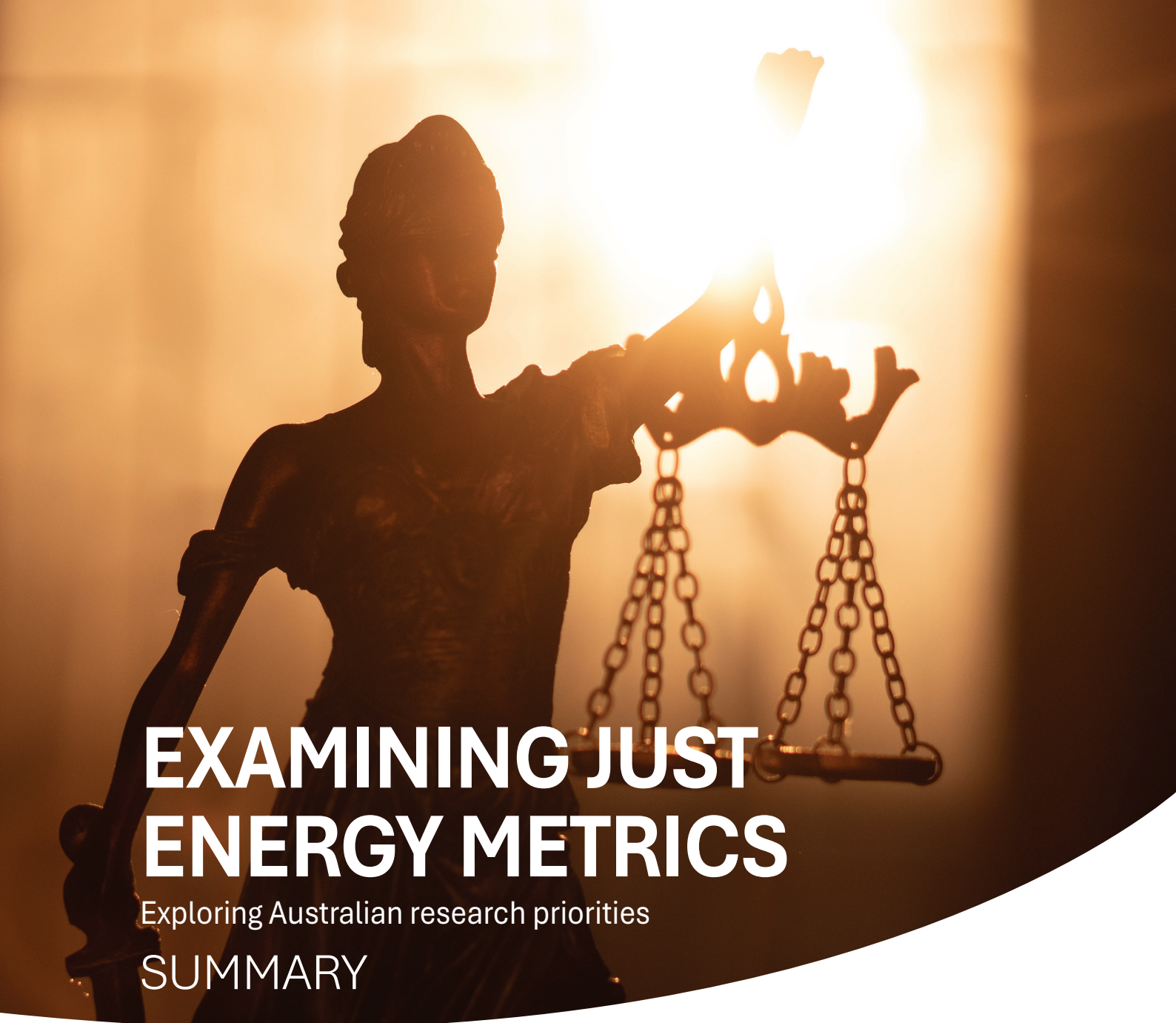




EXAMINING JUST ENERGY METRICS

Exploring Australian research priorities

SUMMARY

Australia's transition to renewable energy is transforming the nation's economy, communities and environment. Despite significant technological progress, there is no consistent way to measure how fairly the benefits and burdens of the energy transition are shared. Without clear metrics, governments risk reactive and costly decisions. By developing Australian-specific metrics grounded in evidence, collaboration, and co-design, Australia can better assess where inequities occur, target interventions, and build trust across communities.

ACOLA's 2025 report, *Examining JUST energy metrics: Exploring Australian research priorities*, examines how justice can be measured across Australia's energy transition. It identifies research gaps, compares international approaches, and outlines priorities for developing fair and inclusive metrics to guide Australia's energy transition.

This factsheet summarises the key messages from the full report, available at: <https://acola.org/examining-just-energy-metrics-report>



The need for justice metrics

Energy justice refers to the equitable allocation of rights and responsibilities among governments, communities, and the energy sector, ensuring equal participation in the energy system and addressing existing social and economic disadvantages. It offers a way to embed fairness, participation and accountability into energy planning and policy.

Why measuring justice matters

A fair energy transition depends on **clear, calculable and consistent metrics** that show who benefits, who bears costs, and how decisions are made. Measuring justice outcomes can:

- help improve social benefit sharing, reduce regulatory burdens, de-risk and shorten project lead times, and create cost savings and system-wide efficiencies
- help align community benefits with state and national objectives
- ensure that no community or group is left behind in the transition.

The JUST framework

The JUST framework – spanning Justice, Universality, Space, and Time – provides a coherent way to identify and apply metrics to guide an inclusive, evidence-based energy transition across four interconnected pillars:



Justice

Ensuring equitable distribution of costs and benefits (distributive justice), transparent decision-making (procedural justice) and recognition of diverse perspectives (recognition justice).



Universality

Extending fairness across global supply chains and lifecycles, including restorative actions that address historical or future injustices.



Space

Recognising that justice issues differ across geographies and communities.



Time

Considering how benefits and risks evolve across generations.

These pillars guide the development of measurable, meaningful, reliable and cost-effective metrics and help identify where fairness, participation, and accountability can be strengthened in Australia's energy transition.

Examples of JUST metrics in action

Key metrics examined through Australian and international case studies demonstrate how fairness can be embedded in both policy and practice. These include:

- **Regional Strategic Impact Assessments** – strengthen *distributive justice* by mapping cumulative regional benefits and risks, ensuring fairer project outcomes.
- **Stakeholder engagement and participation metrics** – improve *procedural justice* by tracking how inclusive and effective decision-making processes are.
- **Indigenous engagement metrics** – advance *recognition justice* through co-design, self-determination and shared ownership.
- **Renewable energy recycling and employment metrics** – link *restorative justice* with circular economy goals, addressing end-of-life waste and supporting regional jobs.
- **Consumer Energy Resources metrics** – capture *spatial justice* by assessing how households and communities participate in local energy markets and peer-to-peer trading.
- **Community wellbeing indices** – measure *justice over time* by tracking social and economic outcomes over time.

The insights provided through the case studies identified in ACOLA's full report highlight potential avenues for future Australian energy transition research. While Australia can learn from international examples, our unique geographic, economic and social contexts will demand a tailored, locally relevant, cohesive, scalable, and interdisciplinary research agenda to explore JUST metrics relevant for Australia.

Developing Australian-specific metrics

Applying the JUST framework to the Australian context requires collaboration across disciplines and jurisdictions. Early analysis shows that:

- 1 The most urgent and ready-to-use metrics relate to **stakeholder engagement and participation**, which build on existing consultation frameworks.
- 2 **Regional Strategic Impact Assessments** and **Indigenous engagement metrics** are high priorities but need coordination, data and trust-building.
- 3 Longer-term opportunities include metrics for **recycling, employment and community wellbeing**, which can support restorative justice and justice-over-time goals.

Developing a balanced suite of short- and long-term metrics will guide Australia's just and inclusive transition to net zero by 2050.

Key research priorities

With this in mind, the *Examining JUST energy metrics* report identifies eight research questions – four urgent and four strategic – to advance Australia's energy justice. The high-level themes of these research questions include:

Urgent priorities

- Define what justice means in the Australian energy transition.
- Strengthen and leverage data and processes for Regional Strategic Impact Assessments.
- Develop stakeholder engagement and benefit sharing metrics.
- Co-design Indigenous-led metrics for ownership and participation.

Strategic priorities

- Develop and operationalise the JUST framework in an Australian context.
- Integrate restorative justice and circular economy metrics.
- Explore spatial and equity issues in peer-to-peer energy systems.
- Track social outcomes over time through community wellbeing indices.

Building the foundations for energy justice in Australia

The eight research questions identified in the *Examining JUST energy metrics* report provide a practical roadmap for strengthening fairness, accountability and participation in Australia's energy transition.

By focusing on both urgent and longer-term research priorities, these questions help:

- define what justice means in an Australian context
- guide where investment and policy attention should be directed
- connect technical innovation with social and community outcomes
- ensure that decision-making processes are transparent, evidence-based and inclusive.

Together, they set the foundation for a coordinated, interdisciplinary research agenda that supports a just, trusted and equitable transition.



About the Australian Energy Transition Research Plan

The Australian Energy Transition Research Plan, developed by the Australian Council of Learned Academies (ACOLA), provides a national framework to guide Australia's transition to net zero emissions through a coordinated, interdisciplinary research effort. The Research Plan identifies urgent and strategic research priorities that reflect Australia's unique environmental, economic and social contexts. It aims to strengthen domestic research capacity, promote equity and inclusion, and ensure research investment is targeted, collaborative and impactful. By connecting academia, industry, government and communities, the Research Plan supports evidence-based policy, innovation and participation in the clean energy transition.

Access the Research Plan here: <https://acola.org/energy-transition-research-plan/>

By providing a forum that brings together great minds, broad perspectives and knowledge, ACOLA is the nexus for true interdisciplinary cooperation to develop integrated problem solving and cutting edge thinking on key issues for the benefit of Australia.

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