q4s)



Source: Australian Energy Market Operator (‘AEMO’) [Quarterly Energy Dynamics](#), p35.

As more coal-fired power stations close, it is broadly accepted that renewable generation firmed by storage and backed-up by gas-powered generation is the lowest cost way to run a future electricity system.⁴ However, how quickly this transition can occur is a matter of contention.

1.2 Projected decarbonisation of electricity sector up to 2030

The Federal Government’s [Emissions Projections 2023](#) paints a vision of this future and highlights the extent to which meeting Australia’s climate targets relies on a fast electricity transition. Under the “with additional measures” scenario where Australia meets its 43 per cent target, emissions projections by sector (excluding LULUCF) up until 2030 are:

² Australian Energy Council, ‘Solar Report: Quarter 4, 2023’, February 2024, p3.

³ AEMO, ‘Quarterly Energy Dynamics’, January 2024, p35.

⁴ AEMO, ‘Draft 2024 Integrated System Plan’, December 2023, p18.

Figure 3: Emissions projections by sector (excluding LULUCF) under “with additional measures” scenario (MtCO₂-e)

Sector	2005 Emissions	2030 Emissions	Difference (+/-)
Electricity	197	60	- 137
Stationary energy	82	96	+ 14
Transport	82	94	+ 12
Fugitives	43	46	+ 3
Agriculture	86	80	- 6
Industrial	30	25	- 5
Waste	16	13	- 3
Total	535	415	- 120

Source: Federal Government’s [Emissions Projections 2023](#), p20-21.

As can be seen, it is expected that electricity will play such an oversized role in contributing to Australia’s 2030 emissions target that it must cover inaction across all other sectors. This scenario presented above rests on the assumption that Australia’s electricity sector reaches 82 per cent renewable energy by 2030. According to AEMO, this requires adding about 6 GW of new renewable capacity each year until 2029-30.⁵

1.3 Challenges facing decarbonisation of electricity sector

There are, however, substantial challenges to an accelerated renewable rollout that policymakers must resolve for this target to be met. These challenges include:

- Ongoing supply chain constraints that have increased the capital costs of renewable technology. Onshore wind, for example, saw its costs increase by 35 per cent in 2022-23 and then a further 8 per cent in 2023-24.⁶
- While the technology costs of large-scale solar PV have stabilised, the proliferation and success of rooftop solar is challenging the economics of investment in large-scale solar projects. This [cannibalisation](#) is expected to continue as more customers install rooftop solar to gain control over their electricity usage and reduce their electricity bill.
- Transmission projects face ever growing social licence scrutiny that is not necessarily resolvable through financial incentives. Increasing costs and delays are also becoming apparent with transmission projects.
- The time it takes for a renewable project to receive approval is getting longer, resulting in less projects being approved each year and well below the annual capacity required to reach 82 per cent.⁷
- How to maintain the ongoing provision of essential system services for secure operation of the power system is not clear. As synchronous generation retires from the power system, a solution for the ongoing provision of market-based essential system services will need to be developed.
- Poor policy cohesion between the Federal and State Governments and their respective plans for the electricity transition.

⁵ AEMO, ‘Draft 2024 Integrated System Plan’, December 2023, p48.

⁶ CSIRO, ‘GenCost 2023-24: Consultation Draft’, December 2023, p45.

⁷ Rystad Energy, ‘Independent Response to ACCC Question’, August 2023.

1.4 Current assessments of electricity sector decarbonisation progress

The Climate Change Authority's ('CCA') [2023 Annual Progress Report](#) made it clear that Australia is not currently on track to meet the renewable target ("without further concerted action, Australia is likely to fall short of the 82 per cent renewables target") and that the impact of this is material ("every percentage point we fall short of achieving 82 per cent renewables equates to roughly 2 Mt CO₂-e that needs to be reduced elsewhere in the economy").⁸

For some comparison, Rystad Energy has [forecast](#) Australia to be around 64 per cent renewable energy by 2030,⁹ while AEMO's [Draft 2024 Integrated System Plan](#) ('ISP') places Australia's total renewable energy at 63 per cent under a supply chain constraint sensitivity analysis.¹⁰

The Federal Government acknowledged this projected shortfall late last year and provided a policy response in the form of an expanded Capacity Investment Scheme. While the CIS will underwrite renewable energy projects, bringing some forward and helping others to become economic, it does not necessarily alleviate the supply side constraints mentioned above. Some preliminary [analysis](#) indicates that even with the expanded CIS fully implemented, there is a 9 GW shortfall in what is needed to be 82 per cent in 2030.

1.5 Additional policy response needed to accelerate decarbonisation

The AEC has some concerns that the Electricity Sector Plan is not intending to engage with or acknowledge the possibility of undershooting, with the Department stating that 'the Australian Government has already outlined detailed policies to support its 2030 renewable electricity target'. As it stands, these policies might not be enough on their own to achieve such a monumental energy transformation in such a short period of time.

With such a heavy reliance being placed on electricity to meet Australia's 43 per cent target, any shortfall is unlikely to be picked up by other sectors. It is possible that Australia could reach the 82 per cent target through exaggerated deployment in the final years of this decade, but a "just in time" approach would not align with Australia's carbon budget, especially when other sectors are seeing their emissions increase.

While there is no magic solution to the energy transition, there are some gaps in the current policy framework that might inhibit Australia's ability to reach its 2030 target. One gap that is particularly pronounced is the absence of investment signals for electricity infrastructure post-2030, with the two current policy levers – the expanded CIS and RET – both set to wind down in 2030. This is a problem because the projects that will help Australia reach its interim targets are long-term and want confidence in the post-2030 investment landscape as well.

The Department did consider this problem to some extent in its recent consultation on the creation of the Renewable Electricity Guarantee of Origin ('REGO') scheme, a proposed green certification scheme to replace LGCs in 2030. There has been no movement on the REGO since October last year, which seems to be putting the planned 1 January 2025 commencement in doubt.

The swift rollout of the REGO is important to allow renewable and storage projects, both now and post-2030, to capitalise on the voluntary demand for verifiable renewable generation. A delayed commencement may increase costs and dampen the current momentum for companies to have ambitious climate goals, spurred partly by the introduction of the climate-related financial disclosure

⁸ Climate Change Authority, '2023 Annual Progress Report', October 2023, p6.

⁹ Rystad Energy, 'Independent Response to ACCC Question', August 2023.

¹⁰ AEMO, 'Draft 2024 Integrated System Plan', December 2023, p77.

framework. This framework, along with the tightening of eligibility under GreenPower and Climate Active, should increase voluntary demand for certifiable renewable electricity in the near future.

The Federal Government might be able to increase the decarbonisation effect of REGO certificates if it were to include an emissionality aspect. This would involve stamping the displaced emissions at the time a certificate was created, allowing for the true marginal value of abatement from renewable electricity to be priced.

Aside from supporting the 2030 goals, the rollout of the REGO will be necessary to the Federal Government's renewable superpower ambitions, with certain projects (e.g. green hydrogen exports) requiring certification to meet the demands of international markets.

The current policy framework could also do more to derisk investment in dispatchable generation, including flexible gas-powered generation. The expanded CIS explicitly carves out gas-powered generation even though AEMO's Draft 2024 ISP forecasts a need for 16 GW of flexible gas by 2050 in the NEM to provide firm schedulable capacity for a high variable renewable generation grid.¹¹ Likewise, many state governments have identified gas as necessary to their energy transition. For example:

- Queensland's Energy and Jobs Plan intends to build "up to 3,000MW of new low-to-zero emission gas-fueled plant to cover dunkelflaute conditions".¹²
- Western Australia's planned closure of its coal-fired power stations by 2028 is predicated on using its existing large gas capacity to firm renewables.

The Federal Government should provide policy certainty regarding the need for additional, flexible dispatchable generation to be built beyond what is currently eligible in the CIS. This might involve a policy statement to the effect that investment in flexible and dispatchable generation is one condition of entry into the Renewable Energy Transformation Agreements.

While gas-powered generation is only one option and does not directly contribute to the renewables target, it can accelerate near-term emissions reductions by displacing, and allowing for, a more orderly closure of coal-fired power stations. Moreover, its firming capabilities are one part of the puzzle for enabling more renewables to come online over time.

2. Role of electricity sector in supporting Australia's journey to net-zero by 2050

2.1 Pushing a high renewables grid closer to net-zero emissions

Assuming Australia's electricity sector does reach 82 per cent renewables in 2030, electricity emissions are projected to fall to 60 MtCO₂-e. This will mean that three other sectors – stationary energy, transport, and agriculture – are now the major sources of Australia's emissions.

The emissions implications in this scenario are twofold: firstly, abatement in the electricity sector is almost certainly no longer the cheapest and most efficient option, and secondly, even if electricity transitioned to zero emissions by 2035, Australia could not aim for beyond 60 per cent emissions reductions without action from other sectors.

For electricity, driving further emissions reductions post-2030 is likely to be less about the mass deployment of renewables and more about making sure there is enough storage and capacity to firm

¹¹ AEMO, 'Draft 2024 Integrated System Plan', December 2023, p19.

¹² Department of Energy and Public Works, 'Submission to Transport and Resources Committee: Briefing Paper', 8 November 2023, p75.

existing renewables (around 50 GW of dispatchable storage is required according to AEMO) and meet peak electricity demand.¹³ This dispatchable storage will mostly come through three forms: the orchestration of CER technology, flexible gas-powered generation, and long duration storage.

2.2 Policy support needed for long duration storage

Long duration storage (from eight hours to multiple days) faces a similar catalogue of problems as flexible gas mentioned above. Although there is policy support for some deep hydro projects at a state level,¹⁴ long duration storage is not currently part of the federal policy landscape presumably because it is a) not within the 2030 time window and b) not a form of renewable generation even though storage capacity is integral to a workable high variable renewable grid.

The absence of policy support is problematic because deep storage is not something that can be built straight away. The technology has very long build times, high capital expenditure, and decent prospects of delay (as Snowy 2.0 is currently experiencing), which combined make it a difficult proposition for private capital to invest in alone. These factors mean that policy signals for investment must be put in place now or in the very near future, for such projects to be up and running in the next decade when there is higher renewables penetration.

The AEC encourages the Federal Government to consider allocating some funding for long duration storage through the CIS or another funding mechanism created specifically to solve for its characteristics (e.g. potentially a federal equivalent to NSW's Pumped Hydro Recoverable Grants Program).

2.3 Electrification can help other sectors decarbonise

Over the past year, the Federal Government has rolled out abatement policies across other sectors to encourage economy-wide decarbonisation. The AEC has supported such reforms, including the revised Safeguard Mechanism baselines and introduction of the New Vehicle Efficiency Standard, which are aimed at reducing industrial and transport emissions respectively.

These reforms place progressively tighter emissions obligations on industries in these sectors. While this is designed to avoid imposing unreasonable compliance costs, it does have the side effect of reduced emissions impact, and consequently these two sectors are projected to be the highest emitting sectors come 2030.

The AEC envisages electrification playing a major role in decarbonising these sectors, and with appropriate policy incentives and regulatory settings, governments do not need to wait until post-2030 to begin this journey. To that extent, the AEC strongly agrees with the Department's view of electrification being "identified as an early decarbonisation option across each of the sectoral plans".

The Discussion Paper, however, does then raise some caution about electrification going ahead while fossil fuel generation is still dominant. This caution is misplaced. Even at current emissions intensity levels, electrification represents a cleaner alternative to using liquid fuels in transport and gas for residential space and water heating, mostly due to the superior thermodynamic efficiency of electrical energy.¹⁵ Furthermore, industries that do electrify are put in lockstep with the electricity sector's decarbonisation, which is occurring at the fastest rate of any sector by far.

¹³ AEMO, 'Draft 2024 Integrated System Plan', December 2023, p10.

¹⁴ For example: Queensland's Energy and Jobs Plan is aiming to build two pumped hydro projects that deliver up to 7 GW of long duration storage, while New South Wales' Electricity Infrastructure Roadmap has committed to building 2 GW of long duration storage.

¹⁵ See footnote 11. The International Energy Agency (IEA), for example, has made it clear that electric technologies like heat pumps are far more efficient, regardless of electricity generation mix.

The biggest challenge electrification uptake faces is *not* waiting for its emissions reduction value to improve – this value already exists. Rather the challenges relate to the affordability of electrification (e.g. upfront costs of replacing a gas stovetop with an electric one), accessibility of electric technology (e.g. making sure there is proper public charging infrastructure for electric vehicles) and changing customer habits (e.g. resistance to using an electric appliance).

These are all policy areas in which governments can play a role, with the Federal Government’s National Energy Performance Strategy being designed to support households affordably and smoothly transitioning to electrification. Some other recommendations relating to regulatory and technical reform of CER are provided in 3.2.

One challenge that governments might face with respect to businesses electrifying is whether the de facto carbon price set via the Safeguard Mechanism is strong enough to incentivise actual abatement as opposed to the purchasing of credits. If it does become apparent down the track that the compliance signal is not strong enough, there may be a need to tighten the use of credits or alternatively consider the merits of moving towards an economy-wide carbon price.¹⁶ This would make it easier to identify where the most economically efficient abatement is, ensuring the costs of the transition are minimised.

3. Response to themes of Discussion Paper

3.1 Mobilising investment to transform energy

What the electricity sector looks like post-2030 is obviously influenced by the policy decisions made today. The AEC believes markets provide a more efficient allocation of capital that leads to more affordable outcomes for customers. While it is hopeful to hear that “the market will become less characterised by government support post-2030”, the impacts on private investor confidence of ongoing government intervention will likely linger for some time.

Some key challenges to overcome to efficiently mobilise investment are:

- Continued growth in close to zero short-run marginal costs variable renewable energy will put downward pressure on spot prices over time, challenging investment in generation, particularly if scarcity pricing is not allowed to operate. Existing generation (not supported by a government scheme) could also struggle to ensure revenue adequacy.
- Availability of firm volume risk management contracts (such as swaps) is likely to decline over time as natural suppliers (i.e. coal plant) retire. The subsidisation of variable renewable generation through government schemes such as the CIS could further weaken incentives for projects to contract with third parties like retailers, further reducing contract market liquidity.
- Operational challenges in a market dominated by renewables and storage – i.e. market operations could be challenged in a NEM dominated by renewables and storage. This could lead to more AEMO interventions (e.g. directing plant to retain charge), creating uncertainty and unmanageable dispatch and pricing risk for operators and participants.
- System security and reliability challenges in a high renewables system – as schedulable synchronous plant exits the energy system, the system security needs of the system must be met via non-traditional plant, which currently have no market mechanisms or investment incentives in place. This will potentially be resolved via regulated network investment, with much higher cost outcomes for consumers.

¹⁶ The Productivity Commission did [identify](#) last year that using a “suite of alternative sectoral abatement policies” is resulting in a “higher overall cost” of abatement compared to an economy-wide emissions trading scheme (see page 13 of their report).

- Unwinding government support and transitioning to market – what does the exit strategy for the CIS, Orderly Exit Management Framework, and direct state funding look like? How do governments credibly transition back to a market-based approach to provide confidence to private capital?

A starting point for resolving these challenges and mobilising private capital is the Federal Government’s committed post-2030 review of the National Electricity Market. With consultation expected to begin shortly, the AEC has started developing early principles to ensure the review encourages optimal market design:

- The 2030 reforms must focus on market design that works in a high variable renewables system and should be enduring.
- Market design must deliver revenue adequacy and therefore investment incentives for both energy and system security, allowing governments to credibly step back from continued intervention.
- Market design must work for a range of technologies. The focus should be on the fundamentals of how to value what the grid needs in a neutral way and harness the market to drive consumer outcomes.
- Market liquidity and how retailers manage risk in a high variable renewables system must be well managed. The AEC preference is to avoid mandated or centralised arrangements and maintain a bilateral contracting approach.
- System security challenges in a high variable renewables system will be best managed via market-based solutions for essential system services.
- Reliability settings must be calibrated to protect against high-cost consumer outcomes.

3.2 Enabling electrification for a smooth transition

The AEC expects electrification to play a substantial role in decarbonising large parts of the Australian economy, and that it will achieve emissions reduction even with the current generation mix. Importantly, industries that do electrify will then be in lockstep with the electricity sector’s decarbonisation, which is occurring at a fast rate.

Electrification will throw up tricky regulatory and technical challenges for policymakers and AEMO as electricity demand increases, which will require sufficient schedulable energy producing generation and the orchestration of CER technology to manage. The AEC considers there to be certain principles governments, policymakers, and energy market bodies should follow when responding to these challenges:

- Consumers should maintain sovereignty over their assets and receive fair compensation for orchestration. Forced curtailment or operation of CER technology risks reduces the social licence for the electricity transition if customers start to feel that it is not for them.
- Future electricity network investment and regulatory determinations should not follow the philosophy of “build it and they will come”. The recent Project EDGE case study [showed](#) that customers with CER are primarily motivated by a desire to reduce their electricity bills and be energy self-reliant and remain wary of participation in aggregation. A better understanding of the value customers place on CER integration is needed before locking in any long-term expenses.
- Retailers, as the customer facing part of the industry, should be expected to play a key role in showcasing the value of CER integration to their customers through initiatives like trials, pilot projects, and innovative product offerings.

3.3 Growing alternative low carbon fuels

Low carbon fuels will play a niche but important role in decarbonisation, especially in hard-to-abate industrial sectors where electrification is not an option. These sectors are likely to be the last to decarbonise and (so long as the Net Zero Plan reflects the efficiency of abatement across sectors) policymakers should not be rushing to pick certain technologies for them.

At the moment, federal and state governments have appeared to elect hydrogen as the technology of the future. While it might indeed play some role, the current level of government subsidy towards this industry does not appear efficient nor equitable (especially in circumstances where customers are subsidising it, such as the [NSW Renewable Fuel Scheme](#)).

The AEC encourages governments and policymakers to take a technology-neutral approach to growing low carbon fuels which does not discriminate against fuel types and allows for innovation. Where governments do provide technology-specific support, it should be in the form of grants or pilot programs that support research and development (such as the NSW Decarbonisation Innovation Hub).

Finally, while the Discussion Paper has been clear in its support for electrification, the section about low carbon fuels does make some reference to the potential deployment of low carbon alternatives in gas networks. If this means hydrogen blending in gas networks, the AEC stresses that electrification is already a cheaper and cleaner alternative for customers, and these benefits will only grow over time. The embrace of electrification in jurisdictions with high residential gas – namely Victoria and the ACT – should vindicate this position. For households that are unsuited to electrification, biomethane can be expected to play a niche role due to it being chemically similar to methane and therefore easily injectable into the gas network.

3.4 Building Australia's clean energy workforce

The energy transition will present new economic and employment opportunities, as well as causing disruption to those communities with emissions-intensive industries. The AEC published a report [last year](#) that looked at what Australia can do to ensure the energy transition is just and fair.¹⁷ Drawing on past domestic and international experiences, the report highlighted that there is no silver bullet approach to supporting affected communities. What is needed rather is a whole-of-society effort that is tailored to the particular circumstances of each community.

The recent passing of legislation to establish the Net Zero Economy Authority is an important step towards a whole-of-society focus. It means there are now federal, state, and regional programs to supplement existing industry efforts to create viable future career pathways for workers at retiring coal-fired power stations. These efforts include:

- No forced redundancies following the closure of the Liddell Power Station, with AGL workers either [offered](#) new work opportunities or electing retirement.¹⁸
- Energy Australia having already put [programs](#) in place to provide transition support to their workers once Yallourn Power Station closes in mid-2028.¹⁹
- Workers at Queensland's coal-fired generators owned by Stanwell and CS Energy receiving government-backed support through the Jobs Security Guarantee.
- Workers at Western Australia's coal-fired generators owned by Synergy having government-funded support through the Collie Transition Package.

¹⁷ Strategen, 'Just Transition: Navigating Australia's Energy Transition', November 2022.

¹⁸ AGL, 'AGL's Liddell Power Station Closes After 52 Years of Operation', April 2023.

¹⁹ Energy Australia, 'Energy Australia Helps Yallourn Workers Prepare For Life After Coal', November 2022.

3.5 Maximising outcomes for people and businesses

Governments maintaining their social licence through the energy transformation will depend largely on making sure abatement occurs at least cost to customers, and that no customers are left behind.

This affordability aspect must be embedded in market and policy design, as well as governments providing targeted support for particular customer groups. The AEC has given some views on this throughout this submission, including:

- Designing a future wholesale electricity market that mobilises private capital and allows for technology-neutral, market-based outcomes to encourage more efficient investment.
- Targeted subsidies that encourage the uptake of electric appliances and protect vulnerable customers that remain on the gas networks.
- Contemplating whether the current approach of sectoral abatement policies encourages the most efficient abatement in the long-term.

Aside from maintaining affordability, it is important that regional communities and customers are given choice and control, rather than being subjects of policy reform. The sincere implementation of the recommendations in the Andrew Dyer Community Engagement Review is one part of the evolving process of improving engagement with regional communities.

4. Process of Developing Electricity and Energy Sector Plan and Net Zero Plan

The AEC understands the government's intent is to have the Net Zero Plan final and ready before the end of this year. This timeline does not seem to leave a lot of time for quality stakeholder consultation, noting that:

- Discussion papers for built environment, industry and waste, resources, and transport, are still to be released.
- These discussion papers represent the first consultation stage, with departments indicating they intend to hold a second round of consultation in response to stakeholder feedback and the CCA's advice (which is due to Government by 1 August 2024).
- The CCA is simultaneously running consultation this year on Australia's 2035 emissions reduction target, which once finalised, would seem to heavily influence the trajectory to net-zero if the Net Zero Plan is presumably following a target-consistent approach.

The process is further confusing for stakeholders because there is no single body in particular leading the Net Zero Plan, with different departments taking responsibility for their respective sector pathways. While there might be coordination occurring across the departments internally, it would be helpful if this was centralised and made visible, potentially through the creation of a Net Zero cross-departmental team or taskforce.

Finally, for the Electricity Sector Plan specifically, there are many uncertainties as to how its trajectory will be incorporated:

- How will it take into account state decarbonisation policies and future policy announcements, including the Renewable Energy Transformation Agreements?
- Will there be consideration of alternative decarbonisation scenarios if the electricity sector undershoots the 82 per cent target, as is currently projected?
- Is the Department intending to propose new policies through this Plan to accelerate decarbonisation?

- To what extent does the plan intend to engage with Western Australia’s Wholesale Electricity Market (e.g. are questions about wholesale electricity market design NEM-only or Australia-wide?)

The AEC looks forward to continuing working with the Department to support the integration of the Electricity and Energy Sector Plan into the final Net Zero Plan in a manner that promotes cost-efficient abatement across the economy.

Any questions about this submission should be addressed to Rhys Thomas, by email Rhys.Thomas@energycouncil.com.au or mobile on 0450 150 794.

Yours sincerely,

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