

To: House Select Committee on Nuclear Energy, Parliament of Australia

15 November 2024

## Inquiry into nuclear power generation in Australia

### About Environment Victoria

Environment Victoria is the leading not-for-profit environmental advocacy organisation in Victoria. With 40 grassroots member groups and over 200,000 individual supporters, we've been representing Victorian communities on environmental matters for over 50 years. Through advocacy, education and empowerment, Environment Victoria seeks significant and enduring solutions that will safeguard the environment and future wellbeing of all Victorians.

### Introductory comments

We appreciate the opportunity to make a submission to the Inquiry into nuclear power generation in Australia.

Environment Victoria's Clean Energy For All campaign emphasises the need to get to 100% renewables quickly and fairly. This energy transition is already well underway – with 40% of Victoria's energy coming from renewables in 2023 and this is expected to rise to 95% by 2035 with current policy settings.

As outlined below, we do not see a place for nuclear power in Victoria's or Australia's energy mix. Environment Victoria is the peak environmental organisation in Victoria, and we have had an active presence in the Latrobe Valley for many years. We have grown increasingly concerned about the nuclear push from the Coalition opposition without adequate consultation with the regional community in the Latrobe Valley.

Our concerns about nuclear power are summarised below under the following points - safety and security around nuclear power, no clear solution to the problem of nuclear waste, the significant drain on water required for nuclear power, and the nuclear industry's historically disproportionate impact on First Nations communities. Moreover, the local community in the Latrobe Valley have not been adequately consulted on this uncosted and potentially hugely consequential proposal.

After decades of inaction and climate denial from the Coalition, the same party pushing nuclear as the fastest way to reduce carbon emissions seems a smokescreen for an anti-renewables agenda.

*“In the Latrobe Valley, we are already on our way, moving towards a renewable future. Nuclear is an unwelcome distraction from getting on with these plans and stalls us from moving towards better outcomes for our environment, affordable power and good clean jobs in renewable energy.”*

*“We have environmental challenges here, as we move away from coal power and begin to rehabilitate the mines. It is increasingly clear that there is going to be a big demand on water to fill pit lakes, impacting our precious river systems which are already under strain because of industry and a drying climate. There simply isn’t enough water here for nuclear.”*

*“With both mine rehabilitation and the transition to renewables already underway, I just don’t see how nuclear, an unsafe technology, which is currently illegal in Australia would achieve the transition we need in the timeframe. It certainly won’t work for us here in Latrobe Valley.”*  
- Margie Barret – Local Organiser and Traralgon resident

## Radioactive waste

Despite reassurances that modern nuclear reactors are safer than previous models, the issue of nuclear waste has never been adequately resolved. The people of the Latrobe Valley are rightly asking where the radioactive waste from these new reactors will be stored for 100,000 years into the future. Will it be in open cut coal mines - and what would be the cost of attempting to build a storage site in Australia?

Compounding that problem is the question of how to transport that radioactive waste - and which cities and towns will it be transported through?

Consecutive Australian governments have attempted to foist nuclear waste facilities on unwilling communities (often Indigenous communities) over the past decades - but they have never been successful in doing so. What confidence can we now have that they will succeed on a far greater level if these nuclear facilities go ahead?

If we are unable to properly manage even the low-level nuclear waste from medical nuclear facilities such as Lucas Heights, why should we have confidence in our government’s ability to deal with low, mid and high-level waste that would result from establishing our own nuclear energy industry?

## Water

Even the pro-nuclear lobby admits nuclear needs at least 20% more water than coal. In the Latrobe Valley, the water from Loy Yang A needs to be used to fill the open cut coal mine for safety and stability for 30 years after the coal fired power stops, which is expected in 2035. So, the water is allocated to mine stability until at least 2065.

According to the World Nuclear Institute, one nuclear reactor requires between 1514 and 2725 litres of water per megawatt hour. That equates to billions of litres of water per year, all of which requires intensive filtering.

The question arises - where is all this water going to come from? The rehabilitation of Yallourn, Loy Yang and Hazelwood mine pits will already take millions of litres of water and there's no plan yet for where this water will come from. We already know that Victoria faces water shortages in the foreseeable future without the added intensive drain of a nuclear facility.

Local farmers in the Latrobe Valley should rightly be asking whether they will be expected to give up precious water for their crops in order for the nuclear industry to move into their town.

There are also precedents for the nuclear industry's massive water appetite causing problems overseas. In France, a nuclear power plant on the Rhone and Garonne rivers had to reduce its output in 2022 as the temperatures in those rivers became scarce and too warm to cool the plants. In Australia, a country of intermittent droughts and searing heatwaves - will nuclear power inevitably have to be turned off?

### First Nations communities

Dating right back to the 1950s and '60s when the British first tested nuclear weapons in remote parts of South Australia, First Nations communities have borne the brunt of the harm caused by nuclear activities in Australia.

First Nations communities continue to protest and take legal action against radioactive waste burial on country. There are communities still unable to access their land due to radioactive waste – and we know many Indigenous leaders in Gippsland today simply haven't been consulted about this new imposition on their land.

One local cultural educator we've spoken with, Kurnai Gunai woman Electra Greene, said: "Now we have this nuclear proposal but the foundations here aren't strong enough – the government doesn't do their homework. We've had earthquakes in Gippsland – and where do they put that waste that lasts for 100,000 years. I can't trust it will have a good outcome at all."

### Safety and security

The Latrobe Valley sits near the fault lines of the Strzelecki Ranges. The Fukushima nuclear disaster, which led to mass evacuations, hundreds of billions of dollars of economic loss and the release of large amounts of radioactive contamination to the air and ocean, clearly showed the danger of building a nuclear reactor on a fault line.

As recently as 2021 the Latrobe Valley experienced a 5.9 magnitude earthquake, and the area has been named one of Australia's earthquake hotspots.

The complexity of rehabilitating Latrobe Valley's three giant coal mines creates additional challenges and uncertainty, with stability of these sites and surrounding areas being a key outcome which mine owners must work to achieve over the next three decades or more. Described by one senior policy official as "a giant experiment", there are many unknowns when it comes to how mine rehabilitation will be managed. It is unclear where the exorbitantly large volumes of water will come from to avoid block sliding and floor heave within the mines and the mine operators plan to take more groundwater than ever before, leading to further geological instability.

A statement issued by The Mine Land Rehabilitation Authority stated, "From a mine rehabilitation perspective, the development of a nuclear energy site at AGL Loy Yang would be challenging. Firstly, the complexities of rehabilitating the current mine need to be navigated. The licensees are required by the *Mineral Resources (Sustainable Development) Act* to render their sites safe, stable and sustainable and it is anticipated that this will take decades to achieve. The timeframes required to modify the regulatory environment to allow for nuclear power, the lead times required to construct and commission such a facility and the extensive studies required to ensure the site is fit-for-purpose, meet community and Traditional Owner aspirations, and have adequate risk mitigation measures in place, within net zero achievement timeframes all weigh up to the Loy Yang location being difficult to currently house a nuclear facility."

This is clearly an inappropriate site for a nuclear power plant, and to propose one here is only adding stress to a community that has already borne the brunt of industrialisation with polluting and hazardous industries.

The last thing the people of the Latrobe Valley need is the threat of a nuclear accident. Although this may be unlikely, the area has already been subjected to other massive industrial accidents and health burdens such as asbestosis and the Hazelwood mine fire that continue to haunt the memories of people in the region.

Pursuing a nuclear industry in the same region opens many urgent unanswered questions like who would be expected to respond in such an emergency - and how many towns would be impacted? Who would train the firefighters to fight a nuclear meltdown?

So local people are well within their rights to ask - is pursuing a nuclear industry in the Latrobe Valley making us less safe and more vulnerable?

### [In summary](#)

As Victoria's leading environmental charity, after consulting widely with our supporter network in the Latrobe Valley and beyond, it's clear to us that Victoria is already well advanced in moving towards a clean, low carbon future in which nuclear has no role.

We've listened to the voices of Indigenous leaders in the area telling us they haven't been consulted and hold grave fears about the implications of embracing nuclear on their lands, as well as other local people concerned about the implications for the Valley's water supply and radioactive waste and transport.

We are concerned that the nuclear push from the Coalition opposition amounts to little more than a smokescreen to conceal their anti-renewables agenda. We suggest they get on the right side of history instead of putting forward dangerous diversions such as the current nuclear push.

We appreciate the opportunity to contribute to this important Inquiry.

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