OUR PLAN FOR

ZERO-EMISSIONS NUCLEAR

as part of a cheaper, cleaner and consistent energy future.

Nuclear Power in Australia

Australia is already a nuclear nation.

We have had a nuclear reactor operating in Sydney since 1958, which creates vital medicine that saves lives.

Australia has a highly competent, globally recognised nuclear safety regulator.

Australia is adopting nuclear propelled submarines, as part of the landmark AUKUS agreement with the United States and the United Kingdom.

Australia will become the seventh country with nuclear powered submarines. The other six countries have well-developed nuclear industries.

If Australia can:

- have a nuclear reactor for life saving medicine;
- procure nuclear propelled submarines for our defence; and
- export uranium for zero-emissions nuclear energy.

Then Australians should be given the right to use zero-emissions nuclear energy to reduce power prices.

Labor's Expensive and Failing Approach

Right now, Labor's expensive renewables-only approach is failing. And you are paying the price. Power bills have increased by up to $1000 for many Australians, when Anthony Albanese promised a $275 cut. Power bills continue to rise with no end in sight.

Labor's 82% renewables target by 2030 is way behind schedule. Labor's climate target of 43% emissions reduction by 2030 has become unachievable.

It's common sense that a plan is needed to reduce power prices and secure cheaper, cleaner and consistent energy for Australians.

A Long Term Energy Plan

To ensure the prosperity, security and clean energy needs for future generations we must commence work on a civil nuclear programme in Australia now.

A future civil nuclear programme will provide cheaper, cleaner and consistent energy to return Australia to an industrial and manufacturing powerhouse. It will mean jobs for the regions and the ability to reach net zero by 2050.

Importantly, it will also mean lower power prices for families and businesses.

Getting started now on establishing a civil nuclear programme is the right decision for you, your children and your grandchildren.

A Balanced Energy Mix

Labor has put all its eggs in one basket with an expensive renewables-only approach to our electricity system, leaving Australians paying among the highest power bills in the world and risking the lights going out as we run out of energy.

The Coalition believes Australia must have a balanced energy mix to deliver cheaper, cleaner and consistent 24/7 electricity.

It's common sense to have a balanced energy mix and our plan is to introduce zero-emissions nuclear energy which has proven to get electricity prices and emissions down all over the world.

This means our energy mix today of renewables + gas + coal will shift to a future energy mix of renewables + gas + nuclear.

Zero-emissions nuclear energy will complement renewables and gas to get prices down and keep the lights on as we decarbonise.

How Will We Get Started?

On coming to government, the Coalition will lift the moratorium on nuclear technology and establish a civil nuclear programme in Australia.

Zero-emissions nuclear plants will be owned by the Federal Government and we will form partnerships with the most experienced nuclear companies in the world to develop and operate the plants.

Our zero-emissions nuclear energy programme will consist of two phases: starting with two establishment projects in the mid 2030s followed by a buildout of projects through to 2050.

A Federal Coalition Government will initially develop two establishment projects using either small modular reactors or modern larger plants such as the AP1000 or APR1400. They will start producing electricity by 2035 (with small modular reactors) or 2037 (if modern larger plants are found to be the best option).

Where Will They Be Built?

We have identified seven (7) locations.

These are the only locations in scope and the Coalition has ruled out all other locations.

Each mainland state will be granted an opportunity to benefit from cheaper energy by hosting a zero-emissions nuclear plant.

These locations are sites of former or current coal plants and they have the technical attributes needed for a zero-emissions nuclear plant, including transmission infrastructure, cooling water capacity and a skilled workforce.

- Liddell Power Station, New South Wales
- Mount Piper Power Station, New South Wales
- Loy Yang Power Stations, Victoria
- Tarong Power Station, Queensland
- Callide Power Station, Queensland
- Northern Power Station, South Australia (SMR only)
- Muja Power Station, Western Australia (SMR only)

A community engagement process will allow communities to have their questions answered by experts while a community partnership consisting of experienced local representatives will negotiate a benefits package to guarantee their region's economic future.

In parallel to the two and a half year community engagement process, a comprehensive site characterisation study will be undertaken including detailed technical assessments.

Community Benefits

All Australians will benefit from the Coalition's balanced energy mix of renewables + gas + nuclear to replace Labor's expensive and failing all-eggs-in-one-basket renewables only approach.

Shifting to nuclear will keep an always-on source of 24/7 baseload power in the system to drive prices down and keep the lights on while we decarbonise.

However, introducing zero-emissions nuclear energy will do more than solve the problems created by Labor.

Zero-emissions nuclear energy will re-energise the Australian economy, build our sovereign capability, and set the nation up for a new era of economic prosperity with cheaper, cleaner and

consistent 24/7 power.

At the front of this next wave of growth will be those communities which host modern zero-emissions nuclear plants.

Each of these communities will receive a benefits package which will be enshrined in legislation.

It will include:

1. **A multi-billion dollar facility guaranteeing high-paying jobs for generations to come**

   A zero-emissions nuclear plant will provide thousands of high paying jobs for coal power station workers, along with opportunities for local businesses to provide goods and services in the construction and operational phases, injecting millions of dollars into the local economy for up to 100 years.

2. **An integrated economic development zone attracting manufacturing, value-add and high-tech industry**

   New industrial zones will be established and anchored to zero-emissions nuclear plants, enabling host communities to offer Australia's cheapest, cleanest and most consistent 24/7 power, attracting:

   - High value manufacturing (e.g. defence and other speciality equipment, smelting);
   - Mineral processing (e.g. critical mineral processing and speciality metal refining);
   - High-tech sectors (e.g. datacentres).

   Zone tenants will pay lower wholesale electricity prices and avoid network costs because they will have direct power connection to the plant.

3. **A regional deal unlocking investment in modern infrastructure, services and community priorities**

   Regional deals will unlock investment in local priorities across three areas:

   - Infrastructure (e.g. new or upgraded projects in air, road, rail, port, telecommunications, housing);
   - Public services (e.g. new or improved hospitals, schools, water, sewage and transport); and
   - Community (e.g. new investment fund with earnings distributed to community groups).

   The regional deals will be negotiated between the local community and the Federal Government, with input from State and Local Governments.

Technology

Australia will **not** build a first-of-a-kind reactor.

We will only select internationally proven technologies that are Generation III and beyond.

Beyond these principles, technology selection will be performed by experts.

Institutional Architecture

Establishing a civil nuclear programme in Australia will require new or expanded institutions:

1. An expanded ARPANSA to license and regulate civilian nuclear power stations;
2. A Nuclear Energy Coordinating Authority; and
3. A government business enterprise to be called Affordable Energy Australia.

The ARPANSA legislation will be amended to allow the licensing and regulation of civilian nuclear facilities, including power stations. ARPANSA will have its resources increased to prepare to license the establishment projects and advice will be sought regarding the merits of regulatory consolidation of ARPANSA and ASNO.

The *Nuclear Energy Coordinating Authority* will lead community consultation and manage a process to select experienced nuclear companies to partner with Government to deliver these projects.

Affordable Energy Australia will be financed by the federal government through a combination of debt and equity and, through its partnership arrangements with experienced nuclear companies, will own, develop and operate the establishment projects.

Timeline

The timeline for establishing a civil nuclear programme in Australia including building two establishment projects is 10 to 12 years from the government making a decision until zero-emissions nuclear electricity first enters the grid.

Safety

Modern nuclear power plants with the latest technology are incredibly safe.

The technology is safe enough for our international partners such as the United States, Canada, the United Kingdom and France.

The technology is safe enough for Australian Defence Force personnel who will shortly be operating nuclear propelled submarines under the AUKUS agreement.

The technology is safe enough for residents of Lucas Heights in Sydney, who have lived and worked around an operating reactor since 1958.

Waste Management

Zero-emissions nuclear has proven to be one of the world's safest forms of energy, due in large part to its successful management of waste. The spent fuel produced by an individual's entire life's energy use could easily fit inside a can of soft drink.

As part of the AUKUS agreement, we will soon be managing spent fuel from the reactors used in submarines. The Government is currently looking for a permanent repository for this purpose. Similar to the United Kingdom, the Coalition will utilise the same permanent repository for managing spent fuel from our AUKUS nuclear propelled submarines to manage the spent fuel from zero-emissions nuclear plants.

Australia is no stranger to nuclear waste. We have been successfully managing nuclear waste produced at our research reactors since 1958.

Responsibly managing our nuclear waste is something Australia needs to do, whether we pursue zero-emissions nuclear energy or not.

Australia's scientists can manage this.
They already do.

Environmental benefits

If you are serious about meeting our net zero by 2050 emissions committments, then you must include zero emission nuclear as part of your energy mix. Zero emission nuclear power plants produce no air pollution or carbon emissions. For example, a 1.1 GW AP-1000 reactor cuts approximately seven million metric tonnes of CO2 emissions, equivalent to removing 1.5 million cars from the road.

Zero emission nuclear power plants also use much less land and raw materials than large scale renewable projects. For instance, a modern SMR power station, including all auxiliary buildings and the security perimeter would cover about 45 acres (roughly the size of a mid-sized shopping centre). A SMR structure takes up about five acres of land and would fit on the site of the MCG.

For every MWh of electricity produced:

- Wind requires 360 times more land than nuclear.
- Solar requires 75 times more land than nuclear.

In addition, unlike a modern nuclear plant, which under the Coalition's plan can be plugged into the existing grid, Labor's expensive renewables-only grid requires up to 28,000km of new transmission lines.

By reducing impacts on our landscape, zero-emissions nuclear will not only protect regional communities, but our environment and wildlife.

Longer operating life

Solar and wind renewable power plants need to be replaced approximately every 20 years whereas a modern zero emission nuclear power plant has an expected service life of up to 80-100 years.

Expensive renewable projects also create challenges with waste materials. In Australia:

- There is expected to be over 1 million tonnes of end-of-life solar panels by 2035.
- It costs six times as much to recycle solar panels as sending them to landfill.
- 15,000 tonnes of blade composite waste will have been created by 2034.

For more Information

australianeedsnuclear.org.au

Scan here to join our discussion

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