



Australian Government
Net Zero Economy Agency

Frequently Asked Questions

Net Zero Transformation Campaign



Central Queensland

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, it means the transformation of our economy to one that is driven by decarbonised industry and renewables. This 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 nothing.¹

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 that 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 communities, governments, regional bodies, unions, industry, investors, First Nations 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 the 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 Central Queensland?

Central Queensland has always been a place where things are made and exported to the world – a proud economic powerhouse that’s home to essential infrastructure and skilled workers. Now as Australia transforms to a net zero economy, the region has a competitive advantage to attract investment, secure projects and create valuable export commodities such as hydrogen and critical minerals.

What kind of changes are underway in Central Queensland?

The region’s economy is diversifying to include the green industries of the future, such as producing hydrogen (a zero emissions fuel) and renewable energy generation and storage. Central Queensland initiatives that are creating new jobs and opportunities include:

- The Central Queensland Hydrogen Project, expected to deliver \$17.2 billion in hydrogen exports and create more than 8000 jobs.
- Fortescue’s Green Energy Manufacturing Centre in Gladstone, a world-leading facility producing the electrolyzers needed for the production of green hydrogen.³
- Local business Alpha HPA, which is building Australia’s first processing facility for high-purity alumina, a critical mineral used in LED lighting, lithium-ion batteries and other high-tech applications.

³Fortescue, ‘Fortescue officially opens Gladstone Electrolyser Facility’, Fortescue website, 2024, accessed 11 September 2024.



How are the region's industries decarbonising?

An example is the Rio Tinto Boyne aluminium smelter, which is switching to wind energy as part of Australia's biggest renewable energy deal. This in turn funds the development of the Bungaban Wind Farm in the Western Downs and Banana Shire. Rio Tinto is also piloting hydrogen use at its Yarwun alumina refinery in Gladstone.

Will there be new jobs?

Yes. About 70% of the 100,000 renewable energy jobs forecast by 2040 are expected to be in regional Queensland, many of them in Central Queensland. In Gladstone alone, this will include more than 8,000 jobs at the Central Queensland Hydrogen Project; 490 jobs in the construction of Alpha HPA's high-purity alumina processing facility and 200 on completion; and more than 300 direct or indirect jobs at Fortescue's Green Energy Manufacturing Centre.⁴

What support is available to workers in Central Queensland?

The Australian Government is working with the Central QLD 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 Central QLD 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 to 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.

⁴ Fortescue, 'Fortescue officially opens Gladstone Electrolyser Facility', Fortescue website, 2024, 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. The New Energy Training Pathways Initiative has educational resources about industries including electric vehicles, renewables and hydrogen.

Where can I get more information?

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

