



Australian Government
Net Zero Economy Agency

Frequently Asked Questions

Net Zero Transformation Campaign



The Hunter

What does “net zero” mean?

Put simply, net zero means balancing the amount of greenhouse gas emissions that go into – and are removed from – the atmosphere. It will be very difficult to reduce all emissions to zero on the timescale needed. As well as deep and widespread cuts in emissions, we will likely need to scale up removals. Reaching net zero will be a balance of increasing renewable energy, electrifying everything, increasing energy efficiency and other measures such as offsets.

What is the net zero transformation, and why do we need it?

The net zero transformation refers to the process, now underway, of changing the energy system from one that is reliant on fossil fuels to one that uses renewable energy. Across the world, serious action is being taken to reduce greenhouse gas emissions and help prevent the worst impacts of climate change. The global goal is to achieve net zero emissions by 2050 – which simply means we stop adding to the problem of global warming. In Australia, this will mean the transformation of our economy to one that is driven by decarbonised industry and renewables. It involves lots of investment and the creation of new jobs and growth opportunities, especially in regional areas.

What would happen if we didn’t support the transformation?

More than 150 countries have now committed to net zero by 2050, including almost all major economies and most of Australia’s trading partners. If we don’t act we will be left behind, missing out on major economic opportunities as other global economies move to using only renewable energy. In addition, the cost of unchecked climate change for Australia is significant. Deloitte estimates up to 900,000 job losses and a \$3.4 trillion hit to our economy by 2070 if we do nothing¹.

¹ Deloitte, ‘A New Choice: Australia’s climate for growth’, Deloitte website, 2020, accessed 11 September 2024.



Why is renewable energy so important?

Building renewable energy generation and storage projects such as wind, solar and batteries provides new opportunities and cleaner energy for communities. But it is also the key to making other industries net zero: heavy industry will need to use renewable energy to reduce its emissions.

People are talking about “decarbonisation”. What’s that?

Decarbonisation is an important way for existing sectors such as manufacturing and agriculture to contribute to net zero. It means reducing or eliminating carbon dioxide emissions from a manufacturing or industrial process. For example, a steel plant might decarbonise its operations by replacing its coal furnace with an electric furnace.

Does this mean the end of mining?

No – but we will be mining different things. As the world moves from a reliance on fossil fuels, valuable new export markets have emerged for the critical minerals used in clean energy technology, this will require more mining. For example, Australia is the world’s largest producer of lithium, which is used in batteries and electric vehicles. The resources sector is playing a vital role in driving Australia’s decarbonisation, economic growth and productivity.

Recent analysis by the International Energy Agency (IEA) suggests the world will need around 50 new lithium mines, 60 new nickel mines and 17 new cobalt mines globally to meet carbon emissions goals by 2030².

What are critical minerals?

Critical minerals are metallic or non-metallic materials that are essential to our modern technologies and economies. Key technologies that use critical minerals include solar and wind energy, electric vehicle batteries and LED lighting. Australia has abundant reserves of these minerals, including lithium, alumina, nickel, cobalt and silicon.

² IEA (2022a), *Global Supply Chains of EV Batteries*, IEA, Paris, accessed September 2024.



What new industries are emerging as part of the net zero economy transformation?

Emerging industries include:

- Renewable energy generation and storage projects such as wind, solar, pumped hydro and batteries to provide more affordable, cleaner energy for local houses and industry
- Manufacturing of batteries and renewable energy technology such as solar panels
- Hydrogen as a zero emissions fuel
- Mining the critical minerals used in clean energy technologies
- “Green” metals produced with no, or low, carbon emissions

As the economy transforms, what is being done to help regions that rely on heavy industries like mining?

The Australian Government is working with state and local governments, industry and regional communities to seize the economic opportunities of the transformation, ensuring local workers and businesses share in the benefits. Initiatives include support for new and decarbonising industries, new jobs, training and skills development. A key pillar of this work is the Energy Industry Jobs Plan, which will support employees of closing power stations and their dependent employers (e.g. coal mines) to transition to new employment.

What is the Net Zero Economy Authority, and what does it do?

The Net Zero Economy Authority is responsible for ensuring the communities that have always powered Australia can share in the opportunities of the net zero economy transformation. It supports new industries to create regional opportunities including jobs and investment, and existing workers and businesses to prepare for the jobs for the future. Throughout the process, the Authority will work in partnership with First Nations people, communities, governments, regional bodies, unions, industry, investors and other groups, listening to their concerns and helping them to participate in new economic opportunities.



What role does agriculture have to play?

Ensuring a profitable and sustainable future for our producers and land managers is a priority for the Australian Government. The Australian Government is supporting the sector to take up the opportunities and share in the benefits of the economic transformation, and many agriculture industry groups have already committed to playing their part. In developing our Agriculture and Land Sector Plan for net zero, the Australian Government is working with farmers to support a long-term vision for the pathway to 2050 for agriculture and land.

What does net zero mean for the Hunter?

As a proud industrial powerhouse, the Hunter is home to a large workforce experienced in heavy industry, mining, steel, aluminium and advanced manufacturing, plus important infrastructure and world-class export facilities including the Port of Newcastle. Now as Australia moves towards net zero, the region is well placed to attract investment, secure projects and build a secure and thriving economy for the future.

What kind of changes are underway in the Hunter?

The region is undergoing an economic transformation, with the creation of new clean industries, jobs and opportunities. They include:

- The Port of Newcastle Clean Energy Precinct. With \$100m funding from the Government, the precinct will provide a dedicated facility for all forms of clean energy, future fuels and associated technologies. The port will in turn generate more than 5800 jobs.³
- The Hunter Water Renewable Energy Project, with the installation of renewable energy infrastructure at treatment plants and pump stations across the Hunter Water network.⁴
- The proposed AGL Hunter Energy Hub, which will transform the Liddell Power Station and Bayswater Power Station sites into a low-carbon energy hub and include a pioneering manufacturing facility for solar panels.

³ Port of Newcastle, '[Port of Newcastle Clean Energy Precinct](#)', Port of Newcastle website, 2024, accessed 11 September 2024.

⁴ Hunter Water, '[Renewable Energy Project](#)', Hunter Water website, n.d., accessed 11 September 2024.



Will there be new jobs?

Yes. As the Hunter's economy changes, it is creating new jobs in renewable energy, manufacturing and construction. It's estimated this could provide up to 10,000 new jobs by 2030.⁵

What will happen to the old factories and mines?

Much of the existing infrastructure will be retained and decarbonised by switching to renewable energy. Historic mines are being rehabilitated – for example, the Rhondda Colliery is being transformed into a motor park and tourism facility. Australia's first dedicated resort park for motoring fans, it will create more than 450 jobs, with 229 permanent roles.

What support is available to workers in the Hunter?

The Australian Government is working with the Hunter community to provide training, reskilling support and employment opportunities. Regional Workforce Transition Officers are working closely with local stakeholders to:

- Deliver a local jobs plan
- Help businesses with their workforce needs
- Support local TAFEs and universities to develop training solutions.

Regions like the Hunter will also be supported by the Net Zero Jobs Plan, which will set out the Australian Government's vision for achieving a smooth workforce transition as Australia moves to a net zero economy. This will help workers, their families and communities navigate the changes in their local area and take up new work and opportunities. Under the Net Zero Jobs Plan there are additional initiatives that may be available to workers at eligible closing gas-fired and coal-fired power stations to support direct transition to new employment.

⁵ KPMG, 'Economic Briefing – August | Economic Transition Forces in the Hunter,' City of Newcastle, 2023, accessed 11 September 2024.



Will there be new training opportunities?

Yes. Among the initiatives are a New Energy Apprenticeships Program providing payments of up to \$10,000 to help apprentices skill up in clean energy sectors, and a New Energy Apprentices Mentoring Program that connects apprentices with a relevant industry mentor.

Where can I get more information?

To find out how the Hunter is powering the energy transformation, visit futuremadeinaustralia.gov.au

