Australian Government
Indigenous Land and Sea Corporation

The ILSC GROUP

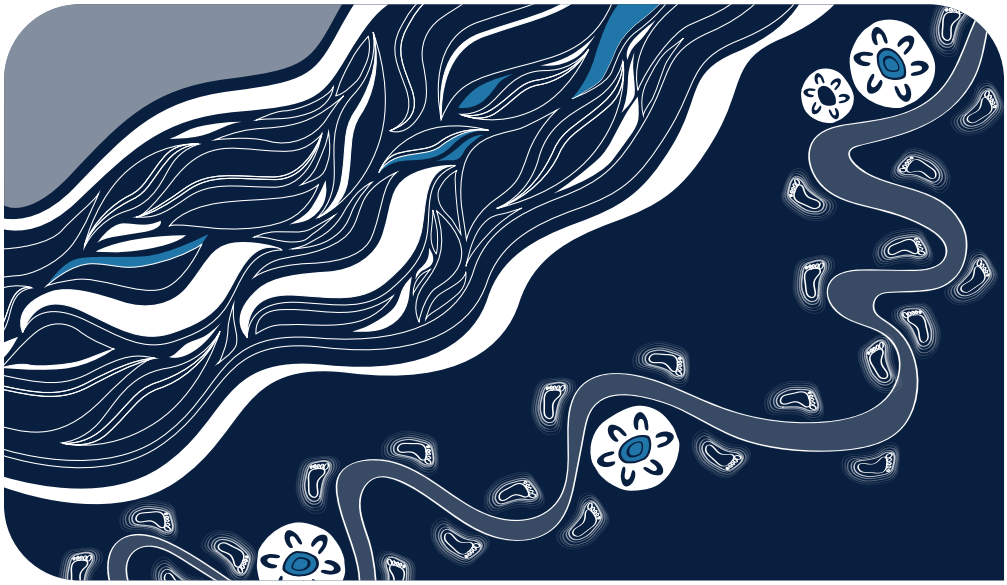
PEOPLE. COUNTRY. OPPORTUNITY.

Sector Leadership

Renewables and Clean Energy Companion Reader

A guide to First Nations contribution to the renewables and clean energy sector

Acknowledgement of Country



Artwork by Maisie Crawford-Owers.

In all our activities we pay our respect to the Traditional Owners and Custodians of the lands, waters and skies on which we live and work. We honour the resilience and continuing connection to Country, culture, and community of all Aboriginal and Torres Strait Islander people across Australia. We recognise the decisions we make today will impact the lives of generations to come.

A note on language

The terms 'Aboriginal and/or Torres Strait Islander', 'Aboriginal', 'Indigenous' and 'First Nations' may be used interchangeably throughout this document. Using these terminologies, we seek to acknowledge and honour diversity, shared knowledge and experiences as well as the right of individuals and communities to define their own identities. The C in Country is capitalised throughout this document as Country for Aboriginal and Torres Strait Islander people is a strong place of connection which provides the upmost significance to their people and means more than physical land. In this document, Country may refer to land, freshwater and/or seawater.

Aboriginal and Torres Strait Islander readers are advised that this publication may contain the names or images of people who have died.

Established in 1995 under the *Aboriginal and Torres Strait Islander Act,* we provide for the contemporary and future land needs of Indigenous people, particularly those unlikely to benefit from Native Title or Land Rights. We work with our Indigenous partners to grow their economic, environmental, cultural and social capital by supporting their acquisition and management of land and water. In redressing dispossession, we provide for a more prosperous and culturally centred future for Indigenous people.

The Indigenous Land and Sea Corporation is a Commonwealth entity under the *Public Governance, Performance and Accountability Act 2013.*

www.ilsc.gov.au
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Cover photo: Original Power crew install solar panels at West Island.

Contents

National Indigenous Land and Sea Strategy

In 2022, the Indigenous Land and Sea Corporation (ILSC) undertook a nationwide consultation with its stakeholders. This consultation informed the development of the National Indigenous Land and Sea Strategy (NILSS) and Regional Indigenous Land and Sea Strategies (RILSSs) 2023-2028. This consultation identified five priority sectors, in which stakeholders wanted to see ILSC partner with First Nations[1] to elevate influence and drive progress at scale. The priority sectors are:

- Carbon
- Environmental Markets
- **Renewables and Clean Energy**
- Inland Water
- Fisheries and Aquaculture

This document provides an overview of the legislation, policies and programs, challenges and opportunities that impact on the involvement and leadership of First Nations peoples in the carbon sector.

It has been prepared as a companion reader to the ILSC Sector Leadership Future Industries Initiatives, which provides a suite of initiatives for how the ILSC can contribute to the priority sectors.

The information contained in this companion reader was informed by First Nations carbon sector participants and originally collated by the Pollination Group on behalf of the ILSC. It is an overview of issues and opportunities for First Nations peoples with an interest in the renewable energy sector. The ILSC recommends that First Nations people considering projects in the renewable energy sector seek specific advice regarding regional issues, opportunities and business viability.

Figure 01. The National Indigenous Land and Sea Strategy 2023-28. Country and its people are at the heart of the NILSS and the reason for the ILSC's existence. Supporting Indigenous leadership in the priority sectors is a strategic commitment under the guiding principle of self-determination.

1. For the purposes of this companion reader, we have used Aboriginal and/or Torres Strait Islander', 'Aboriginal', 'Indigenous' and 'First Nations' interchangeably.

Introduction

The renewables and clean energy sector plays a vital role in Australia's energy transition to net zero.

Climate change

Burning fossil fuels releases greenhouse gases into the air which trap heat and make the Earth warmer. The main gas causing climate change is carbon dioxide, along with methane and nitrous oxide.

Carbon dioxide works like a blanket around the earth, holding in heat from the sun. Since people started burning a lot of fossil fuels, carbon dioxide levels have almost doubled. Currently there is more carbon in the air than at any time in the last 800,000 years.

If we don't reduce carbon dioxide levels, climate change could speed up and cause serious, permanent damage.

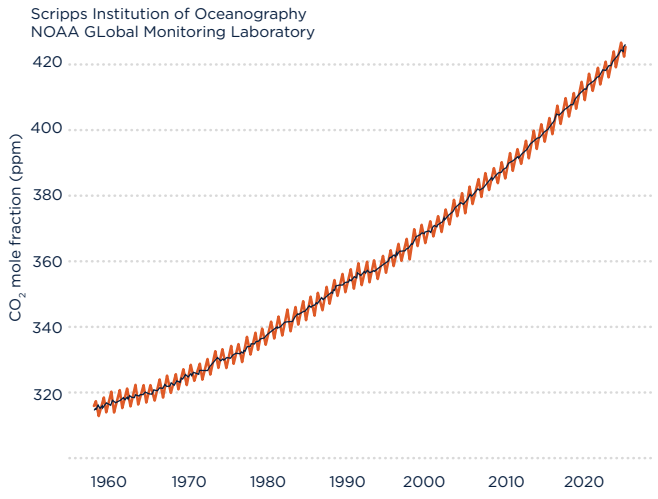


Figure 02. Atmospheric CO_2 at Mauna Loa Observatory.

To stop global warming from rising more than 1.5°C, nearly 200 countries agreed in 2015, in Paris, to reach 'net zero' carbon emissions by 2050. This means we must cut greenhouse gas emissions and switch to renewable energy as soon as possible.

Risks and impacts of climate change on Country

Extreme weather events, like heatwaves, storms, and floods, are seriously affecting First Nations people in regional and remote Australia.

- In Wujal Wujal, Queensland, 300 people had to leave their homes after massive floods from ex-Tropical Cyclone Jasper in December 2023. They were told not to return until late 2024.
- Over 96,000 First Nations people were affected by the Black Summer bushfires (2019 to 2020) in Queensland, NSW, ACT, and Victoria.
- In NSW, 220 people from Cabbage Tree Island started returning home in late 2024 after extreme flooding in February 2022 made their island unliveable.
- On Saibai Island in the Torres Strait, people have been leaving for years because rising sea levels are destroying the land. Only 300 people remain.
- In South Australia and western NSW, many First Nations homes lost power for weeks in extreme heat after major storms on 17 October 2024.
- In NSW, First Nations people are more exposed to extreme heat, with 26 percent living in areas with frequent heatwaves, compared to 9 percent of non-Aboriginal people.
- In the Kimberley, Western Australia, heavy rain from ex-Tropical Cyclone Ellie (Dec 2022 to Jan 2023) caused severe flooding, leaving hundreds of First Nations people displaced and their homes damaged.

These disasters are making it harder for First Nations communities to access reliable electricity, heating, and cooling, especially in poor-quality housing.

Seasons with heatwaves, bushfires, and cyclones are becoming longer, making problems worse and increasing inequalities in local communities.

First Nations people are the best placed to make decisions for their communities. It's crucial they have a strong voice in climate change discussions and access to the right resources, rebates and support. This will help ensure safe housing, energy efficiency, and renewable technology is available to meet the challenges of a changing climate.

Australian Government action to reduce greenhouse gas emissions

An overview of the energy sector

The global energy system is a major source of greenhouse gas emissions that cause global warming. To tackle this challenge, countries around the world are shifting their electricity systems to clean energy.

To reach the World Economic Forum's net zero target by 2050[2] the global system must be completely transformed. Since the Paris Agreement in 2015, 193 countries have set targets to keep global warming below 1.5°C or well under 2°C. They are shifting towards renewable and clean energy.

Limiting global warming quickly by changing how we produce energy is critical to avoiding dangerous climate change. In Australia, this transition is happening fast. Coal-fired power stations are closing, gas use is decreasing, and more solar and wind farms are being built.

The Federal Government has set a law to cut Australia's greenhouse gas emissions by 43 percent (below 2005 levels) by 2030.

Australia is one of the world's biggest fossil fuel exporters, responsible for 4.5 percent of global fossil fuel carbon dioxide emissions. About 80 percent of these emissions come from exports. However, when setting emissions targets, the Australian government does not count emissions from exported fossil fuels.

As Australia moves away from high-emission industries, the Government is investing billions in new 'green' industries, like those under the Future Made in Australia[3] initiative. Many of these opportunities are in clean energy.

To transition the energy systems, the Government has set a goal for 82 percent renewable electricity by 2030[4]. Each State and Territory has also introduced emissions reduction[5] and renewable energy targets.

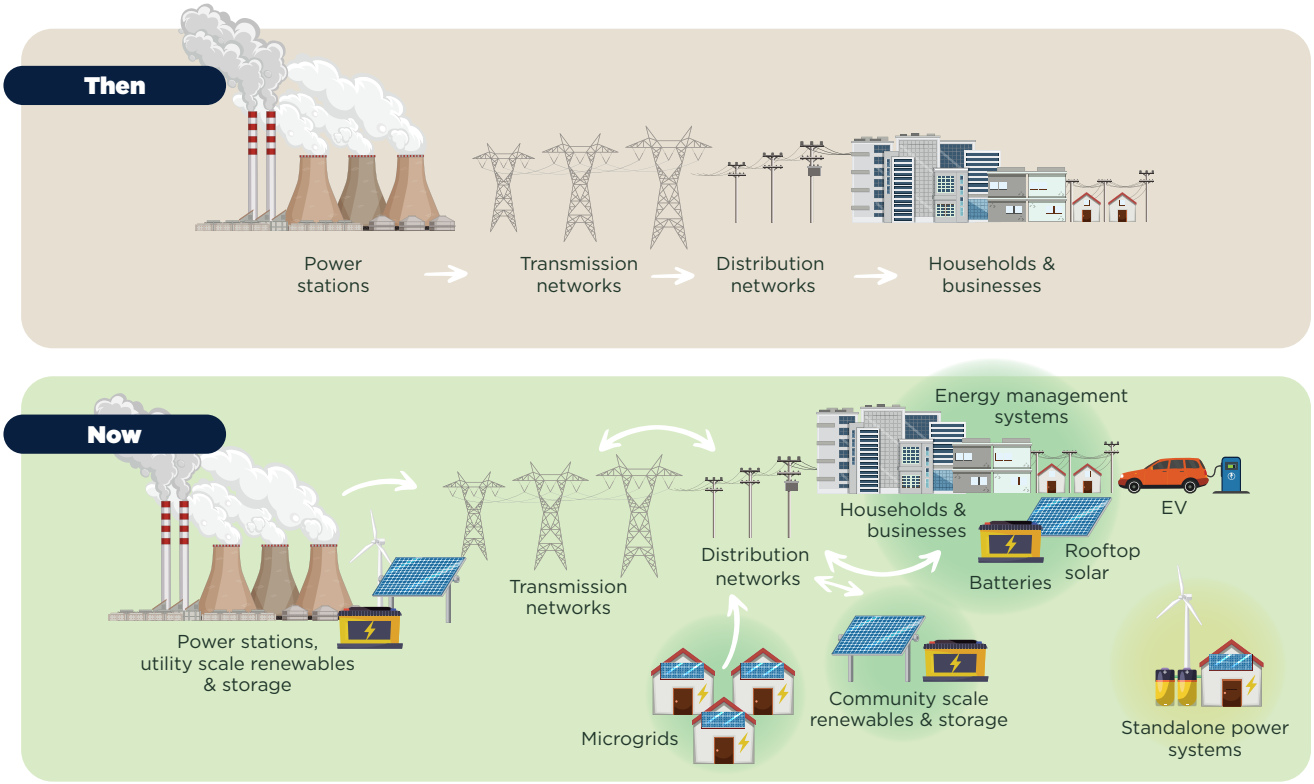


Figure 03. Energy system: then and now.

2. World Economic Forum Net Zoro by 2050.
3. See example Future Made in Australia initiative.
4. Clean Energy Regulator Renewable Energy Target.
5. Climate Change Authority Emissions Reduction Targets.

Reaching these targets will be a huge challenge. In 2023, only 39.4 percent of Australia's electricity came from renewables, according to the Clean Energy Council[6]:

- 13 percent wind
- 11 percent rooftop solar
- 7 percent medium and large-scale solar
- 6 percent hydro
- 1 percent bioenergy.

Australia is not yet halfway to its 82 percent renewable electricity target by 2030. Meanwhile, the world is on track for a catastrophic temperature rise of over 3°C by the end of the century, according to the United Nations[7]. Without rapid action, staying below 1.5°C of warming will no longer be possible within a few years.

Australia must speed up its shift from fossil fuels to renewables in homes, communities, industry, and on Country; First Nations people have a vital role to play.

First Nations hold legally recognised rights over 57 percent of Australia's landmass, meaning their communities should be key beneficiaries of renewable energy development. However, most large-scale renewable projects have been built on freehold land where Aboriginal Land Rights or Native Title do not apply.

Right now, there is little to no funding, infrastructure, or policy to ensure First Nations benefit from renewables on their lands.

As Australia expands renewable energy, governments, industries, and communities must ensure:

- early and meaningful engagement
- free, prior, and informed consent
- strong agreements
- fair benefit-sharing.

This approach will accelerate the energy transition while reducing risks, costs, and delays.

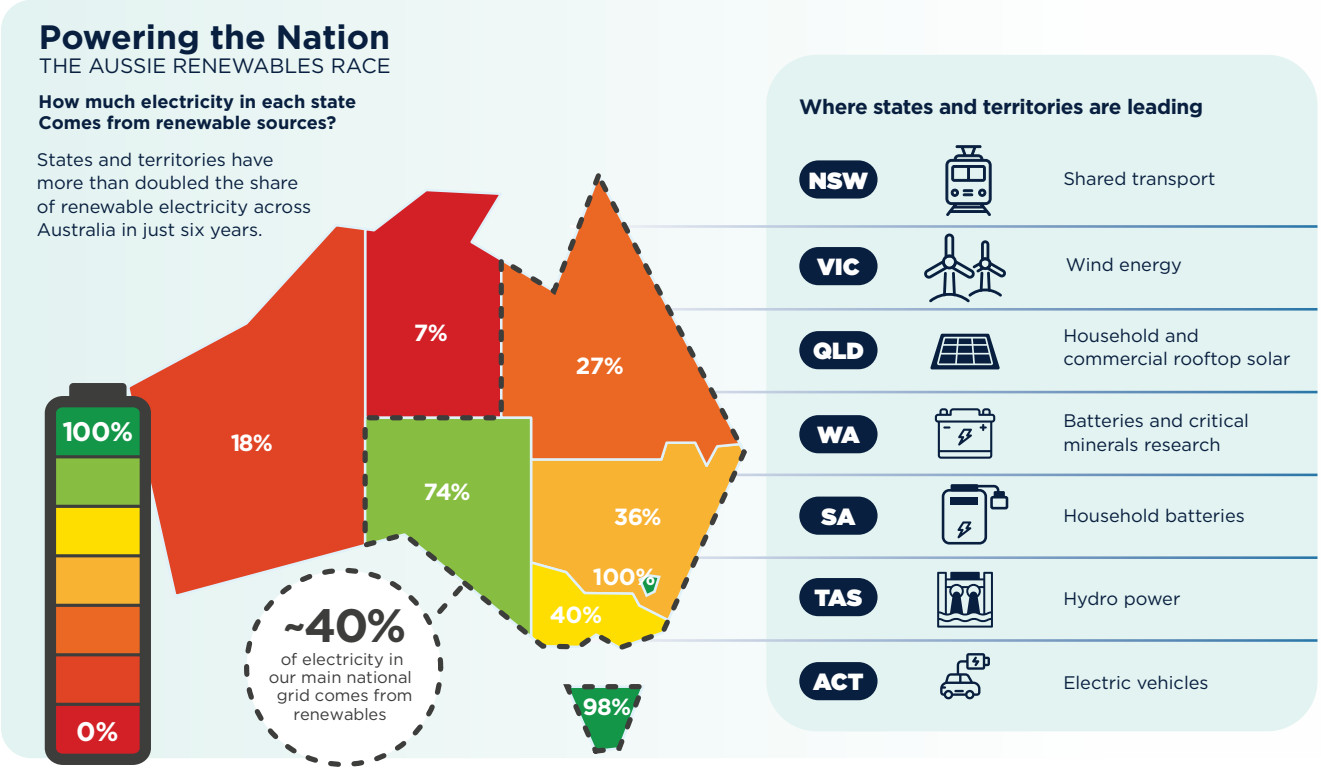


Figure 04. Amount of electricity in each state coming from renewable sources.

6. Clean Energy Australia Report 2024.
7. United Nations Environment Program Emissions Gap Report 2024.

Case Study

Yarrabah Aboriginal Shire Council

Cheaper, reliable renewable energy solution for Yarrabah

Yarrabah, Australia's largest Aboriginal community, has completed a study to plan a new renewable energy system. This project aims to make energy more affordable, reliable, and sustainable for its 4,000 residents.

Located south of Cairns in Far North Queensland, Yarrabah often faces longer and more frequent power outages compared to urban areas. These disruptions make life harder, especially with inefficient appliances and limited access to essential services.

The study, led by Ener-G Management Group, explored the technical and financial feasibility of a microgrid. It also ensured the Yarrabah Aboriginal Shire Council (YASC) played a key role in designing, setting up, and managing the system.

Supported by the Indigenous Land and Sea Corporation (ILSC), the Queensland Government, and Energy Queensland, the study involved six community engagement activities. More than 85 Indigenous representatives from 51 organisations participated.

Key benefits of the 'Empower Yarrabah' Microgrid

- Lower household energy costs
- More reliable power for banking, education, telehealth, and other services
- Improved community resilience and well-being
- Job creation (at least 35 new local jobs)
- Training and skills development for residents.

Planned features

- Central community battery storage with a smart control system
- Solar panels and batteries for homes
- Energy-efficient upgrades to social housing
- Programs to help residents save energy
- E-mobility solutions (like electric transport options)
- Community education on energy use.

What's next?

YASC is applying for funding from the Australian Renewable Energy Agency (ARENA) to cover up to 50 percent of the project costs. Additional funding partners will also be sought. Once fully implemented, the project will give Yarrabah greater control over its energy future, leading to long-term benefits for the community.

ILSC Investment: $250,000
Partners: Queensland Department of Energy and Climate (F), Energy Queensland (IK)

What is renewable and clean energy?

We use energy every day, to travel, move goods, heat and cool our homes, cook food, and power businesses. Energy is essential for our society to function, allowing everyone in Australia to take part in the economy.

Electricity can come from renewable sources like wind and solar or non-renewable sources like coal, oil, and gas. In Australia, wind and solar are the most affordable options for generating and storing electricity.

Australia has long relied on fossil fuels for electricity, but the shift to renewable energy—like solar and wind—is now leading the way. These energy sources are naturally replenished, won't run out, and can power everything from homes and businesses to large-scale projects and exports.

Clean energy, also called zero-carbon or green energy, includes renewables that produce little to no carbon emissions. This includes solar, wind, hydro, and geothermal power. Hydrogen can also be clean if made using renewable energy and water, this is called green hydrogen, which could help the world reach net-zero emissions by 2050.

New technology is making renewable energy more reliable. Batteries store energy for later use, while smart grids use automation and digital tools to distribute power efficiently. As coal and gas are phased out, hybrid systems combining solar, wind, and storage will provide steady, cost-effective electricity.

Switching to renewable energy is crucial for cutting emissions and creating a sustainable future. For First Nations communities, this transition offers reliable and affordable power, energy-efficient homes, and opportunities for jobs, self-determination, and economic growth.

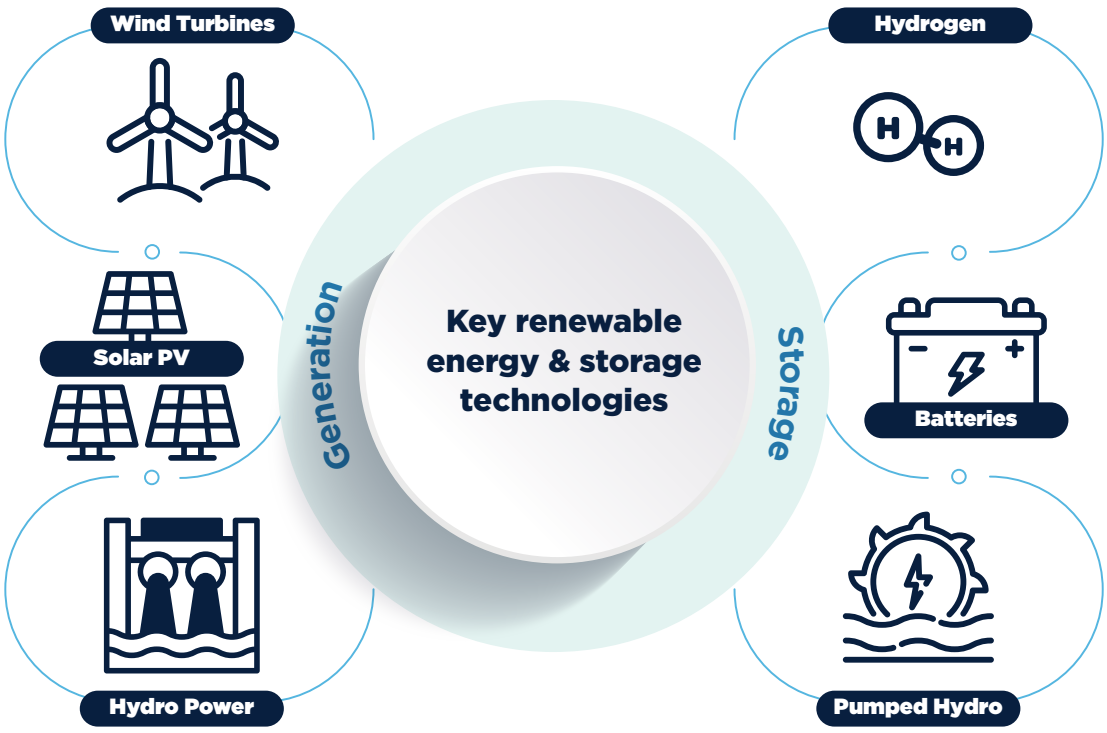


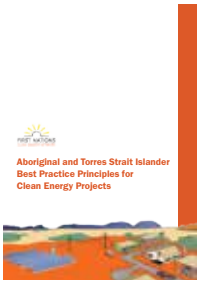
Figure 05. Types of renewable energy.

Rights and interests of First Nations people in the transition to renewable energy

First Nations groups in Australia hold important rights, interests, and leverage in the shift to renewable energy through native title, land rights, and other legal property rights. Many clean energy projects will be developed on land and waters where First Nations people have legally recognised responsibilities and connections.

Unlike past industries, such as mining, the clean energy transition operates in a different legal and policy environment. Investors, markets, and policymakers increasingly recognise that genuine partnerships with First Nations communities are not only the right thing to do but also create better outcomes for all. These partnerships respect cultural heritage, strengthen economic opportunities, and ensure that First Nations voices shape Australia's renewable energy future.

Resources guide



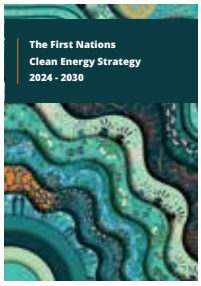
In 2022, the First Nations Clean Energy Network introduced its **Best Practice Principles for Clean Energy Projects**[8] at the national level. A key principle is Free, Prior, and Informed Consent (FPIC), as outlined in the United Nations Declaration on the Rights of Indigenous Peoples.

There is growing recognition that these principles should apply to all clean energy projects, regardless of land tenure. The clean energy sector is increasingly embracing this approach, ensuring First Nations communities have a genuine voice in decisions that affect their land, waters, and future.

Following the launch of the Best Practice Principles for Clean Energy Projects, the Clean Energy Council, in collaboration with KPMG, introduced the

Leading Practice Principles: First Nations and Renewable Energy Projects[9]**.** This guide helps industry and government put these best practice principles into action.

Beyond these frameworks, the clean energy transition is driving new government policies and programs that focus on First Nations participation and benefits. These initiatives aim to ensure that First Nations communities play a key role in shaping and benefiting from Australia's evolving energy system.



Launched in 2024, the **First Nations Clean Energy Strategy**[10] sets out a clear vision for First Nations, government, and industry to work together in a coordinated way. It focuses on increasing access to affordable clean power, ensuring benefit-sharing partnerships, and supporting First Nations-led projects.

The Strategy provides a framework to:

- **Improve access** to reliable and affordable clean energy for First Nations communities.
- **Strengthen partnerships** between First Nations groups and the clean energy sector, ensuring fair and equitable collaboration.
- **Enhance economic benefits** by supporting First Nations self-determination and increasing opportunities for economic participation in the clean energy transition.

This strategy marks a major step in ensuring First Nations communities are key players and beneficiaries in Australia's clean energy future.

8. Aboriginal and Torres Strait Islander Best Practice Principles for Clean Energy Projects.
9. Leading Practice Principles: First Nations and Renewable Energy Projects.
10. First Nations Clean Energy Strategy.

Rights and interests of First Nations people in the transition to renewable energy

The Capacity Investment Scheme (CIS)[11] is an Australian Government initiative aimed at driving $67 billion in clean energy investment by 2030. It works by holding competitive tenders for new clean energy projects, with successful bidders receiving revenue underwriting, a long-term financial safety net that reduces investor risk.

Thanks to strong advocacy from First Nations organisations, the scheme now includes specific criteria that project proponents must meet to ensure First Nations participation and benefits. This change helps create more inclusive and equitable opportunities in Australia's clean energy transition.

In the 2024-25 Budget, the Australian Government committed $22.7 billion over the next decade to support Australia's economic transition. A key part of this plan is the **Future Made in Australia** program[12], which outlines how these funds will be invested.

Recognising the scale of this investment, First Nations groups have actively advocated for ensuring that these funds deliver positive outcomes for First Nations communities. As a result of this advocacy, the Future Made in Australia framework has been amended to include stronger commitments to First Nations participation and benefit-sharing.

The **Net Zero Economy Authority**[13] is designed to guide Australia's clean energy transition in a way that ensures economic opportunities for all, including First Nations people. Its goal is to support equitable participation and benefit-sharing as the country moves toward a net zero emissions economy.

The Authority focuses on:

- **Supporting workers** through job transitions.
- **Investing in regional communities** to drive long-term economic transformation.
- **Facilitating investment** in new and decarbonised industries, particularly in key regions.

By prioritising people, communities, and investment, the Authority aims to create a fair and inclusive transition that delivers lasting benefits for First Nations groups and broader society.

The Australian Renewable Energy Agency (ARENA) **Regional Microgrids Program**[14] funds the development and deployment of microgrid projects in First Nations communities across regional Australia. These projects aim to:

- Lower energy costs while delivering broader community benefits.
- Provide cleaner, more reliable energy to improve daily life.
- Empower First Nations communities to take an active role in their electricity supply and energy infrastructure.
- Address key barriers to implementing microgrid solutions.

By supporting these initiatives, the program helps increase energy security, reduce reliance on fossil fuels, and create sustainable, community-led energy solutions.

Relevant legislation and regulations

Electricity is vital for daily life, and access to affordable and clean energy is crucial for the well-being of individuals, communities, and the economy. Achieving this is part of the United Nations' Sustainable Development Goals. As such, the energy system in Australia is heavily regulated, with numerous rules and regulations governing its operations.

The Australian Government's energy policy includes various strategies and programs[15] designed to ensure

11. Capacity Investment Scheme.
12. Future Made in Australia.
13. New Zero Economy Authority.
14. Australian Renewable Energy Agency's Regional Microgrids Program.
15. Australian Government's Energy Strategies and Frameworks.

Terry Collins installs a solar power system at Marlinja, NT. Photo: Original Pow.

energy is reliable, secure, affordable, and that it reduces emissions. The Powering Australia plan is one of the key policies aiming to create jobs, lower energy bills, and boost renewable energy. A key part of this plan is the National Energy Transformation Partnership, which includes a focus on First Nations communities. This partnership has made the First Nations Clean Energy Strategy a top priority.

Some other government initiatives that are relevant to First Nations include:

- **National Energy Performance Strategy[16]:** Focuses on lowering energy bills, improving efficiency, and reducing emissions through electrification or fuel switching for all Australians.
- **Rewiring the Nation[17]:** Provides low-cost financing to upgrade and modernize Australia's electricity grid.
- **National Energy Workforce Strategy[18]:** Aims to create jobs and opportunities in the energy sector.
- **Offshore Infrastructure Projects Framework[19]:** A legislative effort to enable energy projects in sea Country (offshore or Commonwealth waters).

Energy rules and regulations vary across each State and Territory in Australia, particularly for First Nations communities. The First Nations Clean Energy Network[20] has produced papers detailing policy opportunities and barriers specific to each region, including issues related to land rights, native title, and community energy access.

Since policies and regulations change frequently, First Nations communities are encouraged to reach out to trusted advisors to stay informed about the latest developments and opportunities.

16. National Energy Performance Strategy.
17. Rewiring the Nation.
18. National Energy Workforce Strategy.
19. FNCEN Summary of Legislation applying to Offshore Renewable Development Areas.
20. FNCEN Policy Opportunities and Barriers.

Case Studies

First Nations partnerships in clean energy

Figure 06. Location of proposed Wilan Wind Farm

Wilan Wind Farm

In 2024, the Nari Nari Tribal Council partnered with Copenhagen Infrastructure Partners and Kilara Energy to develop the 500 megawatt Wilan Wind Farm in the South West Renewable Energy Zone of NSW. This partnership is a great example of First Nations involvement in large-scale renewable energy projects, with a focus on sharing knowledge, respecting cultural obligations, and ensuring mutual benefits.

As part of the joint development agreement, the Nari Nari Tribal Council will receive 5 percent to 10 percent of milestone payments during the development phase. These payments allow Nari Nari to leverage their initial investment in knowledge and offer an opportunity to invest up to $10 million as an equity shareholder in the operational phase of the project. Additionally, Nari Nari has secured clauses ensuring they can approve future partners, preventing the project from being sold to entities they do not wish to work with. These agreements are in addition to landholder payments.

Jinbi Solar

In June 2023, Yiyangu Pty Ltd, a company wholly owned by the Yindjibarndi people, partnered with ACEN Renewables to create Yindjibarndi Energy Corporation (YEC). Yiyangu holds 25 percent ownership in YEC, with the remaining stake controlled by ACEN.

The agreement ensures Yindjibarndi approval for all proposed renewable energy sites, 25 percent to 50 percent equity in every project, preferred contracting for Yindjibarndi-owned businesses, and opportunities for training and employment for Yindjibarndi people.

Yindjibarndi Energy Corporation is planning to develop, own, and operate up to 3 gigawatts (GW) of renewable energy projects in Western Australia's Pilbara region. The first project, Project Jinbi, will involve 75-150 MW of solar generation, with an option for battery storage. In 2024, the Western Australian government fast-tracked approval for Project Jinbi, marking the first approval under the state's Green Energy Approvals Initiative. The project then received final approval from the City of Karratha's Joint Development Assessment Panel in late 2024.

Demonstration projects

Across Australia, demonstration projects are being developed to showcase the benefits of renewable energy systems for First Nations communities. These projects aim to provide cheaper, cleaner, and more reliable power, while also delivering a range of socio-economic benefits. These include:

- Opportunities for ownership of renewable energy projects.
- Economic development for local communities.
- Supply chain and employment opportunities within the clean energy sector.

By highlighting these benefits, these projects not only support the transition to renewable energy but also empower First Nations communities to take an active role in their energy future.

Junja Solar Farm

Three parties are involved in the development of the 10 megawatt (MW) Junja Solar farm in Western Australia, including Jinparinya Aboriginal Corporation, the Ngarla People via Wanparta Aboriginal Corporation, and Pilbara Solar (which is 50 percent owned by Yamatji Marlpa Aboriginal Corporation).

The partnership is reported to include 5 percent free carry ownership, the chance to increase Jinparinya's ownership with financing, annual lease payments, payment of communi energy bills, and civil works

contracted to Cundaline Resources – a business owned by community members. It is estimated the Junja Solar Farm will generate monetary benefits all First Nations parties involved over its lifetime.

Marlinja Microgrid

The Marlinja Microgrid in the Northern Territory is a groundbreaking project, being Australia's first, First Nations-led and owned grid-connected microgrid. Located in the remote Marlinja community, this initiative was sparked by local residents who were facing energy insecurity due to high electricity costs and frequent system outages.

Installed in June 2024, the microgrid includes a 100 kW solar array provided by technology partner 5B and a 136 kWh battery to meet the energy needs of the community during both daytime and nighttime. The project is not only providing reliable and affordable power but also creating opportunities for community members to get directly involved in the project. They played an active role in project planning, solar panel installation, and received training in electrical technology and carpentry skills.

This First Nations-led renewable energy project is setting a precedent for other remote communities to design their own sustainable energy solutions, improving community well-being with lower-cost and more reliable electricity.

Figure 07. Marlinja Microgrid, NT, developed in partnership with the Marlinja Aboriginal community and Original Power (photo by Original Power).

Building a national hub for First Nations' access to clean energy opportunities

Since its launch in late 2021, the **First Nations Clean Energy Network (FNCEN)** has grown into a leading national hub, ensuring First Nations people play a central role in Australia's shift to renewable energy.

Australia is rolling out renewable energy faster per capita than any other country, and most large-scale projects require access to Indigenous land, waters, and resources. The Network helps ensure First Nations communities benefit from this transition and have the power to decide what happens on their Country.

Key Priorities

- Supporting communities to negotiate fair agreements for energy projects
- Promoting best-practice standards with industry
- Advocating for policy reforms so First Nations households and communities benefit from clean energy.

National Leadership

FNCEN is the only organisation in Australia providing this level of national coordination. Its membership has grown to over 1,000 First Nations individuals and groups and more than 3,000 supporters from industry, environment, education, community, and government sectors.

In 2024, the Network played a key role in shaping the First Nations Clean Energy Strategy, released by the Australian Government. It also hosted the First Nations Clean Energy Symposium in Tarntanya (Adelaide), attended by over 350 people.

ILSC Support & Future Growth

Since 2022, the Indigenous Land and Sea Corporation (ILSC) has invested $1.1 million to help FNCEN grow. This funding has supported:

- Establishing strong governance and strategic planning
- Expanding resources and training programs like 'PowerMakers'
- Building the capability of Network members.

The ILSC is proud to continue supporting FNCEN into 2025, reinforcing its commitment to First Nations leadership in Australia's clean energy future. This aligns with the National Indigenous Land and Sea Strategy 2023-2028 and its focus on sector leadership.

Opportunities and Challenges

The global shift to clean energy is changing how we produce and use energy. Electricity will become even more important as we move away from fossil fuels, with more electric vehicles and cleaner ways to heat and cool homes, businesses, and industries.

In Australia, this energy transition affects First Nations communities in different ways. There are opportunities and challenges at every level: for individual households, small community projects, larger national projects, and big export-focused ventures.

While there are obstacles like accessing funding and gaining new skills, the transition also brings job opportunities, local control of energy projects, and economic growth for First Nations people.

Figure 08. Benefits of Clean Energy in Communities.

Opportunities

There are emerging programs to help households, including renters, social housing, and First Nations families, make their homes more energy efficient. These programs help people understand energy bills, choose the right energy retailers, and use energy-saving practices. By accessing solar, battery systems, and electric vehicles, First Nations households can save money and improve their health and well-being.

Clean energy in Communities:

- Clean energy systems, such as solar power and battery storage, offer a significant opportunity to reduce reliance on expensive diesel and improve energy security.
- Community-led energy projects, including solar roll-outs and microgrids, can provide affordable, reliable clean power while creating economic opportunities and building community ownership.
- Initiatives like Standalone Power Systems (off-grid solar and storage) and Distributed Energy Resources can further empower First Nations communities to become energy independent and benefit from clean energy, improving lives and protecting the environment.

Clean Energy Planning Toolkit

The First Nations Clean Energy Network has developed the *Clean Energy Planning Toolkit*[21], for First Nations which has been designed to step through some of the considerations that will arise and which need to be addressed in thinking about a community energy project.

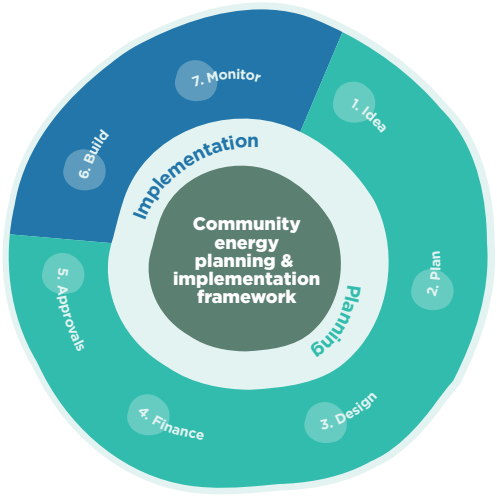


Figure 09. 7-step framework setting up a clean energy project.

21. Community Energy Planning Toolkit.

The Toolkit provides a 7-step framework to help communities develop and manage clean energy projects:

1. Gain expert advice from lawyers, business, and energy specialists to create a solid plan.
2. Create a company or partnership to share risk and access expertise and funding. This might include forming joint ventures or public-private partnerships. Several agreements are needed, such as:
   - Project agreement (covering environmental and cultural protection, employment, etc.)
   - Financing and asset management agreements
   - Land and water use agreements
3. Understand the costs of developing and maintaining the project, including materials, labor, and ongoing maintenance.
4. Secure power purchase agreements (PPAs) to sell the power generated by the project
5. Seek financial support, including grants, equity, or loans, to reduce costs and risks.
6. Obtain necessary approvals from governments, legal bodies, and energy providers for permits, connections, and environmental impact.

Significant role in the energy transition:

- First Nations communities have a key role in Australia's energy transition due to their land rights and cultural responsibilities.
- The development and placement of renewable energy projects and infrastructure on land and sea Country represent a significant economic development opportunity.

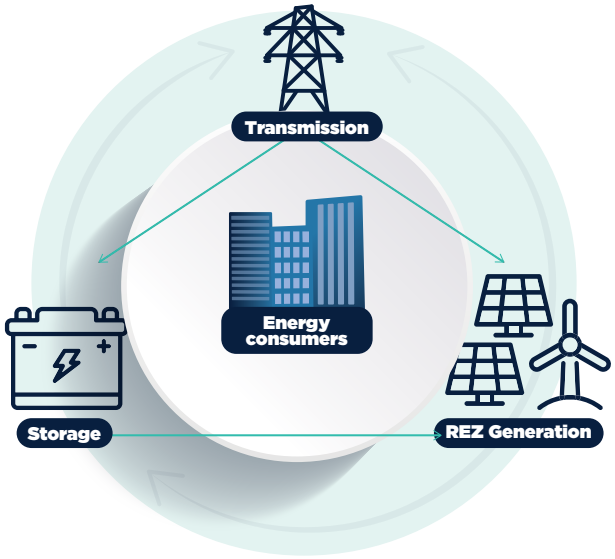


Figure 11. Renewable Energy Zones combine renewable energy with storage and transmission in defined locations.

First Nations leadership in clean energy projects:

- Many First Nations groups are already leading large-scale renewable energy projects, either independently or through partnerships.
- The First Nations Clean Energy Network highlights these initiatives through its Project Tracker[22].
- Renewable resources: Solar and wind maps show areas with the best resources for energy generation.
- Renewable Energy Zones (REZs)[23]: These areas have strong wind, sunlight, and nearby transmission infrastructure, making them ideal for energy development.
- Planning for the future: The Integrated System Plan (ISP)[24] helps identify where renewable energy projects should be placed for efficiency and cost-effectiveness.

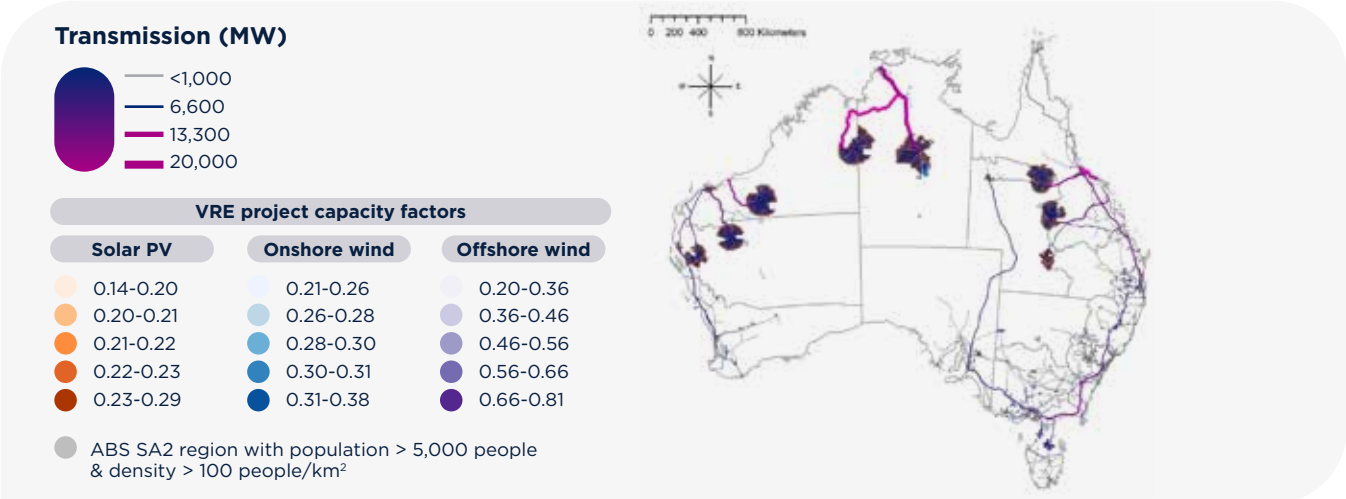


Figure 10. What net zero could look like in 2060. Source: Net Zero Australia

22. First Nations Clean Energy Network's Project Tracker.
23. AEMO Renewable Energy Zones June 2024.
24. AEMO Integrated System Plan.

Economic development and social benefits:

- Clean energy projects can drive job creation, training, economic stability, and community empowerment.
- Economic opportunities also extend to supply chain linkages and employment related to infrastructure development and resource management.
- Similar initiatives in Canada have led to broader benefits like gender equity, cultural revitalisation, and local economic growth.

Indigenous communities are the second largest clean energy asset owners and partners in Canada with thousands of small to large scale projects underway and ongoing. These projects have led to community training and job creation, reduction in greenhouse gas emissions, advanced gender equity, materially improved economic stability, cultural revitalisation and much more. Globally more action needs to be taken to amplify Indigenous voices in dialogues on the development of clean energy resources and climate leadership.

Growing Government support and incentives:

- The Australian Government and private investors are committing billions to Australia's clean energy transition.
- Organisations like the First Nations Clean Energy Network, Indigenous Land and Sea Corporation, and National Native Title Council are working to ensure that First Nations share in the financial benefits of this transformation.
- Programs like the Capacity Investment Scheme and other policy incentives support First Nations participation in the energy economy.

Global investment trends in clean energy:

- Renewable energy investment hit $1.8 trillion globally in 2023[25], showing the scale of economic opportunity.
- Australia, with $21.23 billion in investments as of 2024[26], must significantly scale up to meet its 2030 renewable energy goals, creating space for First Nations involvement and to lead.

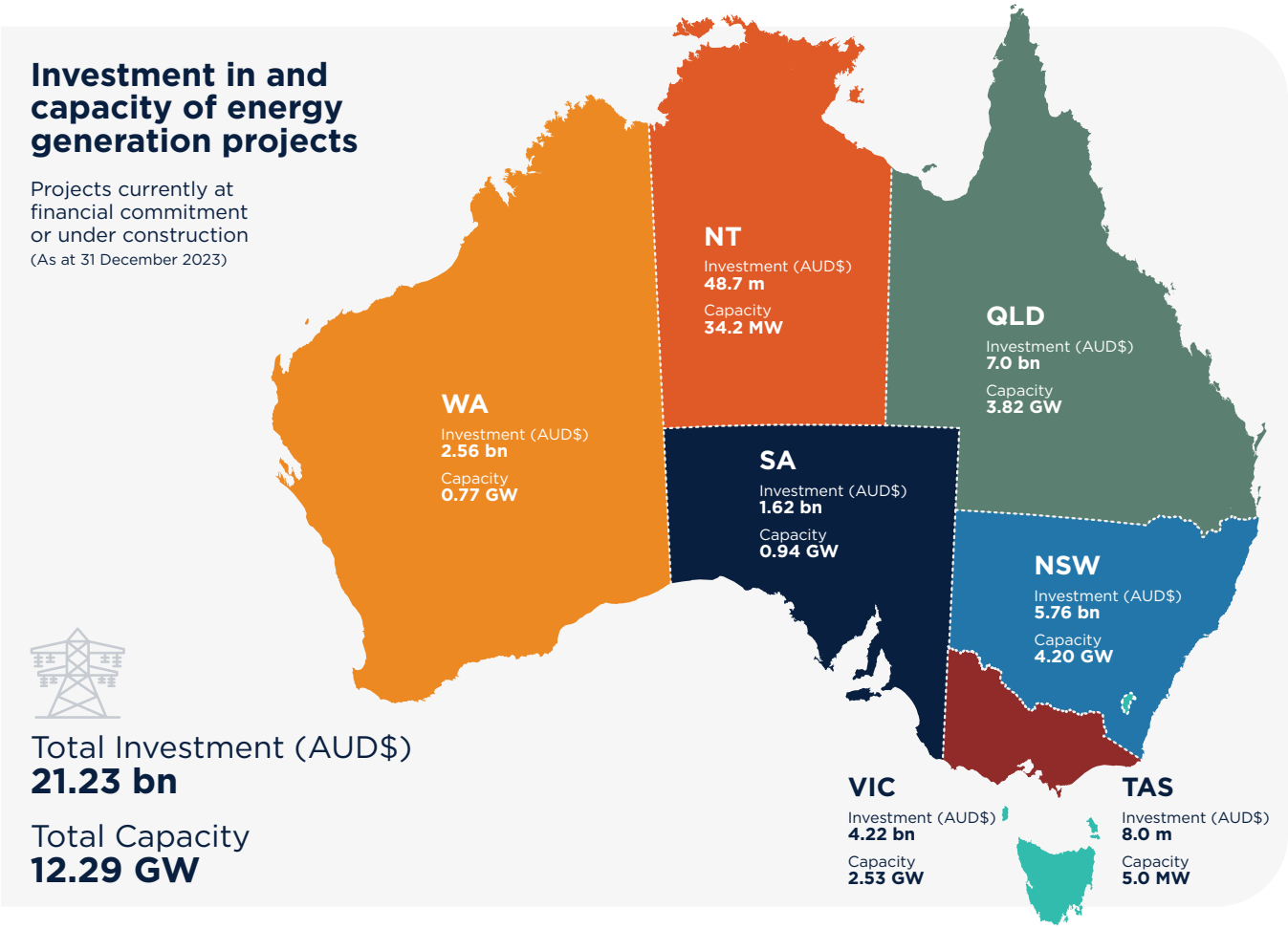


Figure 12. Investment in and capacity of energy generation projects in Australia (2024). Source: Clean Energy Australia 2024.

25. Clean Energy Australia Report.
26. Clean Energy Australia, 2024.

Challenges

As Australia moves to clean energy, First Nations households face challenges with high upfront costs for new energy technologies like solar, batteries, and electric vehicles. Many homes are energy inefficient and upgrading them can be too expensive. Renters or people in community housing also struggle because landlords don't benefit from the savings, and tenants often can't make long-term investments in things like solar systems due to short leases or financial barriers.

Communities and First Nations living in regional and remote areas:

- Many First Nations communities across Australia, especially in remote areas, lack access to affordable and reliable electricity.
- Extreme weather, high energy costs, and the need for climate-safe housing add to these challenges.
- Diesel-powered generators are often used in remote communities, which are expensive, unreliable, and hard to maintain.
- Prepaid metering systems further contribute to the issue, causing power disconnections when credit runs out.

Coal and fossil fuel extraction:

- Has harmed the land and released greenhouse gases, contributing to climate change.

Renewable energy projects:

- Will require access to large areas of land and water, and new transmission infrastructure, which may impact these areas (solar, wind, hydro).

Uncertainty of the future energy system:

- It's hard to predict the exact footprint of a decarbonised energy system, but projections are necessary for planning.

Historical exclusion from energy planning:

- Until recently, First Nations perspectives were absent from Australia's energy transition planning and design.
- This has slowed progress, given the extent of First Nations rights, interests, and cultural connections across Australia.

Land use and regulatory barriers:

- The Indigenous Estate now covers seventy percent of the Australian landmass[27].
- One study indicated approximately 43 percent of new clean energy infrastructure is projected to be sited on the Indigenous Estate[28].
- Existing policy and legal frameworks regulating land, water, and resource access do not adequately support Traditional Owner consent or First Nations economic participation.

Economic barriers and capital access:

- The impacts of historical economic exclusion limit First Nations' ability to access capital needed for commercial opportunities.
- Building commercial capability, capacity, and securing expert support takes time and resources.

Managing risks in clean energy development:

- The rapid transition must balance protecting Country, cultural heritage, and community interests.
- Challenges exist in securing funding, resources, and informed decision-making support.

27. Australia's Indigenous Land and Forest Estate, 2024.
28. Net Zero Australia, Reports Final Modelling Results, 2023.

Australian Government
Indigenous Land and Sea Corporation

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Established in 1995 under the *Aboriginal and Torres Strait Islander Act,* we provide for the contemporary and future land needs of Indigenous people, particularly those unlikely to benefit from Native Title or Land Rights.

We work with our Indigenous partners to grow their economic, environmental, cultural and social capital by supporting their acquisition and management of land and water. In redressing dispossession, we provide for a more prosperous and culturally centred future for Indigenous people.

The Indigenous Land and Sea Corporation is a Commonwealth entity under the *Public Governance, Performance and Accountability Act 2013.*

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