

16 September 2025

Australian Council of Learned Academies submission on the Productivity Commission Interim Report: Investing in cheaper, cleaner energy and the net zero transformation

The [Australian Council of Learned Academies \(ACOLA\)](#)¹ welcomes the Productivity Commission's Interim Report, *Investing in cheaper, cleaner energy and the net zero transformation*. The report will be a timely and important contribution to Australia's national conversation on climate and energy and underscores the scale of the opportunity before us to build a cleaner, more productive and resilient economy. We thank the Productivity Commission for the opportunity to provide the following feedback.

Economic goals must be balanced with social and environmental outcomes

Australia's energy transition is well underway. While the opportunities are immense, we must ensure the path forward is fair, inclusive and informed – enhancing, not compromising, the wellbeing of our communities and the health of our environment. Economic productivity and security is a vital outcome, but it must be pursued alongside broader goals of human health, social equity, and ecological sustainability. These dimensions are essential to building public trust and engagement and avoiding the ecological degradation that has accompanied past industrial transitions. Achieving these outcomes will require deliberate effort and informed decision-making. **We encourage the Productivity Commission to consider how human health, social equity and ecological sustainability can be reflected in the final report.**

There is a strategic role for research in supporting the energy transition

With abundant renewable resources and strong institutional capabilities, Australia is well-positioned to lead globally in energy transition research and innovation. Realising these opportunities requires more than policy reform—it demands a robust, coordinated and sustained research agenda that addresses the complex scientific, technical, social, health, and environmental dimensions of the transition.

While the Interim Report acknowledges that governments “will need to support more research” (p.10) and refers to the need to “subsidise research and development relating to clean technologies” (p.25), it gives limited attention to the broader role of research and innovation in enabling a successful energy transition.

This omission is significant. The transition to net zero involves profound changes to Australia's energy systems, infrastructure, communities, and environment. While we may understand in broad terms the need to shift to renewable electricity and to electrify all other energy use, the solutions to many of the challenges facing the energy transition scientific, technological, social, health, and ecological—are not yet known. Evidence and knowledge play a critical role in informing policy decisions, guiding infrastructure and investment decisions, and supporting innovation across sectors. It also helps ensure that responses to the transition are inclusive and responsive to communities, particularly people in vulnerable circumstances. **Supporting, embedding and prioritising research across all aspects of the transition will be essential to ensuring that Australia's response is informed, adaptive, and aligned with the needs of its people, economy, environment, and security.**

¹ ACOLA is the forum whereby Australia's Learned Academies come together to contribute expert advice to inform national policy and to develop innovative solutions to complex global problems and emerging national needs. Through the Learned Academies, ACOLA has access to more than 3,200 of Australia's greatest minds to bring together critical thinking and evidence to inform robust policy decisions.

One of ACOLA's submissions to the Strategic Examination of R&D (SERD) Review² highlights that public investment in energy transition research has declined significantly over the past decade and remains among the lowest in the OECD. Even when accounting for indirect support via the R&D Tax Incentive, Australia ranks poorly compared to international peers. Whilst energy transition is acknowledged in the recent SERD issues papers, **strengthening Australia's investment in research capability will be essential to ensure the transition delivers enduring economic, social, and environmental benefits and that Australia remains competitive globally.**

ACOLA has a strategic framework for future Australian energy transition research

The Australian Energy Transition Research Plan (Research Plan)³, developed by ACOLA in 2021 and undergoing a revision in 2026, provides a strategic framework to guide research investment decisions. It identifies urgent and strategic research priorities across three key domains:

- **Energy System Dynamics:** Technology, transition pathways and systems integration
- **Social Engagement Dynamics:** Policy, regulation, communication, engagement, and social licence.
- **Transition Dynamics:** Governance, industry and risks.

Further, the Research Plan provides evidence on Australia's investment in energy research and development, as well as recommendations to enable improved energy research translation.

- **Research Translation:** Bridging science and implementation.
- **Funding Analysis:** Quantum and comparison of energy R&D.

These reports highlight that Australia's unique geography, energy mix, and socio-political context demand local solutions informed by local research, and cannot rely solely on international research. ACOLA's Research Plan recognises the importance of place-based approaches. Regional communities, Indigenous peoples, and local governments all play critical roles in the transition, and research can help ensure we are responsive to their diverse needs and contexts.

To ensure that Australia's energy transition is guided by evidence, is economically efficient and delivers sustainable, inclusive and long-lasting benefits, ACOLA encourages the Productivity Commission to consider prioritising the research and innovation needed to support Australia's energy transition across all disciplines. Research investment would also align with Priority 1 of Australia's National Science and Research Priorities—transitioning to a net zero future.

A well-resourced and prioritised research agenda is essential to ensuring that this transition is evidence-based, inclusive, and delivers long-term benefits for all Australians. ACOLA and our Australian Energy Transition Research Plan Steering Committee would be pleased to discuss the submission or details of the Research Plan. Please contact [REDACTED].

Kind regards,

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² <https://acola.org/acola-aetrp-response-to-strategic-examination-of-rd-review/>

³ <https://acola.org/energy-transition-research-plan/>