

Super-powering the energy transition: A policy blueprint to facilitate superannuation investment

Executive Summary

Australia's energy transition will require investment on a massive scale – around A\$12 billion a year on average between now and 2050 in the electricity sector alone¹ and more than A\$40 billion a year to decarbonise other sectors of the economy and grow energy-intensive export industries.²

Superannuation investors have worked together to identify policy solutions that could enable significant investment into Australia's energy transition while delivering strong risk adjusted returns for working people's retirement savings.

Superannuation funds have a clear-eyed focus on achieving the best risk-adjusted returns, in line with our duty to act in the best financial interests of members.

Since 1990, industry superannuation funds have been investing in infrastructure, with a track record of investment in businesses delivering essential services to the community. These now include growing Australian and global investments in clean energy and related businesses, such as wind and solar generation, transmission and distribution, batteries and hydrogen.

With the right policy settings, transmission, batteries and sustainable aviation fuel are the earliest opportunities for superannuation investment in Australia's energy transition.

Investment in these key elements of transition can deliver strong risk adjusted returns for working people's retirement and open up longer-term investment opportunities in other sectors which will put Australia on the path to becoming a clean energy superpower.

Accelerating superannuation investment into Australia's energy transition means the creation of jobs and avoided costs for households and communities. These should be good quality jobs with fair labour standards.

The transition can only be delivered through a coordinated policy approach between state and Commonwealth governments. There is global competition for capital, with governments across the world, including the United States, Canada, Korea and in the European Union, introducing significant policy packages and incentives to attract investment in clean energy at scale.

This does not mean Australia needs to replicate the approach of other countries. Rather we should make the most of our comparative advantages with an ambitious and proportionate response, including policies, such as those outlined in this blueprint, to make Australia a renewable energy superpower.

¹ Australian Energy Market Operator (AEMO) Integrated System Plan (2022). AEMO's Step Change scenario estimates investment of \$320 billion is required by 2050 to decarbonise the National Electricity Market (NEM).

² Australian Industry Energy Transitions Initiative (AIETI) (2023). The "coordinated action with exports sensitivity" scenario estimates that investment of \$1.3 trillion will be needed in energy and industry between 2025 and 2050.

Who we are



Key recommendations

Deliver new transmission lines to connect renewable energy zones with consumers

Transmission is *the* foundation for Australia to fulfill its potential as a green energy superpower and a key enabler of other areas of energy transition.

Australia needs 10,000 km of transmission lines to be built by 2050 – that is more than twice the distance across Australia at its widest point (4,000 km) - much of which is urgently needed to enable investment in renewable energy generation.

To accelerate the roll out of transmission we recommend:

Enabling distribution network service providers, with the right performance, safety and workforce record, to deliver greenfield transmission projects.

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- Distribution network service providers are an important part of the energy system and have the capability and workforce to deliver significant new transmission infrastructure.
- Backed by industry superannuation investors, distribution network service providers, with the right performance, safety and workforce record have the capability to deliver new transmission projects to connect thousands of houses and businesses to renewable energy and deliver jobs.

Reducing the impact of new transmission infrastructure on consumers' energy bills through concessional finance or availability payments for new projects.

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- The Commonwealth government's Rewiring the Nation program could enable this approach.
- Concessional finance or availability payments negotiated case-by-case at the deal level to ensure best value for tax-payers: delivering adequate returns for superannuation fund members and managing cost of living pressures for consumers.

Developing a national plan for the roll-out of transmission infrastructure, to:

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- cut lengthy planning and approval processes
- carry out early consultation with affected communities
- provide fair compensation to landowners
- explore opportunities for communities to benefit from new clean energy infrastructure, and
- attract and train the skilled workers Australia needs to deliver the energy transition.

FIGURE 1

Our policy recommendations will ensure that investors and governments can deliver critical transmission infrastructure without households carrying the burden of excessive energy bills. Policies that enable superannuation investment in just one transmission project could:

- enable delivery of a project worth more than \$1.3 billion
- deliver more than 2,900 jobs
- connect approximately 8GW of renewable energy projects to households and businesses.



Accelerate investment in batteries

Batteries are the key piece of the clean energy puzzle – providing secure, reliable energy for households, industry and the community as we transition to more intermittent renewable sources of energy.

Under current regulations and market design, battery revenues are dependent on volatile intra-day electricity pricing. This does not reflect the value batteries provide to the entire energy system.

The expansion of the Commonwealth Government's Capacity Investment Scheme is a significant and welcome contribution to underwriting the grid scale storage capacity required.

Medium and community scale batteries can make a significant contribution to the security of Australia's energy transition, particularly in supporting uptake of household rooftop solar.

Household rooftop solar has the potential to be a major feature of Australia's energy transition. But without being linked to a battery, rooftop solar can add to grid instability. Community batteries are around twice as cost-effective per kilowatt-hour as household battery installations and are an early opportunity for superannuation investment.

To enable investment, we recommend:

Delivering the expanded Capacity Investment Scheme.

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- Ensure that the design and implementation of the Scheme supports the critical role of battery storage in the transition, including community and distribution scale batteries.

Incentivising investment in community and distribution-level batteries through regulatory change.

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- For example, by making it possible for network providers to lease out spare capacity in community batteries to the grid.



Ausgrid community battery

BOX 1

Securing the transition with investment in batteries

With the policy recommendations in this paper, superannuation investment in batteries could deliver returns for working people's retirement savings and:

- help ensure secure energy supply as we transition to renewable energy sources
- provide secure renewable energy supply essential to the industries of the future that will make Australia a green energy superpower, and
- enable homeowners to install more solar and feed this solar energy into the grid, to support home electrification and electric vehicle charging.

These policy settings could deliver approximately A\$4 billion of batteries investments in the near term and provide 3GW of firming capacity across utility-scale and community batteries to benefit local communities and the wider energy system.

Develop a local sustainable aviation fuel industry

Australians have few alternatives to flying to connect with work, holidays and loved ones. Australia's domestic aviation industry is targeting net zero emissions by 2050 and developing a local sustainable aviation fuel (SAF) refining capability will be critical.

An Australian biofuels industry, including SAF, could contribute up to \$10 billion to annual gross domestic product and create approximately 26,000 jobs by the 2030s.

Initial SAF production will rely on biofuel feedstocks, while new technologies develop and airlines manage the transition of their fleets.

Right now, Australian-produced feedstocks which are excess to Australian food needs are exported overseas.

Without a domestic production capability, SAF will be produced overseas, using Australian feedstock, and shipped back to Australia. This could diminish the carbon reduction benefit of using SAF and could mean Australia misses out on the jobs and economic benefit of a new value-add industry.

To enable investment and deliver jobs in new, green super-powered industry we recommend:

Introducing a production tax credit to help develop a domestic industry.

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- The US Inflation Reduction Act includes production tax credits for SAF, and these are expected to bring the wholesale market price of SAF down by more than 25 per cent by 2027.

Establishing a certification framework.

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Certification should be initially based on volume then transition to incorporate lifecycle greenhouse gas assessments over time.

Developing a market which enables credits to be recognised and traded.

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- Together these will enable an appropriate volume-based SAF blending target to be achieved.

The right policies can help enable investment in early areas of opportunity and deliver strong risk adjusted returns for working people's retirements. They will also open up opportunities in other sectors which will put Australia on the path to becoming a clean energy superpower.



SUMMARY OF RECOMMENDATIONS

Transforming our electricity system

1	Deliver new transmission lines to connect renewable energy zones with consumers	Responsibility
1.1	Enable distribution network service providers, with the right performance, safety and workforce record, to deliver greenfield transmission projects.	 
1.2	Reduce the impact of new transmission infrastructure on consumers' energy bills through concessional finance or availability payments for new projects.	 
1.3	Develop a national plan for the roll-out of transmission infrastructure, to: <ul style="list-style-type: none"> • cut lengthy planning and approval processes • carry out early consultation with affected communities • provide fair compensation to landowners • explore opportunities for communities to benefit from new clean energy infrastructure, and • attract and train the skilled workers Australia needs to deliver the energy transition. 	 
2	Accelerate investment in batteries	Responsibility
2.1	Deliver the expanded Capacity Investment Scheme.	 
2.2	Incentivise investment in community and distribution-level batteries through regulatory change.	 
3	Provide longer-term certainty for investment in renewable energy generation	Responsibility
3.1	Work together to manage and reduce system planning and integration risks in the National Electricity Market.	 
3.2	Procure Power Purchase Agreements to provide long-term stable revenue streams for renewable electricity, to complement the expanded Capacity Investment Scheme.	
3.3	Work with port owners to develop or upgrade existing ports to support the transport and logistics needed to enable the construction of offshore wind farms.	 
3.4	Support investment in landfill gas projects by providing clarity on their eligibility to generate Australian Carbon Credit Units beyond 2026.	

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SUMMARY OF RECOMMENDATIONS (CONTINUED)

Reducing transport emissions and supporting net zero mobility

4	Develop a local sustainable aviation fuel industry	Responsibility
4.1	Introduce a production tax credit to help develop a domestic industry.	●
4.2	Establish a certification framework.	●
4.3	Develop a market which enables credits to be recognised and traded.	●
5	Support delivery of electric vehicle charging infrastructure	Responsibility
5.1	Remove regulatory barriers to investment in kerbside electric vehicle charging infrastructure.	● ●
5.2	Drive the uptake of electric vehicles in Australia through continued consumer incentives for new electric vehicle purchases and legislated nationwide fuel efficiency standards.	● ●

Planning for the transition and growing net zero industries

6	Support the growth of net zero industries and investment opportunities through ambitious, long-term policy	Responsibility
6.1	Ensure that sector pathways and the national net zero road map, currently under development, are clear, comprehensive, credible, developed in consultation with investors and backed by long-term policies.	●
6.2	Support the development of early stage, higher risk net zero technologies and industries through publicly funded research and development as well as public financing facilities.	● ●
6.3	Support the growth in sectors where Australia can lead, such as advanced manufacturing of generation and storage technologies, refining and processing critical minerals, renewable hydrogen and green metals like green iron, steel and aluminium.	● ●
6.4	Develop a coordinated national approach to increasing the supply of skilled workers essential to the energy transition, which could include enhancing existing wage subsidies or introducing tax credits for apprentices in critical clean energy occupations delivering good quality jobs with fair labour conditions.	● ●
6.5	Explore opportunities to promote the use of local content in clean energy supply chains and support emerging industries capable of supplying Australian manufactured inputs – such as steel, aluminium and critical minerals.	● ●

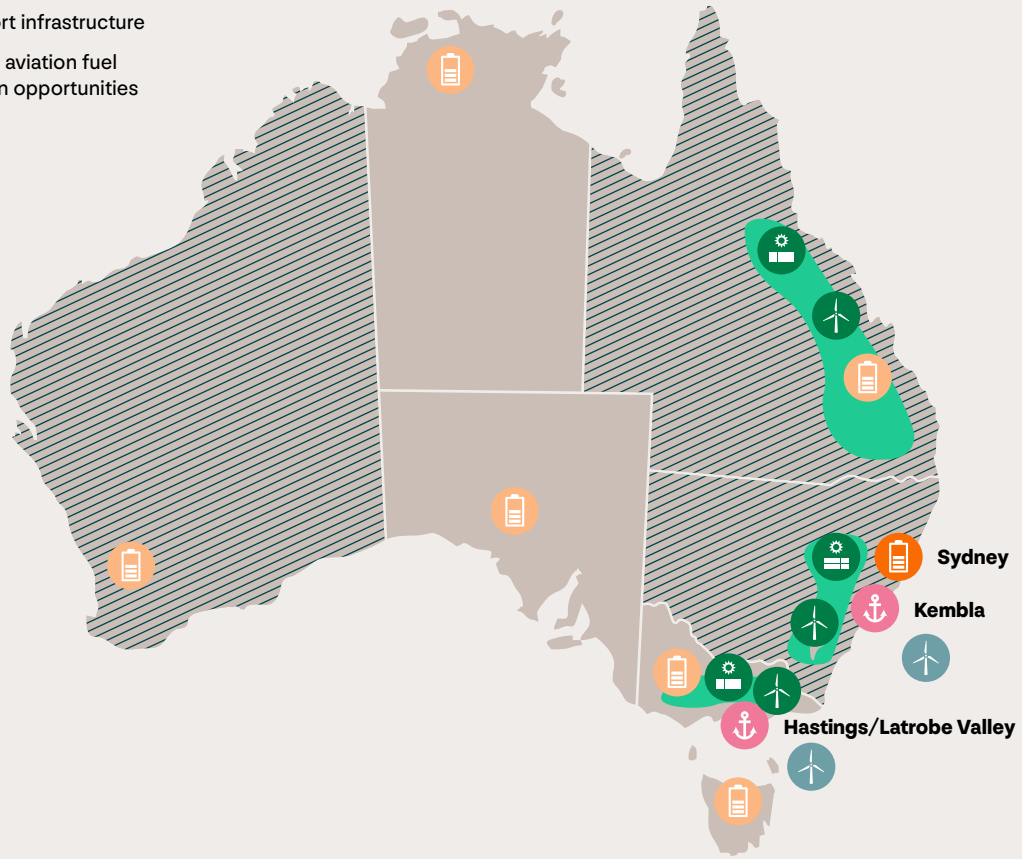
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FIGURE 2

THE RIGHT POLICIES CAN SUPER-POWER INVESTMENT

- Transmission to Renewable Energy Zones
- Batteries
- Enabling port infrastructure
- ▨ Sustainable aviation fuel supply chain opportunities



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