OUR RENEWABLE FUTURE: A PLAN FOR PEOPLE AND NATURE

60 YEARS
AUSTRALIAN CONSERVATION FOUNDATION
Nature needs us, now

WWF

WE ACKNOWLEDGE THE TRADITIONAL OWNERS OF COUNTRY and their continuing connection to land, waters and community. We pay respect to their Elders past and present and to the pivotal role that First Nations Peoples continue to play in caring for Country across Australia.

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Cover. Girl running towards wind turbines **Photo.** kamisoka / iStock
Right. Solar panels supplying electricity to Wilpena Pound in the middle of Flinders Ranges national park **Photo.** zetter / iStock

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Photo. Annette Ruzicka

FOREWORD

OUR COUNTRY IS CHANGING THE WAY WE POWER OUR LIVES, MOVING AWAY FROM POLLUTING FOSSIL FUELS TO RENEWABLE ENERGY THAT IS GOOD FOR PEOPLE, CLIMATE AND NATURE.

Done wisely, Australia's energy transition can be a win-win: cutting emissions while restoring and protecting our incredible natural world.

The science is clear: we must rapidly phase out coal, oil and gas to avoid the worst impacts of climate change. At the same time, we must halt and reverse nature destruction, ensuring that the infrastructure we build to power our future does not come at the expense of the very ecosystems that sustain us.

Misinformation and disinformation are doing what they are designed to do, slow progress. We've seen attempts to create confusion – claims that renewables are more harmful to nature than fossil fuels, or that nuclear is a quick fix when, in reality, it's too slow and unaffordable to meet our urgent climate targets. These distractions, often fueled by vested interests, are designed to delay action. But we must also acknowledge genuine concerns about the impacts of renewable energy development. When projects are poorly planned – sited in important habitats, or without meaningful community consultation – they erode public trust and undermine the transition itself.

The good news is that we know how to get this right. We can accelerate the rollout of renewables in a way that protects nature and benefits communities. That means better planning, stronger environmental safeguards, and ensuring First Nations leadership and community engagement in decision-making. It means prioritizing degraded land for development, investing in local energy solutions, and embedding biodiversity gains into every project.

The momentum is with us. Australia is already on track for renewables to provide most of our energy this decade. We must keep going – ensuring that every new project strengthens our biodiversity and delivers a transition that benefits people, climate, and wildlife.

This is a "how to make that happen" plan. It's a vision for how government, industry, and communities can work together toward a future where clean energy and thriving nature go hand in hand. We encourage you to take this vision, share the knowledge, and help make it real.

Together, we can build an energy future that powers Australia while protecting the places and wildlife we love. Let's all work together to get it right.

Dermot O'Gorman
CEO,
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EXECUTIVE SUMMARY

Australians share a deep connection with nature. It's our life support system and it's in big trouble. Australia boasts unique and diverse ecosystems and wildlife, earning us a place amongst just 17 'mega diverse' countries globally. Nature isn't just there to appreciate – it sustains our lives, starting with the very air we breathe. Remarkably, half of Australia's economy, approximately $900 billion, depends on it too.

But our natural world is dying. Humans have already caused the extinction of more than 100 unique species in Australia, and left more critically endangered, like the swift parrot and Wollemi pine. People are nature's catch-22 in that we have largely driven nature's decline, yet we remain its greatest hope to thrive in the future.

A healthy natural world depends on a safe climate and development practices that actively work to minimise harm and restore it. The nature crisis is caused by climate pollution and habitat destruction. And here in Australia, we are dismally failing nature with weak laws that offer little protection.

Climate pollution from burning coal, oil and gas is turbocharging extreme weather events like the Black Summer bushfires that burnt 18.6 million hectares and killed or harmed an estimated three billion animals. And sadly, it will happen again. And again. Until there's very little left. Unless we stop burning coal, oil and gas as quickly as possible.

For nature and our future, we must do better.

The solution? Clean energy from our most abundant natural sources: sun and wind. We need a renewable energy transition that benefits people, climate and nature. To power our own energy needs with renewables it's estimated we would only require 1,200km2 - 2,000km2 or 0.0002% of Australia's bountiful landmass (Blakers 2023). Already, renewables account for 40 per cent of our main power supply. But – to save what we love - we need to do more.

Right now, there are legitimate concerns surrounding individual renewables projects, some of which have led to habitat destruction and impacts on threatened wildlife. This undermines Australia's ability to meet its targets to halt biodiversity loss and restore degraded ecosystems, erodes trust in the energy transition and increases community opposition to renewable energy.

Those concerns have led to action and a plan to get this right for nature. Because renewables are the only energy option that can turbo charge the restoration and protection of our natural world.

A transition that is good for people and nature makes good business sense and can deliver real benefits to First Nations and regional communities. We have an incredible opportunity to restore and grow nature. But only if we get the renewable energy transition right.

The ACF and WWF-Australia's plan for people and nature charts a way forward towards a future where the renewable energy transition works in harmony with nature.

To do this, we must work together. A safe climate and healthy nature are within reach if governments, businesses and communities come together to take urgent, sustained and collaborative action.

Here's how:

Governments at all levels need to take action to:

1. Accelerate the transition to a renewable energy system that is good for nature and people through laws, policies, investments and planning.
2. Overhaul national and state environmental laws to ensure all projects, including renewable energy projects, protect and restore biodiversity.
3. Directly invest in policies and programs, such as Local Energy Hubs, to support communities to shape and benefit from the transition.

Industry has to step up and:

1. Site renewables in the right places with adequate buffer zones to protect nature. This means avoiding areas like national parks, world heritage and key biodiversity areas, wetlands or locations critical to the survival of threatened and endangered species.
2. Ensure every project creates net gains and positive outcomes for nature
3. Partner with communities, businesses and government to deliver lasting benefits for people and the local environment

Communities can be advocates to do this right, by:

1. Championing renewable energy that is good for people and nature.
2. Partnering with local community groups, businesses and government to deliver lasting benefits to your community and local environment.
3. Countering disinformation and backing calls for Local Energy Hubs.

ACF and WWF-Australia are **calling on our supporters to get behind us and turn this vision into a bright future for all Australians.** We encourage you to take this vision for an energy transition that is good for people and nature and make it your own. Get behind what resonates for you. Find better ways to do it. Talk to people about it. Let's rise above the division, and make it happen. Nature is counting on us.

Left. Albany Wind Farm **Credit:** bmphotographer / Shutterstock

ABOUT THIS PLAN

THIS PLAN WAS DEVELOPED IN PARTNERSHIP BETWEEN THE AUSTRALIAN CONSERVATION FOUNDATION AND WWF-AUSTRALIA, TWO OF THE COUNTRY'S LEADING NATURE AND CLIMATE ORGANISATIONS WITH MORE THAN 2.8 MILLION COMBINED SUPPORTERS.

It has been informed by broad consultation across local, state and national environmental and climate organisations, renewable energy industry, First Nations organisations, and leading researchers. Quotes from this consultation can be seen throughout this report.

It conveys the current state of knowledge on how a renewable energy transition can benefit nature and people and outlines the necessary next steps to drive meaningful and timely progress through collaboration. Above all, this plan shows this is all possible if government, industry and communities take urgent and sustained action together.

OUR VISION: A SAFE CLIMATE AND A HEALTHY NATURAL WORLD FOR AUSTRALIA

WE SEE AN AUSTRALIA THAT IS FULLY POWERED BY ENERGY THAT IS GOOD FOR PEOPLE AND NATURE.

That means rapidly phasing out fossil fuels like coal and gas and replacing them with renewable energy, halting nature loss this decade and restoring nature to health by 2050, and ensuring that the energy transition benefits First Nations, local communities and workers.

The choices we make today shape the world of our future. For a safe climate and a healthy natural world, WWF-Australia and Australian Conservation Foundation share these overarching goals:

- **Phase out all fossil fuels before 2040**
- **Phase in 100% renewables that are good for nature before 2040**
- **Reduce energy demand and double energy efficiency by 2030**
- **Halt and reverse nature loss by 2030, and restore nature to health by 2050**
- **Ensure the transition benefits First Nations and local communities**

We believe this is the smartest path forward for Australia and it's achievable if governments, industries and communities work together for urgent and sustained action.

Illustration. Jess Harwood

OUR VISION


Renewables backed by storage replace fossil fuels
Offshore wind avoids and minimises nature impacts
Battery storage
Community hubs support regions through the transition
Wildlife corridors
Important habitats are protected and include adequate buffers
SEA RANGER
Buffer zones
Renewables support First Nations aspirations for their Country
Rooftop solar
Smart solutions to minimise risk to wildlife (like painted blades so birds can see them)
Locations are chosen to avoid habitat clearing
HOSPITAL
SCHOOL
Community energy projects help keep benefits local
Renewables co-located with other land uses
Habitats across renewable energy regions are restored
Farmers drawing income from renewable projects
Projects use repurposed and recycled materials, and have strong rehabilitation plans for decommissioning
Industry partners with environmental groups for positive biodiversity outcomes
Jess Harwood

THE CASE FOR AN ENERGY TRANSITION FIT FOR PEOPLE – AND NATURE

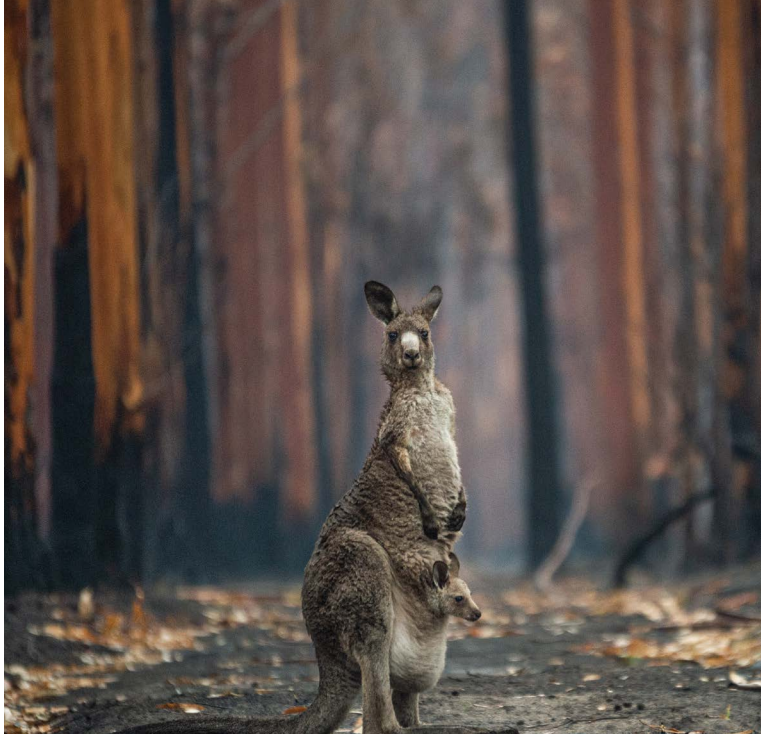
KEY TAKEAWAYS

- Australians share a deep connection with nature. It's also our life support system and helps power more than half of the national economy.
- Our natural world is in rapid decline, being decimated by climate pollution from the burning of coal and gas, and poor development practices.
- Strong, new national and global goals for nature exist – but we won't reach them unless we address climate pollution by meeting and beating our national emissions reductions and renewable energy targets at the same time.
- A transition to renewables and storage that is good for nature and people is a win-win-win. We can power everything with clean and affordable renewables and protect and restore nature – while driving benefits for First Nations, farmers, communities, and businesses.
- This transition is possible with urgent, sustained and collaborative action from governments, industry across all sectors and communities.

OUR LIFE SUPPORT SYSTEM NEEDS OUR SUPPORT

Australia's nature and wildlife is precious – and we are lucky to be stewards of our country's natural wealth. It's rich and diverse, with some 600,000 plant, bird, mammal, reptile and marine species calling our coral reefs, ancient rainforests, vast deserts, temperate woodlands, beaches and backyards home. Australia is one of just 17 countries known as 'mega diverse' with more than 80 per cent of our plants and animals, from our ringtail possums to snubfin dolphins and hundreds of varieties of eucalyptus and wattles, found nowhere else in the world (Purton 2024).

Photo. Wattle growing on regenerative farmer Tim Wright's property in Balala near Uralla in NSW. **Credit:** Tessa Stevens/ACF



Australians share a deep connection with nature. Nature is central to the culture and identity of First Nations peoples. Nature is our life support system. It provides the clean air we breathe, the fresh water we drink, the healthy food we eat, and the city parks and bush we enjoy. Nature is also present in our medicine, the materials that build our homes, and the fibres in the clothes we wear. In other words, nature isn't just something we appreciate; it sustains our lives, is vital to our wellbeing and is the force behind which more than half of our economy – around $900 billion each year - is directly dependent on (Australian Conservation Foundation, Pollination, and Australian Ethical 2022). Right now, our lives and livelihoods depend on the decisions we make to protect nature's inherent right to survive and thrive.

What we're about to share shouldn't come as a shock. Still, it can be difficult to accept. Nature in Australia is in crisis, and the situation is deteriorating more rapidly than we've ever seen before. Consecutive Australian Government State of the Environment reports confirm what we're already hearing, feeling, and witnessing all around us: our lands, rivers, forests, oceans, plants, wildlife, and climate are in trouble (Department of Climate Change, Energy, the Environment and Water 2021). In fact, while we may be a world leader in endemic species, we are also – shamefully - a leader in species extinctions with more than 100 unique species, like the pig-footed bandicoot, lost in the last 250 years (Griffith University 2025).

HOW DID WE GET HERE?

Many factors have led to the worsening nature crisis in Australia, including habitat destruction, rampant climate change, harmful invasive species and inadequate nature laws. Later in this plan, we'll delve into who is driving this destruction and articulate how they can turn it around. First, it's important to grasp how a safe climate fosters healthy nature and vice versa. Spoiler: Healthy nature depends on a safe climate, and a safe climate relies on healthy nature.

Nature and climate are like Romeo and Juliet: their fates are intertwined. The ongoing burning of coal, oil, and gas continues to overheat our planet causing catastrophic damage to our natural environment in its wake. This climate pollution is accelerating the frequency and intensity of unnatural disasters, including floods, bushfires, and heatwaves. From the tiniest marsupials to the soaring raptors, climate disasters are wreaking havoc on even our most resilient natural ecosystems and species (Animals Australia 2021).

There are countless examples of the devastating impacts of climate pollution on nature in Australia. The Great Barrier Reef has survived for millions of years, yet in 2024 alone, 73 per cent of the reef experienced coral bleaching from marine heatwaves (Great Barrier Reef Marine Park Authority, Australian Institute of Marine Science, and CSIRO 2024). The Black Summer bushfires in 2019-20 burnt 18.6 million hectares, and are estimated to have killed, injured or displaced three billion animals, including koalas, kangaroos and echidnas (WWF-Australia 2020).

Photo. Kangaroo and joey who survived the forest fires in Mallacoota 2020 **Credit:** Jo-Anne McArthur / We Animals Media

By contrast, intact ecosystems can help our climate by removing carbon from the atmosphere and storing it in water, soil, plants, and microorganisms. For example, trees absorb carbon dioxide from the atmosphere and store it in biomass and surrounding soil. However, when forests are burnt or cleared, an enormous amount of stored carbon is quickly released back into the atmosphere (Climate Council 2024).

Several practices, including regenerative farming methods and Indigenous land management practices, are restoring nature and reducing carbon pollution in Australia. Some efforts remain more effective than others, yet while they can be complementary, they cannot replace the urgent need to stop burning coal and gas which generates more carbon pollution than our climate or ecosystems can handle. Let's not forget that keeping fossil fuels in the ground contributes to a more stable and slower carbon cycle anyway (Climate Council 2024).

Fortunately, climate action has shifted from aspiration to reality with the move from fossil fuels to renewable energy well underway. What once seemed impossible has become possible, with a new path being forged and underpinned by stronger state and federal emissions and renewables targets and a bevy of bold plans to upgrade the grid, add storage capacity and decarbonise heavy-polluting industries. Already, more than 40 per cent of Australia's electricity supply comes from renewables and one-in-three Australian homes have rooftop solar (Clean Energy Council 2024; Australian Energy Market Operator 2025).

Unfortunately, various factors are shaking investor confidence, eroding community trust, and ultimately slowing the progress of this transition. These include legitimate economic pressures and environmental concerns, outdated nature laws and lobbying from the fossil fuel industry. For example, harmful misinformation and disinformation campaigns make it difficult to distinguish fact from fiction, let alone see the forest for the trees:

Photo. Winton Solar Farm **Credit:** Tom Kinsman/ACF

- **Misinformation and disinformation** run rife in the energy space. For example, with offshore wind, unfounded tales of whale deaths have become mixed up with real concerns like ensuring companies are implementing solutions to minimise the impact of underwater noise. Many of these campaigns are funded by the fossil fuel industry to ensure they can continue to profit from plundering the planet, and to deflect and distract from the much greater impacts the fossil fuel industry has on marine life, with ship strikes, seismic blasting and climate change posing serious threats to whales and other marine mammals (WWF-Australia 2025, Walker 2023).
- **The nuclear energy debate** is wasting time we don't have. It's a furphy designed to kick the coal and gas can down the road and divert progress on clean, affordable and reliable renewable energy (Climate Change Authority 2025). Nuclear energy uses too much water – a precious resource in a changing climate – and costs far more than solar and wind backed with clean storage. The construction of nuclear facilities is also too slow: it will be decades at best before any can be operational (CSIRO 2025). The risks of catastrophic meltdowns and dangers of storing radioactive waste for centuries are real.

Development in Australia remains unfit for nature. Some companies and industries are partaking in poor development practices like inadequate site selection and poor environmental safeguards. Many cases, including some renewable projects, pose or have led to land clearing and harmful impacts on habitats and wildlife. This not only impacts nature but undermines trust and falsely erodes confidence in Australia's very ability to transition to renewable energy and storage at the speed and scale required.

For a brighter fate for our star-crossed 'lovers', climate and nature, it's time to come together to do better and go further. Stopping all new coal and gas approvals and increasing the speed and scale of the renewable energy rollout will help nature by reducing climate pollution and creating a safer climate.

While momentum and approaches are improving, much more work and investment are critical to address the full extent of Australia's worsening nature crisis at the same time. This includes the energy industry and renewable energy sector, stopping development practices that harm nature and starting practices that benefit local communities and nature.

HOW DO WE MOVE FORWARD?

It's clear: we need solutions that tackle both the nature and climate crises. Experts from across science, economics, industry and nature are calling for a rapid move away from polluting fossil fuels to renewable energy sources in ways that benefit nature and people. It's the single best option for both a safe climate and healthy nature in Australia today.

DID YOU KNOW? RENEWABLES OUTSHINE OTHER ENERGY SOURCES

Australia's move to renewables backed by storage is well underway. They're clean, affordable, reliable and good for climate – done well, they can unlock further benefits for people and help nature thrive.

BENEFITS FOR PEOPLE

Emissions reductions: Renewable energy plays a crucial role in helping to reduce greenhouse gas emissions and tackle climate change – in Australia it has already led to a 30% reduction in electricity emissions compared to 2015 levels (Clean Energy Council, 2024). In contrast, Australia is the second largest exporter of fossil fuels in the world - which means that even if it's being burned elsewhere, Aussie fossil fuel exports are still fuelling the global climate crisis! The good news is that we can build new green industries to replace these exports generating over 400,000 jobs and giving our economy a $100 billion boost (Accenture 2023).

Price and reliability: Renewables, even when backed with storage and network upgrades, are now the cheapest and most reliable form of electricity. If it wasn't for renewables, Australia's energy bills would be even higher as failing coal plants and gas prices exposed to global events push prices up (CSIRO 2024). In fact, our coal generators are forecast to be out of our main electricity system by 2038 at the latest. We need more renewables backed by storage to continue to come online. Renewables spread across different states and backed with storage like batteries and pumped hydro can operate 24/7 (Australian Energy Market Operator 2024).

Renewables give more local control: One of the biggest advantages of renewable energy is that it puts households and communities in the driver's seat. Across Australia we are seeing more and more communities take charge and invest in renewable energy, whether it's on their own rooftops or through community-owned solar or wind farms. This helps keep savings in the community and supports them to get to net zero as quickly as possible. Even better, it helps communities become more self-reliant and less exposed to global shocks to fossil fuel supply chains.

BENEFITS FOR NATURE

Nature can be better off: Done right, a rapid transition to renewable energy is far better for nature than continuing to burn fossil fuels. In fact, a global study by WWF-Australia found that projected risks are up to 76% lower for biodiversity, natural habitats, and ecosystems in a rapid transition to renewables scenario (WWF-Australia and Boston Consulting Group 2023). The extent to which the energy transformation is better, and can produce outcomes for nature, depends on how well we implement it.

Smaller footprint: To power our own energy needs with renewables it's estimated Australia would only require 1,200km2 - 2,000km2 or 0.0002% of Australia's landmass (Blakers 2023). By contrast, agriculture already uses more than 55% of Australia or 3,500 times the amount of land needed to power Australia's domestic energy supply with renewables (Climate Council 2025). Australia already has over 790,000kms of power lines and the shift to renewables will only require 10,000km more to be built (Australian Energy Regulator 2024, Australian Energy Market Operator 2024). Find out more about renewables and recycling in the next chapter.

Renewables can improve nature outcomes: We are seeing fantastic examples globally of renewable projects that go above and beyond for nature. This is the change we want to see and are most excited about. Whether it's providing pollinator and bird habitats underneath or above solar panels, rewilding species in a renewable energy park, or growing artificial reefs off the base of offshore wind turbines, there are exciting opportunities for nature in a renewables transition done right (WWF-Australia, n.d., Waite and Copping 2025).

PROGRESS OF RENEWABLES

History of innovation: Renewables aren't new for Australians! Australia first started generating renewable electricity through a hydro dam in Tasmania in 1916 and built its first wind and solar farms in the 1980s (Dean et al 2025). Communities have lived through many transitions before such as the shift from gas to electric street lighting in the 1920s and the rollout of transmission infrastructure in the 1950s (Dean et al 2025).

Progress is well underway: In 2024, Australia's main electricity grid averaged 40% of total energy generated from renewables through the year and is on track to meet and beat the Federal Government's current target of 82% by 2030. South Australia is leading the way with 2024 on average reaching over 70% renewable energy generation (Open Electricity 2024).

Community energy projects: Australia has more than 120 community energy projects and is growing (Pollination 2024). Whether it's First Nations-led microgrids powered by renewables, communities investing and owning their own wind and solar farms, or communities investing in local neighbourhood batteries, communities are seeing the benefits of renewables.

People are stepping up to call for renewables that are good for nature.

In recent years, we've seen more and more prominent people and organisations globally demand 'nature-positive' energy systems. 'Nature-positive' energy systems will help contribute to the global Nature Positive goal to 'halt and reverse nature loss by 2030 on a 2020 baseline, and achieve full recovery by 2050" (Nature Positive Initiative 2023). This call is supported by numerous national and global targets (see our explainer in the breakout box, below). Fundamentally, it's about the actions we must take to ensure our planet continues to nurture life.

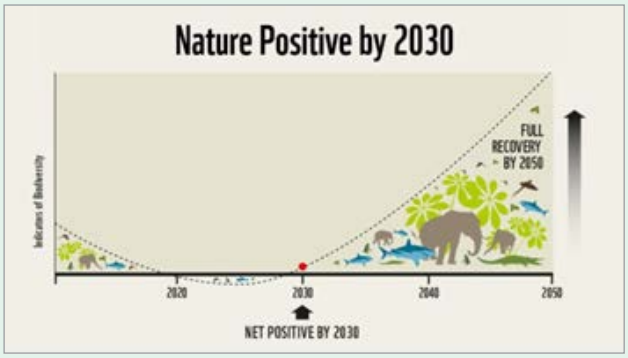
This requires governments and companies across all industries - not just the energy sector - to take responsibility for tackling global warming and to roll up their sleeves and work with communities to actively protect and restore nature at the same time.

The following chapters outline the current state of play and priority actions governments, industry and communities can take to realise a vision for a renewable energy transition that benefits people, the climate – and nature.

WHAT IS 'NATURE-POSITIVE'? GLOBAL AND NATIONAL TARGETS

The global and national goal of nature-positive is to 'halt and reverse nature loss by 2030 on a 2020 baseline, and achieve full recovery by 2050'. (Nature Positive Initiative 2023)

The nature-positive goal is to nature what net zero is to climate - it sets a clear global benchmark to not only halt nature loss, but to also restore and enhance it. With nature and climate intrinsically linked, the nature-positive and net zero targets, and the imperative to reach them, are too.



Nature Positive by 2030 is a global goal to halt and reverse nature loss by 2030 and reach full recovery by 2050. Source: Nature Positive Initiative 2023.

Global

This nature-positive goal underpins the Kunming-Montreal Global Biodiversity Framework, the nature equivalent to climate's Paris Agreement adopted in 2015 at COP21 to 'limit global warming to well below 2°C above pre-industrial levels, while pursuing efforts to limit the temperature increase to 1.5°C (United Nations Framework Convention on Climate Change, n.d.).

Australia joined 196 countries for the Convention on Biological Diversity to adopt the Global Biodiversity Framework at COP15 in 2022. It consists of 23 targets, running the full gamut of planning and regulation, societal and economic transformation and 'on-ground' change. It obliges each party to contribute to these goals and targets in line with their national circumstances, priorities, and socio-economic conditions.

To find out more visit: https://www.cbd.int/gbf

National

Some, not all, of the global nature-positive targets are reflected in Australia's Strategy for Nature 2024-2030, the Australian Government's National Biodiversity Strategy and Action Plan. Released ahead of the 2024 Nature Positive Summit in Sydney, the action plan features three goals with 12 underlying objectives – and six national targets. Importantly, these include:

- **Protect and conserve 30% of Australia's landmass and 30% of Australia's marine ecosystems by 2030 (30×30).**
- **Priority degraded areas are under effective restoration.**
- **No new species extinctions.**
- **Minimise impact of climate change on biodiversity, including through embracing nature-based solutions and avoiding negative impacts.**

The strategy was endorsed by, and followed collaboration between, state and federal environment ministers who earlier agreed to work together to achieve a 'Nature Positive Australia' aligned with the ambition in the global framework ("Environment Ministers' Meeting 9 June 2023 Agreed Communique" 2023; Meeting 24 June 2024 Agreed Communique" 2024).

To find out more visit https://www.australiasnaturehub.gov.au/national-strategy

Right. Koala on Raymond Island **Credit:** Bosco Yip / iStock

Are we on track to meet the Nature Positive goal and Australian targets?

Despite some progress, and these relatively new targets, Australia's nature continues to decline. While up-to-date and reliable data and information remain difficult to find and source, consecutive State of the Environment reports confirm it. While more ambitious than in the past, Australia's current emissions targets are not aligned with limiting warming to 1.5 degrees and require a step up in ambition to reach net zero before 2040. Clearly, more needs to be done.

RESOURCES

To keep reading about the concept of nature-positive, check out:

- The Nature Positive Initiative, which represents conservation organisations and others coming together to drive a shared understanding of 'nature-positive'
- WWF International and Boston Consulting Group's Building a Nature-Positive Energy Transformation

WHAT GOVERNMENTS CAN DO

OUR VISION FOR GOVERNMENTS

We see a future where a strong and ambitious renewable energy transition is backed by nature-positive policies that halt and reverse climate change and nature destruction in Australia.

- Guided by ambitious climate and renewable targets, strong community engagement and comprehensive nature targets, the renewables rollout happens at the pace and scale needed to limit global warming to 1.5°C. This averts further climate damage, makes energy reliable and affordable for Australians, and supports new green export industries.
- The Australian Government has invested in the enabling policies and infrastructure to move to a circular economy, which reduces waste and demand for raw materials. Energy efficiency is prioritised and distributed energy resources are maximised, reducing the footprint of the large-scale energy infrastructure that Australia needs.
- Strong and clear environmental laws aligned across state and federal governments – supported by comprehensive and accessible environmental data, research, and well-resourced approvals processes – provide certainty for developers and communities, so they can be confident they're building renewables where they cause the least possible harm to nature. A 'net gain' standard is legislated so renewable energy developments deliver biodiversity outcomes.
- With the support of Local Energy Hubs and other resources, including actions under the First Nations Clean Energy Strategy, communities are effectively contributing to regional planning, benefiting from the renewable energy transition, and supporting nature-positive outcomes.

WHY SHOULD GOVERNMENTS CARE?

It's vital all levels of government do their best to tackle the nature and climate crises together. It's good for communities, ecosystems and the economy – this is the business of governments of all levels.

Despite the adoption of stronger targets, more is needed from Australian governments. The Australian Government has a vital role to support and coordinate our response to the nature and climate crises at home. These are massive issues that require serious investment and national leadership beyond the current level of commitment. For example, ACF's 2023-24 budget analysis showed that less than one cent for every dollar the Commonwealth planned to spend was allocated to climate and the environment (Australian Conservation Foundation 2024).

Australian communities, cultural heritage, endemic species and environmental systems continue to be seriously impacted by worsening climate conditions, including the catastrophic Black Summer bushfires and severe coral bleaching events highlighted earlier in this plan (Intergovernmental Panel on Climate Change (IPCC) 2022). Yet, Australia remains the second largest global exporter of emissions (UNSW Media 2024). Australia also continues to approve new and expanded coal and gas mines (The Australia Institute 2024).

The Australian Government has made international commitments to address the climate and nature crises that we face:

- **Climate:** Through the Paris Agreement, Australia has agreed to help limit global heating to 1.5°C. Australia has legislated targets to 'reduce national emissions by 43% by 2030' and to 'achieve 82% renewable electricity by 2030' (Department of Climate Change, Energy, the Environment and Water 2025). However, this level of ambition is not enough for Australia to play its part. A much higher level of ambition is required as the Australian Government considers its new 2035 targets. For Australia to be aligned with 1.5°C, we need to reach net zero across our whole economy by 2040 at the latest, and coal and gas must be phased out of our electricity supply by 2035 (Climate Resource 2023; Australian Conservation Foundation 2025).
- **Nature:** Australia is a signatory to the Kunming-Montreal Global Biodiversity Framework, which commits nations to halt extinctions, restore degraded ecosystems and reverse biodiversity loss. Australia has adopted a '30 by 30' target to protect and conserve 30 per cent of our land and 30 per cent of our marine areas by 2030 (Department of Climate Change, Energy, the Environment and Water 2024). For more information, refer to the breakout box What is Nature Positive? on page 16. Australia also has a target for no new extinctions under the Threatened Species Action Plan 2022-2032 (Department of Climate Change, Energy, the Environment and Water 2022). Yet, the implementation of these targets remains largely unfunded and, as you have already read, the state of our nature remains in decline.

Photo. The Australian Government has made international commitments to address the climate and nature crises that we face.
Credit: asiafoto / iStock

Ultimately, tackling the climate crisis requires the decision to stop approving new coal and gas mines and replace our fossil fuel exports with cleaner industries. An ambitious renewable energy roll out will ensure we do our part to avert climate disaster while providing more reliable and affordable power for Australian communities and industries.

It will also underpin a profitable agricultural system. Renewable energy projects are expected to deliver $9.7 to $11.7 billion in landholder payments and regional community contributions between 2024 and 2050 (Clean Energy Council and Farmers for Climate Action 2024). By contrast, climate change has already caused a 23 per cent reduction in Australian farm profits between 2000 and 2020, with further falls expected of up to 50 per cent in the next three decades if greenhouse gas emissions are not significantly reduced and farming practices don't adapt to a changing climate (Morton and AAP 2021).

At the same time, we can't afford new energy infrastructure to impact threatened ecosystems and species. Embedding targets that are positive for nature in the renewable energy transition will enable energy developers, landholders and communities to restore degraded landscapes and improve biodiversity, unlocking significant environmental, community and economic co-benefits for generations to come. We truly believe this can and must be done.

Photo. Sheep graze under solar panels **Credit:** zsolt uveges / Shutterstock

HOW CAN GOVERNMENTS SUPPORT AN ENERGY TRANSITION THAT'S POSITIVE FOR NATURE?

Accelerate the transition to a renewable energy system that is good for nature and people through laws, policies, investments and planning.

Achieving and strengthening renewable energy and biodiversity targets will require new and updated laws, regulations and policies at the state and national level. We need all levels of government to work together to get these settings right (World Economic Forum 2024).

Coordination and alignment of policy and regulatory frameworks across jurisdictions are top priorities. An agreement between national, state, and territory governments about the key policy objectives, planning reforms, and incentives needed to deliver a nature-positive renewables rollout will provide industry and communities with the clarity and coordinated support they need to act.

> **The collection of data and information is fragmented and disparate. There is no clear, authoritative source of environmental information that people can rely on. This adds cost for business and government, as they collect and recollect the information they need. It also results in lower community trust in the process, as they question the quality of information on which decisions are made and the outcomes that result from them.**
>
> PROFESSOR GRAEME SAMUEL AC, SECOND INDEPENDENT REVIEW OF THE EPBC ACT (2021)

Comprehensive and accessible environmental data and analysis determine the quality of planning decisions and the impact of new developments. Ecological research is urgently needed to fully understand, assess, and mitigate risks effectively. A robust evidence base is essential to making environmentally, socially, and culturally appropriate decisions.

The Australian Government can also spearhead the development of local and regional plans to help guide the achievement of national biodiversity protection targets whilst meeting our renewable targets. These plans should encompass restoration, protection, and threat management and be created in collaboration with First Nations people and other key stakeholders. This resource will assist developers and communities in identifying the most effective areas for environmental work to contribute to biodiversity targets.

Incentivising energy efficiency across the economy and maximising the role of small-scale renewables, like rooftop solar and batteries, can reduce the required footprint of large-scale renewables and new transmission lines. Greater investments in policies and programs that reduce overall energy demand will also help ensure that our economy's appetite for energy does not continue to grow unsustainably.

Investing in policies and infrastructure for a circular economy will facilitate the recycling of raw materials, including critical minerals for renewable energy (WWF International, n.d.). This approach will reduce demand for new energy and mining, eliminate waste, and retain greater value within the economy. It will also limit further environmental degradation during the renewable energy transition, for example, through land clearing or unsustainable mining practices.

DID YOU KNOW? RECYCLABLE RENEWABLES

It's critical the shift to renewables also supports efforts to reduce waste and create a 'circular economy' whereby products and materials are reused and repurposed in new ways. A large majority of renewable energy technologies are already recyclable, with scope and need for more of this to occur.

Currently about 90% of a wind turbine and 95% of a solar panel are recyclable, including steel, aluminium, copper and cast iron (Clean Energy Council, n.d.). The remaining amount requires research, development and investment to identify new uses. This research needs to be scaled up, but it is already happening (Circular PV Alliance 2023). For example, Acciona are currently exploring new ways to transform decommissioned wind turbine blades into new materials and products in Australia (ACCIONA 2025).

We need to see greater investments from government and industry now to create the right infrastructure and operating environment for further recycling. Positively, governments, including the New South Wales and Queensland governments, are investing in solar recycling pilots, but this needs to be scaled and prioritised to help the transition further reduce its environmental footprint and need for raw minerals (NSW Environmental Protection Agency 2024).

The other good news is that most of the mineral needs for the shift to renewables can be supplied by recycled minerals by 2050. Demand of the seven studied critical raw minerals can be reduced by 58% from now to 2050 with new technology, circular economy models and recycling but we need to invest now (WWF International, n.d.).

Even better, the shift to renewables does not need deep seabed mining and other seriously harmful environmental practices like other energy sources. That is, it is entirely possible to decarbonise our economy with much less material footprint than the current fossil fuel-based economy.

Photo. Recycled wind blades used for a playground in the Netherlands - Blade<ade. Designed by REwind Willemsplein Superuse
Credit: Jos DeKrieger.

Overhaul national and state environmental laws to ensure all projects, including renewable energy projects, protect and restore biodiversity.

Australia's toothless nature laws are broken. Laws that should act as guardrails against the ongoing degradation of nature have become a clunky administrative hurdle for project approvals, whether fossil fuels, renewables, agriculture or housing developments. Reforms to Australia's environmental laws, including the Environmental Protection and Biodiversity Conservation Act, are the key to getting the energy transition right.

Right now, there are legitimate concerns surrounding select individual renewable energy projects. Inadequate site selection and environmental safeguards have, in certain cases, led to habitat destruction and impacts on threatened wildlife. This undermines Australia's ability to meet its targets to halt biodiversity loss and restore degraded ecosystems, erodes trust in the energy transition and increases community opposition to renewable energy (Dyer 2024).

Photo. Red Goshawk in Queensland, Australia
Credit: Imogen Warren / iStock

Governments have a mandate to strengthen environmental laws to ensure the environment is effectively protected and restored during the energy transition. Industry has identified environmental assessments and approvals as a priority issue. Greater resourcing for relevant departments is needed to enable faster decisions about clean energy projects, with care taken to ensure that 'fast-tracking' does not undermine environmental protections.

Planning regulations can be strengthened to avoid or minimise harm to our natural world. For example, already cleared and degraded land close to major energy users can be prioritised for new energy infrastructure to avoid further deforestation or other ecosystem damage and wind farm locations should be selected considering the needs of local and migratory species to minimise collision risk with birds and bats.

Government procurement and other funding criteria can send a clear message to developers to restore land and boost biodiversity - for instance, by removing invasive species and creating linked habitat corridors. This has been done overseas: the United Kingdom has implemented a Biodiversity Net Gain mandate, which requires all new developments to 'achieve a 10% biodiversity net improvement' (UK Government 2024).

Mapping multiple land use attributes can help governments and industry improve their decision-making regarding the identification of low impact development-appropriate sites. Governments, companies, and research institutions, are developing these mapping tools to identify suitable renewable project and infrastructure locations. The tools vary widely depending on their data and purpose and can assess factors like grid access, environmental constraints, and land use. See below for an example of a renewable energy and biodiversity mapping tool being developed by ACF and the University of Melbourne.

CASE STUDY: NATURE AND ENERGY MAPPING

Maps are a useful starting point for collaborative conversations between the energy industry, governments, regional communities, farmers, conservationists and Traditional Owners to identify the most appropriate places to build.

By integrating good quality environmental data into decision making, projects can make better use of existing infrastructure and find sites with good quality wind and/or solar potential and grid access that avoid high conservation value lands.

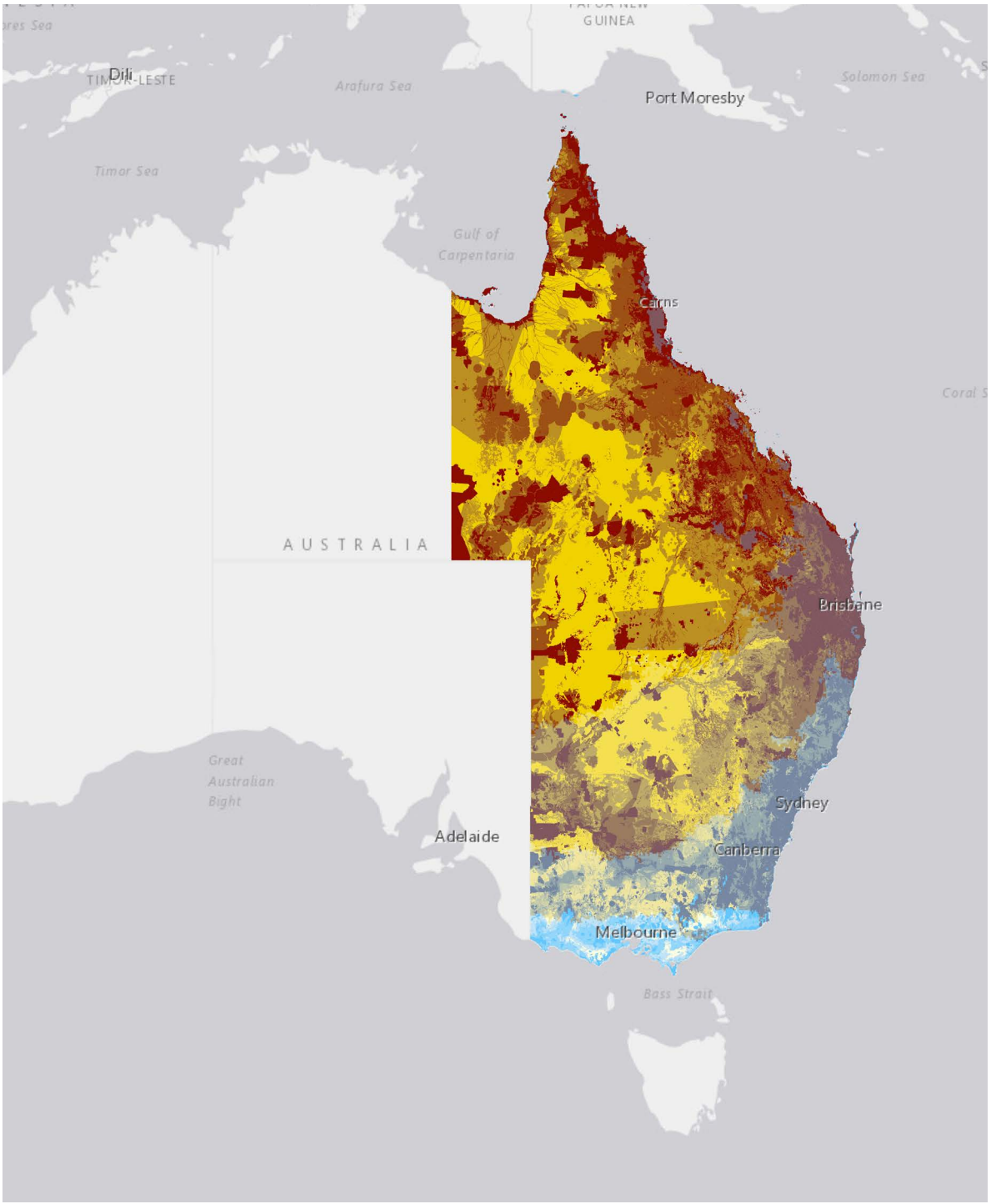
Environmental values need to become a higher priority in grid and network planning to ensure, over the next two decades, we build smart and think ahead about where our energy resources will need to come from to avoid land use conflicts. Historically, energy infrastructure has been built based primarily on economic and technical efficiencies, rather than early consideration of where projects can access already cleared or degraded land. This needs to change.

There are several projects under development to map this. One is a joint initiative between ACF and the University of Melbourne. While some renewable energy projects, particularly in Queensland, are being proposed in areas of high biodiversity conservation value, this mapping proves it doesn't have to be this way.

These maps identify how and where Australia can meet a 100% domestic renewable energy target while protecting biodiversity. The analysis found areas of high biodiversity conservation value and high agricultural value need not constrain renewable energy development. Indeed, there is an abundance of low biodiversity value land that is in reach of the transmission network where large amounts of wind and solar energy can be generated.

Photo. Effective mapping can ensure that renewable energy projects are sited to avoid negative impacts on the habitat of endangered species like the greater glider **Credit:** Matt Wright

Solar and biodiversity mapping



Light Gray Canvas Reference

Bi variate (biodiversity value x solar capacity factor)

Solar_CF

zonation_B

High - High

High - Low

Low - High

Low - Low

Light Gray Canvas Base

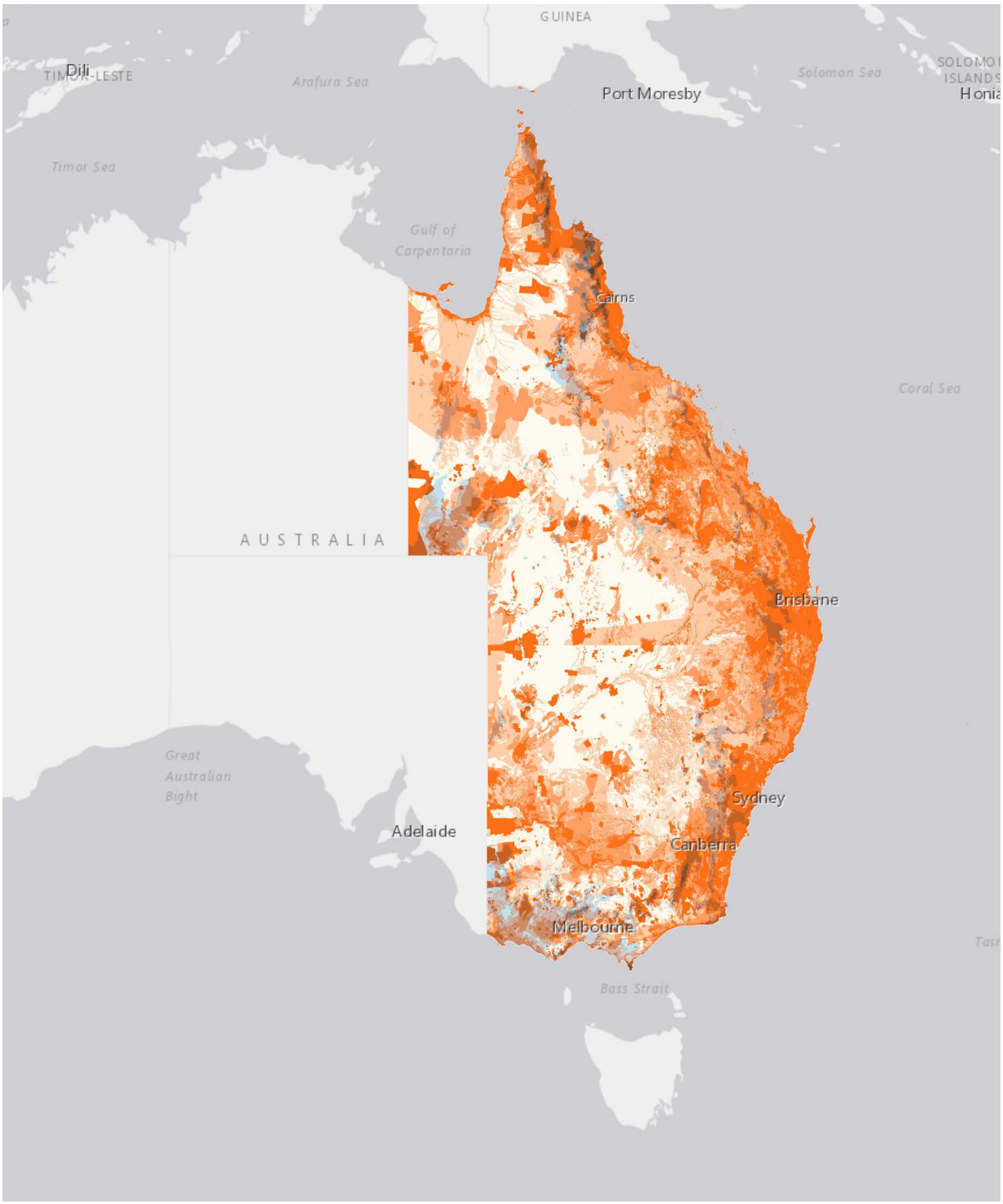
1:20,641,690

0 215 430 860 mi

0 337.5 675 1,350 km

Esri, Esri, HERE

Wind and biodiversity mapping



Directly invest in policies and programs, such as Local Energy Hubs, to support communities to shape and benefit from the transition.

A renewable energy transition that is good for nature depends on a transformation of land management and energy infrastructure across the country. These changes would be concentrated in the rural and regional areas that host most of Australia's biodiversity, energy infrastructure, and other projects critical to reaching net zero.

Communities and landholders should be at the centre of decision making. The Australian Government and state and territory governments can facilitate inclusive regional planning, underpinned by quality environmental data and effective community engagement, and improve community benefits.

We need better planning for where renewable projects go, especially in Renewable Energy Zones. Stronger regional planning means listening to local communities and properly considering nature.

By mapping out high-value conservation areas and "no-go" zones, governments can protect important ecosystems while also finding the best places for renewables to benefit nature. This smarter approach will help us tackle climate change and restore the environment at the same time.

Renewable energy projects will bring billions of dollars to regional areas in the coming decades. To make sure communities get the best deal, governments must invest in support to help them understand benefit-sharing options.

By fostering partnerships between developers, First Nations people, Landcare, and local groups, we can ensure these projects deliver lasting benefits: for people, nature, and the places we call home.

A federally funded but independently governed Local Energy Hubs network, which many groups are now calling for, could provide this support for regional communities (RE-Alliance, Community Power Agency, and Yes2Renewables, n.d.). Strong investment in the newly announced First Nations Clean Energy Strategy will also support positive outcomes for First Nations people throughout the energy transition (Department of Climate Change, Energy, the Environment and Water 2024).

Photo. Thumbs up for Hubs in the Hunter Community meeting in Newcastle **Credit:** Local Energy Hubs

KEY TAKEAWAYS

- Government policy and investment will determine whether the scale, pace and conditions of the energy transition are up to the task of tackling the climate and nature crises.
- Addressing the climate and nature crises together, working with industry and communities, will minimise the risks of future climate damage while maximising community, environmental and economic co-benefits for generations to come.
- Developing and funding timely, mission-oriented policies and programs will create the enabling conditions needed to accelerate the transition to renewable energy AND reach Australia's biodiversity targets.

TOP 3 ACTIONS GOVERNMENTS CAN TAKE

1. Accelerate the transition to a renewable energy system that is good for nature and people through laws, policies, investments and planning.
2. Overhaul national and state environmental laws to ensure all projects, including renewable energy projects, protect and restore biodiversity.
3. Directly invest in policies and programs, such as Local Energy Hubs, to support communities to shape and benefit from the transition.

RESOURCES

To keep reading about what government can do, check out:

- This article in The Conversation by Brendan Wintle and others, A renewable energy transition that doesn't harm nature? It's not just possible, it's essential
- The Coalition Linking Energy and Nature (CLEANAction) report, Nature-safe Energy: Linking energy and nature to tackle the climate and biodiversity crises

WHAT INDUSTRY CAN DO

OUR VISION

We see a future where industry ensures all projects yield positive environmental outcomes and significantly contribute to Australia's nature and climate goals and targets. In this future, industry is:

- Proactively considering nature and integrating nature-positive thinking into business strategies and targets.
- Using biodiversity mapping and data to site renewables in the best places and identify nearby biodiversity zones or restoration areas where early conservation works can occur ahead of any impacts that may occur.
- Employing market-leading technology to monitor and work on further reducing the project's impacts during construction and operational stages.
- Collaborating with other developers/partners at a regional level to drive landscape-scale improvements, protecting, enhancing and restoring large-scale habitat corridors, contributing to invasive species management or specialised threatened species programs.
- Striving towards a circular economy and contributing to national and global targets.
- Advocating for stronger and more ambitious timeframes for climate and nature policies and commitments from governments to complement their forward-looking approach.

WHY SHOULD INDUSTRY CARE?

An energy transition that is good for nature and people makes good business sense. Building our green energy export industry could generate $89 billion and create close to 400,000 new jobs for Australians by 2040 (WWF-Australia 2021). Communities and shareholders worldwide are raising their expectations about what companies should be doing to address climate and nature challenges. Companies across all industries are now expected to report their climate and nature-related financial risks and actions. Investors and buyers of renewable energy, meanwhile, are looking for projects that benefit the environment (Business Renewables Centre Australia 2024). An industry that engages early and well with communities can benefit from greater support and less opposition to projects.

Photo. Yulara Solar project by Ark Energy
Credit: Ark Energy

Luckily, some leading companies are charting the way towards better practice. We need others to follow suit. Like any industry, some players perform better than others, and sometimes, individual companies have great projects and not-so-great projects. One bad project can ruin it for everybody, threatening community support, damaging the environment, and empowering the fossil fuel lobby.

Biodiversity loss is often a 'death by a thousand cuts'. If not done well, renewable projects risk contributing to those cuts. All sectors of our economy need to improve, and the renewable energy industry is no different.

HOW CAN INDUSTRY SUPPORT AN ENERGY TRANSITION THAT IS GOOD FOR NATURE AND PEOPLE?

Site renewables in the right places with adequate buffer zones to protect nature. This means avoiding areas like national parks, world heritage and key biodiversity areas, wetlands or locations critical to the survival of threatened and endangered species.

There's a phrase your grandma may have shared with you - 'a stitch in time saves nine'. The same logic applies to the energy transition. Developers already must follow what is known as the 'mitigation hierarchy' when seeking project approvals. It's a widely accepted framework for addressing the impacts of development on nature.

The mitigation hierarchy puts avoiding nature loss and reducing nature harm first and of the highest priority. It's the least costly and most effective way of protecting nature. In practical terms, this typically means choosing locations for projects that avoid significant impacts on nature. The reality is that all new developments will have some impact on nature, even for the most degraded sites. That's because nature is, well, everywhere, and is also adapting and changing all the time. However, not all hectares are equal, and it is important that industry is supported to choose sites away from areas identified as holding high conservation values.

DID YOU KNOW? THE MITIGATION HIERARCHY AND NATURE- POSITIVE INFRASTRUCTURE

When developers seek environmental approvals under state and federal laws, they must typically demonstrate how they have worked through a series of steps to avoid, minimise and compensate for impacts. This is known as the mitigation hierarchy.

Though there is variance in the mitigation hierarchy in different areas, the general steps as they apply to renewable energy projects is as follows and should be followed sequentially:

- **Avoid** negative impacts (e.g. careful choice of project location, limit area footprint).
- Aim to **minimise** impacts (e.g. placement of turbines/panels, smart monitoring technology to reduce risks to wildlife, use of recycled material to reduce resource demand).
- **Restore** and regenerate habitats after unavoidable impacts (e.g. clearing of habitat for construction roads).
- **As a last resort offset** any residual impacts with credible biodiversity offsets to ensure that there is no net loss and ideally a net gain.

Historically, across all sectors of the economy, there has been an underemphasis on the “avoid” stage of the mitigation hierarchy, instead relying on smaller changes at later stages once projects are largely designed and financed.

It is critical that the avoidance step is the highest order priority for all projects and offsetting is used as a very last resort. Australian developments have a long history of using offset systems and though there are differences across states, by and large they have not contributed to the protection of nature and instead can further accelerate the loss of nature.

Increasingly the expectations are that all infrastructure developers move from a ‘no net loss’ approach to avoiding and minimising impacts to a ‘nature-positive’ infrastructure development. This means going beyond thinking only about mitigating direct impacts to consider how a project can contribute to an overall enhancement or ‘net gain’ for biodiversity and nature through additional measures that protect and restore ecosystems.

Photo. Seeding native plantings beneath SA Water solar farm in South Australia **Credit:** Seeding Natives

Poor site selection can easily alienate the local community. It also drives up project costs and is likely to complicate design plans, permits, and approvals. While other challenges can be overcome in renewable developments, poor site selection cannot.

Developers must avoid high or very high nature value locations that are not compatible with development, including National Parks and World Heritage Areas, Key Biodiversity Areas, Ramsar wetlands, and areas critical to the survival of threatened and endangered species such as koalas, greater gliders, and bats. Locations should also consider adequate buffers to these places and interactions with migratory pathways of species.

Wherever possible, development on cleared land and closed industrial sites is more likely to avoid significant nature impacts. This includes using decommissioned coal-fired power stations and mine sites. Often such sites offer new opportunities for additional nature regeneration (The Nature Conservancy 2024).

Site selection relies on the information available about the natural environment. It also depends, at least in part, on good-quality guidance and advice from governments. Companies should find the best information they can and call on governments when they need to improve.

When siting and designing a project, companies should minimise their total infrastructure 'footprint'. One way to do this is to share certain infrastructure, like access roads and transmission networks, with others in the region. This reduces environmental impacts and costs of duplicate developments.

Another way is to prioritise areas with compatible land use. For example, cattle, sheep and even many forms of cropping are highly compatible with wind farms (Clean Energy Council and Farmers for Climate Action 2024). On-farm studies show wool yield increases where sheep graze under solar panels (Lightsource bp 2024).

Sharing sites with productive farms offers landholders an additional revenue stream, with a 2024 Farmers for Climate Action and Clean Energy Council report revealing farmers can earn $38,500 to $45,500 per year from hosting a typical 7MW turbine – and up to $1,250 per hectare from solar. For comparison, a beef farmer can expect returns of $1,500 per hectare per year in a good year (Clean Energy Council and Farmers for Climate Action 2024).

Using the best-known technologies and solutions to minimise environmental impacts is essential throughout the project. As The Sustainable Infrastructure Tools Navigator shows, many options are now available, including a lot that have benefitted from major global advancements and which are considered tried and tested. Several technologies have emerged to minimise impacts on local species including early detection systems to prevent wind turbine collisions with bird and bat species. There are many examples of wind farms trialling these technologies in Australia, including at Cattle Hill wind farm in Tasmania (see page 33 opposite).

Photo. Sheep grazing under solar panels on Winton Solar Farm
Credit: Tessa Stevens / ACF

Developers need to extend their environmental considerations throughout the project's life. This means reducing waste across the supply chain, finding ways to do more with less, eliminating end-of-life materials that go to landfills, and reducing demand for critical raw minerals and resources. Investments in research and development to support a circular economy are vital. (See our Recyclable Renewables breakout box in the previous chapter).

All this is because nature requires it, but also because the fossil fuel lobby use examples of poorly sited projects to try and delay the renewable energy transition. Renewable companies that contribute significant waste to landfill provide excellent material for anti-renewable campaigns. Upholding high standards has never been more crucial. In fact, we'd love to see a race to the top for best-practice energy projects - whether for renewables, transmission, or storage – as developers strive to achieve the best possible conservation outcomes.

CASE STUDIES: MINIMISING IMPACTS AND IMPROVING NATURE OUTCOMES

Identiflight, Cattle Hill, Tasmania (150MW - Operating)

Cattle Hill Wind Farm hosted the first commercial application of IdentiFlight, now used around the world. It works by using artificial intelligence and camera systems to identify eagles flying towards wind turbines at which point the turbine slows or stops. Initial issues were faced and once rectified, no further strikes or deaths have been observed by the camera systems or credible human observers (Vorrath 2024).

For more information on Cattle Hill visit: https://cattlehillwindfarm.com/

Photo. Cattle Hill Wind Farm, Tasmania **Credit:** Carbon Zero Initiative

Lightsource bp's Wellington solar farm

One solar farm operator in New South Wales is taking steps to protect and enhance nature.

Lightsource bp has collaborated with the University of New England and EMM to research native fauna and vegetation on the site of its Wellington solar farm. Early results indicate native grasslands can be maintained and possibly improved alongside the operational solar farm.

Lightsource bp is also prioritising shared land use on its solar farms. This includes grazing livestock around solar panels and by cultivating grasses and pollinator-friendly flowers to benefit insects and to provide wildlife habitat (Business Renewables Centre Australia 2024).

For more information on Lightsource bp's Wellington solar farm visit: https://lightsourcebp.com/au/project/wellington-solar/

Ensure every project benefits nature.

Principles to ensure renewable energy is good for people and planet and 'net gain' goals are increasingly what governments and consumers expect as the standard for developers. Biodiversity 'net gain' is an approach to development that ultimately improves biodiversity, and aims to leave more nature than before.

Merely adhering to current environmental assessment processes won't cut it. Most Australian environmental laws are – ironically - not strong enough to genuinely protect the environment. Instead, they allow developers to do harm to nature and overlook the impacts on threatened species.

More companies are starting to develop 'net gain' methodologies that benefit nature, like regenerating degraded creeks and rivers or enhancing habitat connections.

One example of a company embracing net-positive biodiversity impact is offshore wind farm developer, Orsted. Orsted has made a commitment for all new renewable energy projects, that it commissions from 2030. More companies need to follow this lead, integrating principles for renewable energy developments that are good for the planet into business plans and adopting biodiversity targets.

Photo. Offshore wind turbine **Credit:** Jesse De Meulenaere / Unsplash

Partner with communities, businesses and government to deliver lasting benefits for people and the local environment.

To shift from fossil fuels to renewable energy at the speed and scale the climate crisis requires - and to accomplish this sustainably and positively for nature requires solutions that can't be implemented piecemeal, focused on just one project, or company, or region at a time.

Renewable energy that is good for people and planet needs to be directly embedded in the transformation of the larger energy system through new levels of coordination. This includes the broader process of building infrastructure, producing and using energy, and supporting and managing economic activities at a larger scale and on a longer timeline.

We need a clear and consistent way to measure the impact of renewable energy projects on people and nature at every stage of development. More and more tools are being created to track how businesses affect biodiversity and show whether their actions are making a real difference. These tools help improve transparency and prevent companies from making misleading claims about their environmental benefits. One example is the Accounting for Nature method, a globally recognized, science-based approach to measuring environmental health (Accounting for Nature 2025).

Working together, we can do better. Strong partnerships with environmental, community, and First Nations groups will produce projects that manage risks and deliver positive outcomes for climate and the environment. These projects tell a great story of what's possible and in turn, will win greater community support.

First Nations peoples have shown care for Country for tens of thousands of years. A transition for nature and people means empowering First Nations communities at every opportunity. This includes ownership of projects, contracting, benefit sharing and opportunities for training and employment partnerships with First Nations People in Australia. A few examples of this work already in action are outlined below, noting it is important to seek individual First Nations' guidance on a project-by-project basis.

Investing in - and working with - local communities, small businesses, and farmers is also important.. There's nothing quite like local knowledge and all the value it brings for mitigating any impacts and caring for and restoring the land.

Photo. Rangers on Olkola Country
Credit: Keyona Iverach, Olkola staff

CASE STUDIES: EMPOWERING FIRST NATIONS PEOPLE

East Kimberley Clean Energy Project

East Kimberley Clean Energy Project is a pioneering First Nations-led clean energy project, seeking to develop green hydrogen and green ammonia exports (Aboriginal Clean Energy 2025). It would have a variety of purposes, for example using ammonia produced for local irrigated agriculture, mining industries and export to nearby countries.

Photo. Lake Argyle, Western Australia **Credit:** markrhiggins / iStock

A partnership between Balanggarra Aboriginal Corporation, MG Corporation, Kimberley Land Council and Pollination, it aims to empower Traditional Owners as shareholders and to utilise existing infrastructure. The project is progressing, receiving $1.67 million of ARENA funding to support a Stage 1 feasibility study, with Stage 2 of the study continuing in 2025 (Hysource 2025).

First Nations Clean Energy Network

First Nations Clean Energy Network is a network of First Nations people, community organisations, land councils, unions, academics, industry groups, technical advisors, legal experts, renewable companies and others working together to ensure First Nations communities share in the benefits of clean energy. They share a range of resources and materials as well as showcase First Nations clean energy initiatives across Australia.

To find out more about First Nations clean energy projects visit: firstnationscleanenergy.org.au/

Developers can and should collaborate with environmental groups to combat misinformation and disinformation that is delaying progress on the renewables transition and find solutions to the big challenges. This is already happening. WWF-Australia and Orsted are working together on innovation, government advocacy, and cooperation with others to support offshore wind and enhance biodiversity.

In Australia, many renewable energy companies are working together to achieve better outcomes for nature. This includes global initiatives like the Coalition Linking Energy and Nature (CLEANAction), which aims to protect nature during the transition, along with projects carried out by the Clean Energy Council, Australia's renewable energy association (2025).

Companies should commit to work with and empower the community through the project lifecycle to benefit that community and its natural environment.

Renewable developers should make sure benefits are shared fairly and extend beyond just the project site. And they should also team up with local groups to fund and support environmental projects both on-site and across the region.

Many local and regional organisations have strong knowledge of environmental priorities already. They offer a vital starting point for companies seeking to understand how and where they can positively contribute to the broader environment.

Working with NRM or other groups offers powerful opportunities to restore landscapes, protect wildlife and strengthen communities. There are several emerging examples of this being trialled or proposed in Australia.

There is currently insufficient environmental data and capability to understand the likely impacts of many developments and any interventions made, particularly in a changing climate. Unacceptable information gaps exist. Poor data and a gap in information has consequences: in particular, industry delays and an erosion of community trust. Sharing environmental data can enhance decision-making and comprehension of cumulative environmental impacts. It can also greatly advance knowledge of species and habitats in the local area, while supporting research and conservation efforts, as demonstrated by the United States-based Renewable Energy Wildlife Institute.

Sharing intel can also make sure that the significant amount of cash spent on gathering data is not lost if a project does not go ahead. Right now, regulatory bodies can impose blanket approaches out of precaution and a lack of knowledge. Access to the right data could ease some operating restrictions. There are projects underway, like the Shared Environmental Analytics Facility, that enable data sharing to help make decisions in a robust and sustainable way.

Photo. Rob Brewster, Fran Roncolato, and Patrick Giumelli from WWF-Australia release a female platypus into the Royal National Park in Sydney. The rewilding project is a collaboration between the NSW National Parks and Wildlife Service, Taronga Conservation Society Australia, UNSW Sydney and WWF-Australia. **Credit:** © UNSW

KEY TAKEAWAYS

- Industry should care about nature, because nature supports life on earth and because there's a strong business case to do so.
- Developers should follow the mitigation hierarchy, starting with avoiding nature loss wherever possible and seeking to achieve an overall benefit for nature.
- Partnering with communities, environmental groups and First Nations groups will support better environmental outcomes.
- We need better data sharing and a shared biodiversity measurement framework to give confidence and rigour to developers' decisions.

TOP 3 ACTIONS INDUSTRY CAN TAKE

1. Site renewables in the right places with adequate buffer zones to protect nature This means avoiding areas like national parks, world heritage and key biodiversity areas, wetlands or locations critical to the survival of threatened and endangered species.
2. Ensure every project creates net gains and positive outcomes for nature.
3. Partner with communities, businesses and government to deliver lasting benefits for people and the local environment.

RESOURCES

To keep reading about what industry needs to do, check out:

- A guide developed by Business Renewables Centre Australia, WWF-Australia and others: Renewable PPAs That Are Good for Nature, People and Your Business
- Clean Energy Council's Best Practice
- IUCN's (International Union for Conservation of Nature) suite of renewable energy and nature publications
- RE-Alliance and The Energy Charter's Better Practice Renewables and Biodiversity: Opportunities for Collaboration Guide
- Community Power Agency and Stringybark Ecologicals "Building better biodiversity for Solar Farms"

WHAT COMMUNITIES CAN DO

OUR VISION

We see an energy transition future that places regional communities front and centre in decision-making about where projects go and how they are built. In this future which is good for nature and for people:

- First Nations communities and organisations are engaged as rights holders in the transition, and best practice projects deliver broad cultural, economic and environmental benefits.
- Strong incentives and facilitation lead to meaningful partnerships between industry, government, regional communities and organisations, and communities experiencing more projects that deliver net positive outcomes for nature.
- Communities are supported in the transition through a federally-funded roll out of a Local Energy Hub network, where they can access trusted and independent advice and information. Individually and as part of the groups they are in, community members are helping to curb the spread of disinformation and recognise the fossil fuel interests behind anti-renewable campaigns.

WHY SHOULD COMMUNITIES CARE?

> **Community groups - have a role in holding systems, policy makers, leaders and decision makers accountable to achieving environmental outcomes through energy development activities, in educating their community around the opportunities and need, and, in planning and participating/leading processes and activities that can practically support nature positive outcomes through renewable energy development. There are many opportunities for this to occur through volunteer led efforts to community enterprise models of ownership and stewardship of land management and regeneration initiatives.**
>
> REGIONAL NGO REPRESENTATIVE

People power is critical to supporting an energy transition that's good for nature. Communities across Australia have had many years of experience with energy transitions, from the electrification of streetlights to the original rollout of transmission infrastructure in the 1950s. The rooftop solar revolution, led by households nationwide, has brought down household energy bills and provided tangible evidence that fighting climate change can be a win-win for everyone. As we pass the 40 per cent renewables mark – on the way to 100 per cent well before 2040 – this experience, local knowledge, and advocacy power are vital to achieving a transition that's good for nature and people (Clean Energy Council 2024).

While some communities have had to oppose projects that would have had clearly unacceptable biodiversity impacts, there are also many instances where communities are the champions of renewables. In these instances, they've actively sought opportunities for on-farm renewables or explored ways to become a net zero or a 100% renewable town or community. Communities nationwide have also led the way by developing their own utility-scale energy projects, like Hepburn Wind in central Victoria (Hepburn Energy 2025).

> **We need to make sure regional host communities, First Nations and farmers have the power and support required to win the conditions they need to support nature-positive clean energy development. This means resourcing them to work with their communities, win better outcomes and have the information they need to support clean energy done right.**
>
> INTERNATIONAL NGO REPRESENTATIVE

When supported to make decisions, locals and community organisations can help balance the need to rapidly build renewables with biodiversity protection, ensuring that clean energy developments do not come at the unacceptable expense of natural ecosystems and other areas of local significance. Support for renewables remains strong, with recent polling showing that 70 per cent of regional Australians in renewable energy zones support the development of renewable energy projects on local farmland (Wahlquist 2024).

But we can do better. There are times where the pace and scale of renewable energy development has failed to protect wildlife and habitat and ignored community concerns. Some communities have faced numerous project proposals that have left residents overwhelmed and uncertain about how and where to have a say. In some cases, inadequate community engagement has resulted in anxiety and polarisation, which creates the perfect environment for misinformation and disinformation to take root and thrive. Local organisations are on the frontline advocating for better renewable practices. It's essential that this important work continues.

Community voices are critical to holding developers and governments accountable and helping achieve an energy transition that is good for nature and people.

Photo. Hepburn Wind Farm
Credit: Brodie Ellis for Hepburn Energy

HOW CAN COMMUNITIES SUPPORT A TRANSITION THAT'S GOOD FOR NATURE AND PEOPLE?

Champion renewable energy that is good for people and nature.

Local communities can be the strongest and most powerful advocates for the renewables transition, done right. In the ACT, Victoria and New South Wales, for example, auction processes are held to determine which developments can advance. When the community calls for what they want, developers have more reason to up their game to deliver on this (Clean Energy Council 2019), see case study about the Hay community below.

Communities can call for developments to be placed in suitable areas with better planning, conservation integration, and local benefits such as job creation, land rehabilitation, and meeting cultural aspirations.

Communities can work with developers to make sure community benefit programs also focus on protecting and restoring nature, not just economic and social benefits. So far, most of these programs have prioritised financial and social outcomes over environmental ones.

In short: community-driven advocacy will ensure the energy transition is swift, equitable, responsible, and sustainable.

> **There is a fantastic opportunity for conservation groups and developers to work together, rather than against each other. Conservation groups have a wealth of knowledge in this area that can be used to support developers to deliver nature positive initiatives.**
>
> ENERGY INDUSTRY REPRESENTATIVE

CASE STUDIES: PUTTING COMMUNITIES IN THE DRIVING SEAT

Hay residents chart their future

Led by local council, the community of Hay, NSW, is leading its own energy transition.

Hay Shire Council worked with renewables advocacy group RE-Alliance to get on the front foot. First, they worked with community leaders, and then the town more broadly on answering questions about what renewables, and being a part of a Renewable Energy Zone, could mean for the region. They then worked collaboratively to develop a set of documented principles to underpin negotiations with developers. Hay Shire Council is now working with The Next Economy on future economic transition plans for the region (Howden 2024; RE-Alliance 2025).

To find out more about the work underway at Hay visit: https://www.re-alliance.org.au/hay_renewables_on_their_terms

Photo. Hundreds of community members are contributing to the region's future through initiatives like the Hay and Carrathool Regional Drought Resilience Plan in 2024. **Credit:** The Next Economy

Partner with local community groups, businesses and government to deliver lasting benefits to your community and local environment.

With the right coordination and incentives, developers and communities can team up to create positive environmental outcomes at both local and broader landscape levels. We're already seeing this happen: some renewable energy projects are creating protected areas and funding local restoration efforts, leading to real gains for nature in renewable energy zones.

As more projects take this approach, community support for the transition grows. In these zones, multiple projects could be coordinated to share funding and collaborate with regional groups like Landcare, Indigenous ranger programs, NRM bodies, and farmers to achieve meaningful environmental benefits.

Counter disinformation and back calls for Local Energy Hubs.

National and regional organisations can help to combat disinformation being spread by well-funded, bad-faith actors and fossil fuel lobbyists. Communities can also check that information about projects comes from trusted sources.

Communities need support to understand how projects are likely to impact their local environment and be equipped with the tools and know-how to advocate for a better deal for nature! Federally-funded Local Energy Hubs would help communities get involved with and benefit from the transition constructively. This model, developed by the Community Power Agency, RE-Alliance and Friends of the Earth, means a network of independent local organisations would help facilitate communities' engagement with the transition and maximise benefits ("Local Energy Hubs," n.d.).

Credit: Simon Skafar. / iStock

KEY TAKEAWAYS

- People in the regions and in cities are already driving the energy transition, actively seeking options to shift to renewable energy in a way that works for them and nature.
- Communities require extra support to access accurate information, advocate for benefits for nature from projects, and realise their own environmental and cultural aspirations. Models like Local Energy Hubs can help deliver this.
- Strong collaboration and partnerships with industry can provide good outcomes for communities and the environment and build more substantial social support for the energy transition.

TOP 3 ACTIONS COMMUNITIES CAN TAKE

1. Championing renewable energy that is good for people and nature.
2. Partnering with local community groups, businesses and government to deliver lasting benefits to your community and local environment.
3. Countering disinformation and backing calls for Local Energy Hubs

RESOURCES

To read more about the power of communities, check out Taryn Lane's Hopeful Action: A Handbook for Community-led Climate Transitions

To explore what local energy hubs might look like look up the Local Energy Hubs website

To find out how Hay Shire Council put its community in the driver's seat read this case study by RE-Alliance

To learn more about community-benefits, read the Clean Energy's Guide to Benefit Sharing for Renewable Energy Projects

To read about how First Nations can negotiate benefits and develop clean energy projects on Country check out the First Nations Clean Energy Network guides

NEXT STEPS

IN AN AGE OF CLOSING WINDOWS FOR ACTION, THE POSSIBILITY OF AN ENERGY TRANSITION THAT IS GOOD FOR BOTH NATURE AND PEOPLE REMAINS NOT ONLY POSSIBLE, BUT VITAL.

To sustain life on earth we must reduce emissions, and the transition to renewable energy is the only viable way forward. The other option - continuing to burn coal and gas - will result in mass extinction and nature destruction. These are the choices we have.

Government, industry and community all have a role to play to make the energy transition work for nature and people. None of this is easy. But it must be done. This plan provides a vision for how we can get it right. It's a starting point for what needs to happen next.

Rather than solely focussing on the problems, this plan offers practical solutions. But we can't stop there. It's up to us to make this a reality, and to evolve our plans as and when we need to. We must draw on new science and lessons as they emerge, because they will. This is a fast-evolving space with incredible minds hard at work to meet the challenge. As time passes, there will be new and better ways to do things. Let's be open to that.

Our challenge to you is this: take this vision for an energy transition that's good for both people and nature and make it your own. Get behind what resonates for you. Find better ways to do it. Talk to people about it. Be a positive part of the change. Rise to the biggest challenge of our time.

We need a rapid energy transition done right, because nature deserves it, and because life on earth depends upon it.

So go forth. Plunge your toes into sand, take a walk in some bushland, and watch and listen as your local cockatoos bed down for the night from your back verandah.

Love nature.

And then do what you can to save it.

Photo. Adventurous woman exploring the wild beauty of Tasmania.
Credit: pixdeluxe / iStock

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