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Department of Climate Change, Energy, the Environment and Water
Electricity and Energy Sector Plan Taskforce
Via: EnergyandElectricitySectorPlan@dcceew.gov.au

ENA Submission to Electricity and Energy Sector Plan, Discussion Paper

Energy Networks Australia (ENA) welcomes the opportunity to make a submission to the Department of Climate Change, Energy and Water's (DCCEEW's) Electricity and Energy Sector Plan, Discussion Paper (the Discussion Paper) issued in March 2024.

ENA represents Australia's electricity transmission and distribution and gas distribution networks. Our members provide over 16 million electricity and gas connections to almost every home and business across Australia.

Our submission focuses on the benefits of decarbonisation across the whole energy system. In summary:

1. Our collective focus must be on decarbonising at least cost to meet net-zero emissions targets. Policy choices should holistically consider the whole of the energy system, targeting areas with the greatest emissions reduction, at least cost to customers and our communities. That is, the electricity, transport, and heavy industrial gas sectors.
2. As a nation, our commitment to removing coal from the electricity system is the right choice and our focus and commitment to building new transmission and connecting renewables and new firming capacity, including gas generation, is now more important than ever. The distribution grid must play a critical role, with the capacity to host additional renewable generation, facilitate flexible demand measures from smarter customer energy resources and provide critical storage infrastructure through community batteries.
3. The path to decarbonise the light vehicle transport sector by incentivising EVs and facilitating their charging infrastructure is also a next step to decarbonise our economy. Energy networks are critical platforms for the effective roll-out of EV infrastructure and storage needed across the grid.
4. To ensure a future for heavy industry in Australia, our initial focus should be to develop a pathway to renewable gas for industry, leveraging the critical role of gas networks in that pathway. Policy decisions to decarbonise the gas sector must fully consider the broader implications for the whole system.

ENA is working with a consortium of consultants, led by L.E.K. Consulting, on optimising the role for customers that distribution networks can play in the broader energy system through the transition. This is expected to be completed in June 2024. ENA has also completed a large body of work on renewable gas policy settings, which will be published shortly. We would welcome further engagement with DCCEEW to

share the findings of this work and to engage more broadly on the electricity and energy sector plan.

1. Decarbonisation is a once-in-a-century opportunity

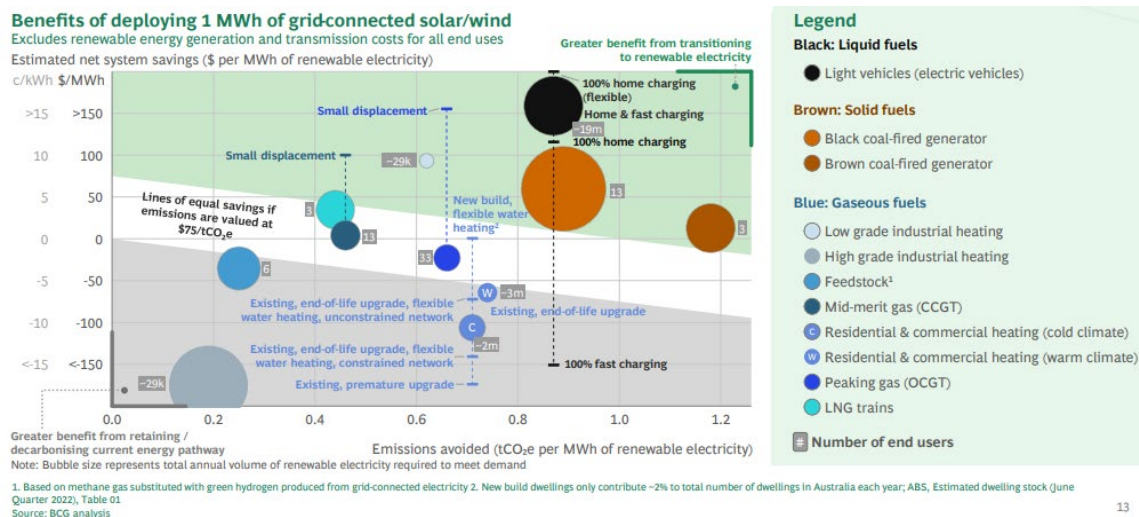
Decarbonising Australia’s economy is the defining challenge of our time. It is also an unparalleled opportunity. Decarbonising at the least cost will leverage our natural resource advantages, positioning Australia as a leading competitor and provider of choice for a global economy that is also decarbonising.

Policy choices must be made in an integrated, whole-of-energy system context to decarbonise the economy at the lowest cost. A well-coordinated policy approach reduces the risk of excessive costs, higher emissions, and unintended impacts on energy consumers and the economy.

Data suggests we can make the greatest emissions reductions by removing coal from our grid, replacing our fossil-fuel light vehicles with electric vehicles (EVs) and solving for industrial processes that rely on high-heat manufacturing or use gas as feedstock.¹

A useful exercise to inform the economy-wide decarbonisation challenge is to consider the costs and emissions benefits from decarbonising by replacing activities with firm renewable electricity. This question was posed in a recent Boston Consulting Group report, with its key findings shown in the figure below.²

In this figure, the *size of the bubble* indicates the volume of emission that could be reduced in the sector, the *position on the X-axis* indicates the emissions intensity of the activity, and the *position on the Y-axis* shows the net system savings from replacing that activity with firm renewable electricity.



¹ Department of Climate Change, *Energy, the Environment and Water: Quarterly update of Australia’s National Greenhouse Gas Inventory: December 2022*, March 2023.

² Boston Consulting Group: *The role of gas infrastructure in Australia’s energy transition*, June 2023, available from: <https://www.agig.com.au/-/media/files/agig/annual-reports/BCG-Reports/20230814-ROGIET-SummaryArticle.pdf>.

The BCG analysis highlights that:

- Coal-fired electricity generation (the two brown bubbles) is the sector with the most significant volume of emissions with the greatest emissions intensity that can be replaced by firm renewable electricity with high net system savings
- Light vehicle transportation (the black bubble) is the sector with the next largest volume of emissions with high emissions intensity. This activity also has the highest net system savings when replaced with firm renewable electricity
- Transitioning gaseous fuels (all the other bubbles) to firm renewable electricity is a more complex story. The most significant volume of emissions from gas comes from high-grade industrial heating and feedstock, which are moderately emissions-intensive and are costly or unable to be replaced with firm renewable electricity. Other uses of gas fuels (such as household uses) represent smaller overall sources of emissions and have varying cost and emissions intensity implications.

The critical takeaways are that it makes sense, based on what we know today, to rapidly decarbonise electricity generation and light vehicle transportation by transitioning these to firm renewable electricity. In contrast, the best approach to decarbonising the gas system is less clear. Decarbonising the gas system will require the development of a thriving renewable gas sector that should initially focus on decarbonising industrial gas use, which has the most significant emission reductions that can be achieved.

2. Unshackling the electricity grid from coal

Removing coal from Australia's energy mix has been a long time coming. Strong signals across state and federal governments now provide a long-term direction that Australia's coal-fired power stations must progressively exit the electricity system and be replaced by firm renewable generation. The enormity of this challenge is not lost on us – it is a difficult road ahead, but networks are up for the challenge. The transition away from coal generation in the electricity system is supported by:

- Electricity transmission and distribution networks connecting utility scale renewable generation across their existing footprint, building new transmission and distribution lines to allow renewable power to flow to where it is needed
- Networks building renewable energy zones to connect record volumes of firm renewable electricity
- Transmission networks keeping the lights on by providing services that are lost as coal generators retire, maintaining the power system within its secure technical envelope
- Distribution networks supporting increased hosting of renewable electricity and storage and playing a pivotal role in facilitating the flexible electricity consumption required to keep system costs down for customers.

This work must continue at pace. This involves unlocking investment to deliver actionable Integrated System Plan (ISP) projects and renewable energy zones on time, ensuring smooth and efficient grid connection for renewables and storage. A critical element of the transition will be the need to uplift capabilities to ensure a

secure power system in an increasingly dynamic and uncertain environment. This will require new ways of approaching system security, and greater operations capabilities in network planning, real time control rooms, and supporting processes and tools.

The transition will also require rapidly evolving critical regulatory arrangements so they are fit for purpose during and after the transformation. This should consider how distribution networks can better support the roll-out of storage that captures and stores renewable energy and with the right tariff structures, can make green energy more affordable and within everyone's reach, no matter their means.

Electrification to decarbonise only makes sense if our electricity supply is largely renewables based, and if coal is removed from the system.

Uniting the nation on the pathway to build the transmission and storage infrastructure is critical to a successful transition. By coming together now, we can unlock the affordable and sustainable future that renewable energy offers us for generations to come.

3. Highway to electric vehicles

The decarbonisation of the transport sector is a massive opportunity for energy customers and should be considered part of the home's decarbonisation journey. EVs for light vehicle transport will play a significant role in the decarbonisation of the transport sector. The effective decarbonisation of this sector relies on:

- The continued decarbonisation of the electricity system, and
- The use of smart incentives and approaches to ensure that EVs soak up excess renewable electricity and do not materially extend or increase fossil fuel generation.

The efficient integration of EVs into the electricity system will help spread costs across greater electricity consumption, reducing electricity prices in the long run. Our analysis shows that combined household energy bills (electricity plus liquid fuels for transport) are significantly lower when a customer transitions to an EV.³ A customer's home decarbonisation efforts are well progressed by replacing a petrol or diesel vehicle with an electric vehicle when they can do so.

Getting the right balance of infrastructure investment for customers across the electricity supply chain requires effective regulatory planning and reform, price signals, and approaches to ensure that EVs do not add significantly to peak demand on the grid.

Overall, electricity networks are preparing for this change to the use of the grid and have trials underway to explore how to manage demand, incentivise behavioural change and find effective ways to use EVs to soak up excess renewable electricity as it comes online. Regulatory reform could help electricity distribution networks turn

³ Energy Networks Australia, *Mind the gap: navigating a customer focused transition*, June 2023.

these trials into general practice, ensuring critical infrastructure arrives in time, or ahead of the curve, for when and where customers need it.

4. Renewable gas delivered by networks is needed to keep industrial jobs in Australia

The decarbonisation of Australia's gas system is a complex problem that has enlivened furious debate and insufficient action in areas where it really matters for most Australians.

Australia must continue to refine materials and manufacture goods. Around 40 per cent of Australia's gas use occurs in manufacturing and industry, compared with about 10 per cent used in homes. The emissions for many applications in the heavy industrial sector are either impossible or too expensive to abate through electrification. The scaling-up of renewable gases, such as bio-methane and hydrogen, must occur quickly for this sector to survive and thrive.

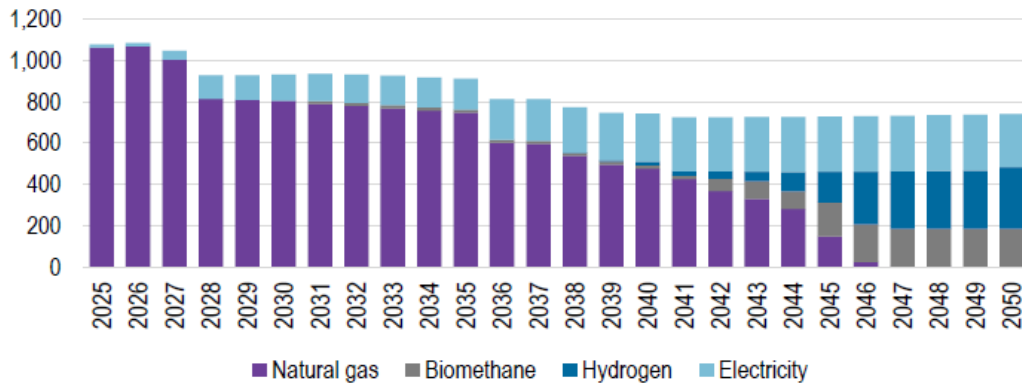
The sheer scale of industrial energy consumption presents opportunities for policies to deliver investment in renewable gas technologies. This can help drive innovation, reduce costs through economies of scale, and accelerate the development of renewable gas infrastructure and supply chains while keeping Australian jobs on shore. Existing gas infrastructure is a critical platform to enable a nascent renewable gas industry, and for the successful and reliable delivery of renewable gas at scale.

ACIL Allen⁴ developed a model to chart the lowest cost pathway to reduce emission from gas used by Australia's industrial, commercial and residential sectors. The model selected the most cost-effective solution for industrial, commercial or residential customers within a carbon budget constraint. The most effective cost solution considered the capital upgrade of appliances, their lifetimes and efficiencies and the fuel cost over the expected life of the appliance. The carbon budget is roughly a linear

⁴ ACIL Allen (2024), *Renewable Gas Target – delivering lower cost decarbonisation for gas customers and the Australian economy* – to be published on www.energynetworks.com.au on 29 April 2024.

decrease to 2050 and aligns with the emission reductions outlined in the revised Safeguard Mechanism.

Figure ES 3 Theoretical Efficient Policy scenario fuel mix (PJ)



Source: ACIL Allen Gas Transition Model

The main results from the modelling show that:

- both electrification and renewable gases have a role to play in the lowest cost pathway to decarbonisation.
- energy efficiency improvements from electrification reduces the total demand of energy needed to deliver the same services.
- early opportunities centre on electrification in some industrial processes (mainly conversion of LNG trains that are undergoing capital equipment upgrades) and later opportunities require renewable gases. This signifies difficult to abate sectors are decarbonised at a later stage as it is more expensive to do so compared to early electrification of some sectors.

Innovative projects to get renewable gases to industry are already in operation.⁵ While this renewable gas flows to all customers on the local network, it provides opportunities for industry to purchase renewable hydrogen and biomethane to displace natural gas.

The debate needs to correct away from a narrow lens of gas versus electricity for households, especially while coal is in the system, which reduces the emissions benefit in switching. Instead, there is a growing urgency for renewable gas solutions for industry to address larger-scale energy consumption, reduce significant emissions, and support economic and environmental sustainability on a broader scale. And until we better understand the future of heavy industry currently relying on gas network infrastructure, we should be mindful of any policy that could inadvertently rule out this pathway.

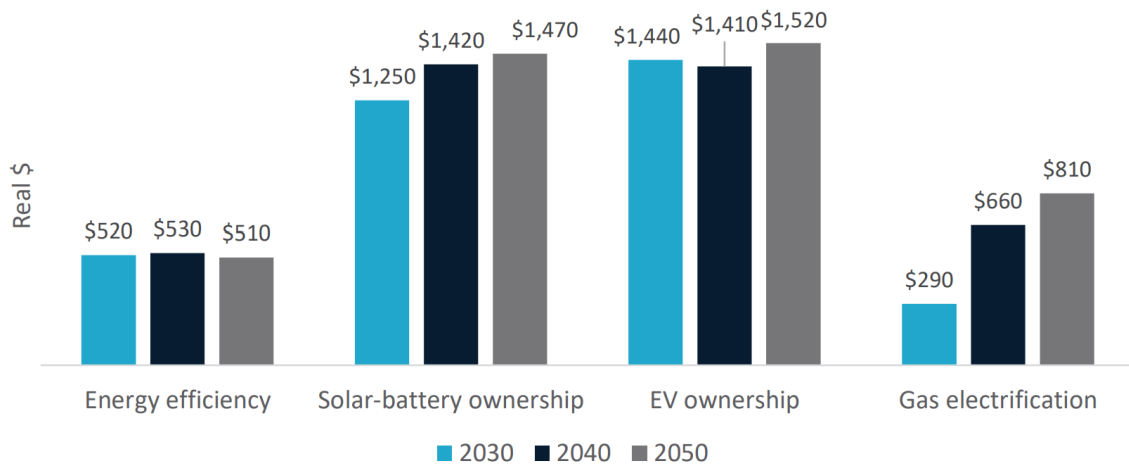
⁵ Energy Networks Australia, *Renewable gas innovation: delivering renewable gas to customers*, August 2023.

5. A fair transition for all of Australia’s families

At the heart of our transition is every Australian home, and customers can and want to participate in the transition in a meaningful way. It is on us to ensure we don’t leave anyone behind.

Australian households should be encouraged to continue to make choices to decarbonise their homes in ways that suit their needs and the needs of the broader energy system and its users. Australia has some of the highest rates of installed rooftop solar and customers want to continue to be a part of the solution to reducing emissions.

While individual circumstances will vary, research consistently shows that the best ‘bang for buck’ to decarbonise households starts with rooftop solar, energy efficiency practices and purchasing an EV. The cost implications for households are highlighted by research conducted by CSIRO and Dynamic Analysis for Energy Consumers Australia (ECA), with key cost savings by technology and timeframe shown in the figure below.⁶



The greatest near-term benefits come from EVs, solar and batteries,⁷ and energy efficiency. We support ECA’s key policy recommendations from this research that:

- Households need the right information at the right time from a trusted source that is clear and, in their language, to empower them to make decisions that are right for their situation, and
- Households that face barriers to electrifying their homes will need support so that no one is left behind, so that the last households to electrify (which we take to

⁶ CSIRO and Dynamic Analysis, *Consumer impacts of the energy transition: modelling report*, July 2023.

⁷ Note that while this research considered solar and batteries together, the value for customers is higher for solar PV than behind the meter batteries, and the value to all users of the energy system is much greater from larger ‘community’ scale batteries installed in front of the meter.

include solar, EVs and energy efficiency) are the ones that choose to wait, not those who could not afford to.

Any support for household emissions reductions should be targeted at those most in need and initially at the improved efficiency, solar and EV applications that will make the biggest difference for customers. Electricity and gas networks support helping customers to make *decarbonisation choices* that are best suited to them, at least cost. There is no one-size-fits-all solution. Individual circumstances and broader impacts on the energy system must be considered, including location, budget, and home type.

Attachment A includes answers to the questions contained in the Electricity and Energy Sector Plan Discussion Paper that are relevant to our members.

ENA is looking forward to engaging with the department on the Electricity and Energy Sector Plan as it continues to evolve.

If you would like to discuss the contents of this submission, please contact Dominic Adams, General Manager - Networks at dadams@energynetworks.com.au.

Yours sincerely



Dominique Van den Berg
CEO

ATTACHMENT A: Reponses to discussion paper questions

High level responses to the questions set out in the discussion paper are provided in the table below. We would welcome the opportunity to share more detailed information with the DCCEEW project team as this work develops.

No.	Question	Response
1.	What actions are needed to attract the required large scale private capital and household investment in the energy transformation, with or without government intervention?	<p>ENA supports a strong ongoing role for the key institutions of government tasked with facilitating investment into the clean energy transition. In particular, the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation (CEFC) each play a critical role in mobilising early and pre-commercial stage investment.</p> <p>The CEFC also plays a critical role supporting the urgent roll-out of new major transmission infrastructure through the Rewiring the Nation fund. We note that much of this fund has been allocated, and there is still significant work to be done to achieve the reconfiguration of the transmission system. Furthermore, we note that the fund’s investment mandate is much broader than just transmission infrastructure, and that the CEFC is likely to consider investments across transmission and distribution networks to facilitate storage, new generation and demand management.</p> <p>The initial allocation of \$20 bn for the RTN fund may not be sufficient to achieve the desired outcomes. The Federal Government could consider whether further allocations to the fund would extend the valuable role that the CEFC plays in facilitating investment into key aspects of the energy transition.</p> <p>Similarly, the \$2 bn Hydrogen Headstart program appears focussed on replacing hydrogen from natural gas with green hydrogen in Australia’s ammonia production section. This grant program should be extended to support other applications of hydrogen (for example in making steel or cement) and expanded to include the potential role of biomethane. An extension of these programs will provide price discovery for a range of renewable gases</p>

across a broad application, which will help inform subsequent deployment policy settings for renewable gas.

Electricity and gas network businesses are playing a central role in the energy transition. They are the platforms on which the transition is playing out, and are playing an increasing role in 'keeping the lights on' as the transition unfolds.

A critical enabler for networks to continue to invest, so they can play their optimal role in the transition, is a dependable and fit for purpose regulatory framework. The legacy regulatory framework may need to evolve so that it remains fit for purpose for the transition. This includes considering:

- the need for greater flexibility to adjust to a rapid transition (e.g. in areas like changes in investment needs or optimal tariff structures)
- how best to give weight to the need for early or 'anticipatory' grid investment where this would be more efficient or significantly lower risk than later investment, and
- enhancing the checks and support to ensure that key regulatory decisions are financeable and investable throughout the transition.

There is clear value at this stage of the energy transition in market bodies and governments working together with industry to ensure the regulatory framework for network infrastructure remains fit for purpose to deliver the energy transition for customers. A key requirement for the attraction and retention of significant private capital investments that support the transition will be a regulatory framework that clearly provides investor incentives, confidence and predictability, enabling long-lived network investments with costs recovered over the course many decades.

We note the interactions between efforts to facilitate investment and the other questions asked in this discussion paper. For example, we note that improving social license (Q 11) or getting clear and aligned policy on the transition to both greater uptake of electrification

		<p>(Q 3) and renewable gases (Q 5), will all contribute to a broader policy and regulatory environment that facilitates the smooth deployment of capital into the energy transition.</p> <p>We also note that efforts to support investment into the energy transition should benefit all customers and not to leave vulnerable customers behind. This includes paying attention to the equity considerations noted in Question 9 below.</p>
<p>2.</p>	<p>What actions are required to ensure Australia’s energy systems can enable increased electrification, while maintaining equity, reliability and security?</p>	<p>The energy transition involves a seismic shift in capital and technologies, as well as consumers’ behaviours. As noted in response to Question 1, this will require the regulatory framework and environment to evolve to keep pace with the transition.</p> <p>It will also require network businesses to evolve and taken on new roles and approaches, which should be supported by governments and market bodies. For example:</p> <ul style="list-style-type: none"> • electricity transmission and other networks must deliver significant amounts of new transmission to support renewable generation and storage, and are increasingly required to provide new system security services to support the power system, as well as to plan and operate their networks in an increasingly dynamic and challenging environment • electricity distribution networks must facilitate high proportions of consumer energy resources (CER), such as rooftop solar, batteries and electric vehicles (EVs), and can play a larger and more optimal role in the transition as infrastructure providers for community batteries, EV chargers and renewable energy zones embedded within the distribution system (DREZs) • gas distribution networks must facilitate the transition to renewable gases over time, particularly for industries that cannot electrify at an efficient cost or at any cost. <p>A range of actions could be taken to help facilitate the increased electrification and decarbonisation of energy networks:</p>



		<ul style="list-style-type: none"> • continued support for the roll-out of large and transformational electricity transmission projects • support for the continued roll-out of community batteries as a scale-efficient storage solution that has significant co-benefits for customers within electricity distribution networks • critical work to underpin the efficient continued roll-out of CER, including defining the role of the distribution system operator, technical standards and compliance • removing barriers to the implementation of DREZs • support for disadvantaged consumers to access the benefits of CER and energy efficiency • support for the transition to renewable gas (see further detail in response to Question 5). <p>Factors that should be considered relating to maintaining equity throughout the transition are set out in response to Question 9.</p>
3.	<p>What insights do you have on the pace, scale and location of electrification, and how to embed this in system planning?</p>	<p>We are still in the early stages of the energy transition, and accordingly the possible pathways that the transition may take are varied. This is why scenario-based modelling is valuable for system and network planning through uncertainty. The Australian Energy Market Operator’s Integrated System Plan (ISP) considers a range of future scenarios and determines the optimal path for electricity transmission and large-scale generation and storage infrastructure needed for the transition to net zero.</p> <p>The ISP is the appropriate place to embed the pace, scale and location of electrification into system planning. We note however that the ISP in its current form does not adequately account for the full range of potential demand and electrification scenarios, nor does it adequately address long term renewable energy storage. The ISP should evolve to represent a cautious forward-looking outlook for electricity demand, informed by federal and state Government policies and evolving consumer choices.</p>



		<p>The recent DCCEEW review of the ISP included a recommendation, accepted by Ministers, to enhance demand forecasting within the ISP. ENA agrees that this is the appropriate place to undertake further work to build a fuller understanding of evolving electricity demand as the energy system decarbonises. ENA recommends that demand forecasting in the ISP should be improved, consistent with the actions set out in section 2.2 of the Ministers’ response to the ISP review.</p>
4.	<p>How can electrification efforts be sequenced to align with expansion of electricity generation and network capacity?</p>	<p>The ISP remains the most appropriate overarching perspective on the evolving electricity demand landscape and the coordination of generation and network capacity to meet those needs. This can only be achieved if the ISP itself evolves, consistent with the recent ISP review, to:</p> <ul style="list-style-type: none"> • better integrate gas market conditions/expectations and jurisdictional policies • enhance energy demand forecasting (noted in Q 3 above) • better integrate and co-optimize the role that actions embedded within the distribution networks can play in meeting emissions goals • better align with state and territory planning and policy, and • better incorporate and identify community and engagement sensitivities for major projects. <p>Many jurisdictions also play a critical role in coordinating generation and network infrastructure to decarbonise the electricity system and to meet the evolving electricity demand landscape. Most jurisdictions also influence electricity demand through regional, resources, industry, transport and other policy areas. Clear and transparent policy development processes are essential to ensure a steady ‘direction of travel’ that allows for effective long-term planning for electricity and gas network infrastructure.</p> <p>As noted in the covering letter, efforts towards electrification will need to be effectively sequenced alongside the transformation of the electricity grid to ensure that emissions are reduced, and that coal generation is retired on schedule.</p>



5.	What policy settings and certainty are required to support a fair, equitable and orderly transition for the decarbonisation of both natural gas and liquid fuels?	<p>There is a critical need for clear policy settings across the gas sector. There will be a role for renewable gases as we strive towards net zero emission. This is evident for industrial processes that either use gaseous fuel as a feedstock, such as ammonia or fertiliser production or use it to achieve high temperatures such as cement and brick kilns. To keep heavy industry and its jobs in Australia, the initial focus for the decarbonisation of the gas sector must be to develop a pathway to renewable gas, leveraging the critical role of gas networks in that pathway.</p> <p>We are faced by three pressing challenges:</p> <ul style="list-style-type: none">• ensuring the availability of gas over the short to medium term to meet demand for the fuel, consistent with the outlook in the recent Gas Statement of Opportunities (GSOO). This issue may also be relevant to the resource sector plan.• supporting the evolving role of gas for electricity generation highlighted by the draft 2024 ISP. This will require careful attention to the appropriate market settings as well as gas network planning and investment settings to support the gas and electricity infrastructure required to deliver on this need for additional gas fired peaking generation, and• supporting the development of and staged transition to the use of renewable gases such as biomethane and hydrogen, particularly for industrial and feedstock use. <p>The transition to renewable gases will require concerted policy support over time, including:</p> <ul style="list-style-type: none">• immediate action to:<ul style="list-style-type: none">○ enable the certification of biomethane in addition to the ‘guarantee of origin’ of renewable hydrogen,○ recognise in the NGERs reporting framework the reductions in emissions from renewable gases distributed through shared infrastructure, and
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		<ul style="list-style-type: none"> ○ develop a national bioenergy strategy that identifies how the limited bioenergy resource can best serve Australia’s overall interests in reaching net zero considering feedstock, biomethane demand and liquid biofuel demand • short term action to build renewable gas production capacity through the extension or expansion of the Hydrogen Headstart scheme to include biomethane projects and further hydrogen applications, and • medium term actions to design and implement a renewable gas target to begin operation in the late 2020s or early 2030s. <p>ENA is engaging consultants to consider the detailed policy design of renewable gas certification and recognition within NGERs. We would welcome further discussion with DCCEEW once this work is done to help progress this process.</p>
6.	What actions are required to establish low carbon fuel industries in Australia, including enabling supply and demand, and what are the most prospective production pathways?	See response to Question 5.
7.	Are the proposed policy focus areas for managing the liquid fuels transition the correct areas to focus on, and what is missing?	See response to Question 5.
8.	What actions are required to ensure workforce requirements for the energy	The workforce needs to support for the transition are significant. There are areas of general and acute need. Research consistently shows there is likely to be a skills ‘gap’ for the



	<p>transformation are met, while supporting equitable outcomes?</p>	<p>workers needed to implement and manage the transition to net zero emissions in the energy sector.</p> <p>ENA’s member businesses consistently lead innovative outreach and training programs to support new apprentices into the workforce, with a particular emphasis on diversity. It will be critical to ensure that highly skilled positions that are critical for the secure, reliable and affordable transition to net zero are able to be efficiently sourced and filled. This includes roles with specific skills, such as network control room operators and power system engineers and network planners.</p> <p>Governments (federal and state) should act swiftly on migration, education, upskilling and cross-skilling to ensure a flexible and adaptable workforce that is able to evolve rapidly with the needs of the energy system transition.</p>
<p>9.</p>	<p>What actions are required to ensure better energy outcomes for people and businesses, and maximise their benefit from the energy transformation?</p>	<p>The energy system and energy transition are capital intensive endeavours. The transition will require businesses in the energy supply chain, and households, to invest in new generation technologies, new energy appliances (e.g. electric vs gas or renewable gas) as well as energy management and energy efficiency technologies. A wide range of policies, together with existing energy markets, will drive the transition. This creates significant risks that some parts of the community are ‘left behind’ or pay a disproportionate and inequitable share of the costs of the transition.</p> <p>Governments and market bodies should pay close attention to the equity outcomes inherent in the decisions they make. Several factors are important to consider:</p> <ul style="list-style-type: none"> • <i>Whether a policy is appropriately targeted.</i> For example, a scheme or arrangement to incentivise the uptake of a particular technology type could disproportionately benefit those with sufficient capital to co-invest, leaving behind those without • <i>Who pays for a policy.</i> For example, a policy could be paid for by electricity customers (which disproportionately impacts vulnerable customers) or by taxpayers, which can be a more progressive funding source to achieve a policy outcome.



		<ul style="list-style-type: none"> • <i>When customers pay for infrastructure.</i> For example, some long-lived infrastructure assets could reduce in utilisation over time and new infrastructure may require higher cash-flow requirements in early years to ensure they can be financed. Careful thought is required to balance when customers pay for infrastructure and why, so that customers' long-term interests are promoted and broadly aligned with when they benefit. <p>The National Electricity and Gas Objectives remain a touchstone for ensuring that decisions are taken in a manner that contributes to the long-term interests of consumers, balancing the sometimes competing goals of safe, secure, reliable, low emissions and low cost energy supply.</p>
10.	<p>What social licence and circular economy aspects should be considered as part of the pathway for the energy transformation?</p>	<p>The 'social license' for the energy transition, and for electricity transmission infrastructure in particular, is a critical enabler of the transition. This has been consistently recognised, and most recently by the Australian Energy Infrastructure Commissioner (AEIC) in his review of community engagement practices.</p> <p>There is a clear role for government to support a broader narrative on the energy transition, consistent with Recommendation 6 from the AEIC's review. A clear and consistent narrative underpinning the energy transition will help all operators within the energy supply chain to navigate change with their customers and communities.</p> <p>Governments should also continue to work towards reducing the consultation burden on communities by streamlining environment and planning approvals processes. Environment and planning approvals are increasingly identified as key 'bottle necks' or hurdles in the process for the development of major energy infrastructure projects. Extended timeframes for these approvals lengthen the duration that communities and landholders are labouring under uncertainty or anxiety about the future.</p> <p>Energy businesses should also be mindful of the cumulative engagement burden on landholders and communities, and should strive to conduct their social license, community and landholder engagement using genuine best practices. ENA and its members support</p>



		<p>the ongoing industry led ‘raising the bar’ on best practice in social license and landholder engagement through the Energy Charter.</p>
<p>11.</p>	<p>What are other gaps in Australia’s energy sector decarbonisation policy and what actions are required to address them?</p>	<p>Sustainable development is more than net-zero, and setting local targets can result in offshoring industries where the emissions saved in one country or region are allocated to another and then imported again via resources and materials. The UN Environment Programme recommends a decoupling process where economic growth and improvements in wellbeing don’t necessarily require an increase in resource consumption.</p> <p>Applying scenario modelling shows that continuing as per historical trends will see resource consumption increase by a further 60 per cent by 2060. Decoupling requires considering several ways to move away from historical trends towards a more sustainable transition. This includes:</p> <ul style="list-style-type: none"> • Food and land shift, • Resource efficiency shift and • Climate and energy shift. <p>Focussing solely on net-zero will only achieve a partial sustainable transition as there are many areas between resources and energy that overlap. For example, the extraction of more minerals required to build out the renewable energy sector.</p> <p>Policies to assist Australia’s energy export and goods import industries would need to consider carbon leakage. ENA supports this work as a priority. It is understood that DCCEEW is undertaking a carbon leakage review and that the review is due to report by 30 September 2024.</p>

