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New South Wales Government

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Dear Sir or Madam

Hunter Power Project – Kurri Kurri Power Station

Veterinarians for Climate Action [1] are writing to **object** to the proposal by Snowy Hydro Limited to build a new power station at Kurri Kurri, NSW.

Veterinarians for Climate Action declares it is non-partisan and has made no political donations.

We are a national, not-for-profit, registered charity that aims to advocate for and achieve climate action within and beyond our profession. Our patron is Professor Peter Doherty, veterinary surgeon, Nobel Laureate and Australian of the Year in 1997. Twenty-three former Chief Veterinary Officers also publicly work alongside us.

Our reasons for objecting are:

1 Kurri Kurri Power Station will contribute to the climate crisis

The proposal to build a new power station at Kurri Kurri in NSW ‘flies in the face’ of climate science, the world pathway to reduce greenhouse gas emissions and recent human rights rulings.

The CSIRO State of the Climate 2020 report [2] states that Australia’s climate has warmed on average by 1.44°C since national records began in 1910. The Paris Agreement [3] is attempting to limit the world temperature increase to 1.5°C above pre-industrial levels. Australia is already about there! And is already experiencing the severe weather events associated with climate change.

Scientists agree that global warming is caused mainly by human activity and that emissions from fossil fuels, including natural gas, are the dominant cause of global warming [4].

The proposed Kurri Kurri power station will operate using natural gas with diesel as a back-up. Natural gas is a fossil fuel largely made up of methane, the second-most important greenhouse gas after carbon dioxide and a key driver of climate change. Greenhouse gases are released into the atmosphere at all stages of the natural gas industry, during the production of gas, as fugitive emissions from pipe-lines and power plants and during the energy intensive process of liquefying gas for export [5].

It is significant to read that Dr Dylan McConnell from the University of Melbourne Climate & Energy College, with extensive experience in analysing the electricity sector in Australia, considers the additional power plant proposed by the Commonwealth Government, is not even necessary to maintain the supply of power [6].

World leaders have committed to reduce gas emissions. In March 2021, the United Nations Secretary-General, António Guterres, urged all countries, companies and financial institutions to commit to net zero or carbon neutrality, with ‘clear and credible’ plans to achieve the target, starting immediately [7].

Fatih Birol, executive director of the International Energy Association and one of the world’s foremost energy economists, has said: “If governments are serious about the climate crisis, there can be no new investments in oil, gas and coal, from now – from this year” [8].

In the last few weeks, courts have made landmark decisions that may equally apply to the proposed Kurri Kurri power station. The Federal Court in Australia has ruled that carbon emissions released from mining and burning fossil fuels will contribute to wide-ranging harms to young Australians [9], setting an important legal precedent. A Dutch court has ruled that global oil and gas giant Shell must reduce both its own direct greenhouse gas emissions, as well as those caused by the products that it sells. Significantly it rejected the company’s arguments that the responsibility lies with consumers rather than fossil fuel companies [10].

2 Australia is rich in wind, solar and hydro energy

State and Territory governments are leading the transition to renewable energy. Tasmania has become one hundred per cent self-sufficient in electricity generated from renewable sources, largely wind and hydro. South Australia and the ACT are close behind that achievement [11].

The Australian continent has the highest solar radiation per square metre of any continent and consequently some of the best solar energy resource in the world [12]. Householders and business owners have been investing in solar energy for decades, fixing solar panels to their roofs to contribute renewable energy to the grid. In the last couple of years there has been a surge in roof and ground mounted photo voltaics and Australia now leads the world in solar per capita, at 600W/person with Germany a close second at 580W/person [13].

Wind power is currently the cheapest form of large-scale renewable energy. For the first time, wind overtook hydro as Australia's leading source of clean energy in 2019 supplying 35.4 per cent of the country's clean energy and 9.5 per cent of Australia's overall electricity [14].

There are over 100 operating hydroelectric power stations in Australia [15]. And now the power of the sea is being explored as an energy source with CSIRO reporting that wave energy could contribute up to 11 per cent of Australia's energy (enough to power a city the size of Melbourne) by 2050, making it a strong contender in Australia's renewable energy mix [16]. Wave power doesn't require the sun to shine or the wind to blow.

One of the biggest criticisms of renewable energy has been that the output of wind and solar farms is variable depending on the weather and time of day. Energy storage technology and digital intelligence to improve grid stability is rapidly evolving. The Hornsdale Power Reserve in South Australia is the largest lithium-ion battery in the world, and is providing essential grid-support services [17]. Pumped hydro energy storage can utilise surplus energy to pump water from a lower dam to a higher one, essentially converting the upper reservoir into a giant battery.

Another argument raised against renewable energy has been that it is more expensive. However, a report last year from the International Energy Agency stated that renewable energy costs have dropped and are increasingly below the costs of conventional fossil fuel generation [18].

There is genuine concern that, in moving from traditional fossil fuels to renewable energy, people employed in the coal and gas industries will lose their jobs. That will happen and will require planning and support for those people concerned. However, the International Energy Agency has declared that 'government actions to rapidly boost clean energy and reduce fossil fuel use can create millions of jobs, lift economic growth and keep net zero in reach' [19]. In Australia new jobs will result from the green economy in all areas of employment, from building and maintaining wind or solar farms to sustainable construction designers, energy efficiency consultants and other specialised professionals [20].

There are significant rewards for Australia in transitioning to renewable energy. Once the Federal Government matches the leadership shown by State and Territory governments, climate technology and industry will really take off. Innovative technology will be exportable to other countries, increasing the gross domestic profit. Carbon taxes currently threatened by other greener countries to which Australia sends exports, will no longer be a threat. Australia will be seen by the world as contributing to climate action instead of dragging its feet.

3 People, animals and the environment deserve better

This planet is warming at an alarming rate. An increasing average temperature and more extremely hot days will result in more health problems and deaths among people [21] and animals [22].

Livestock production will be affected by increased temperatures in some parts of the country resulting in reduced livestock growth, reproduction and milk production [23].

Extreme weather events are predicted to become more severe and more frequent as the temperature rises [24]. Individual veterinarians have had first-hand experience of animals, livestock and wildlife, killed or displaced in severe weather events. Some examples are:

- In February 2019 an estimated 625,000 cattle were wiped out by widespread flooding in northern Queensland [25]. The rain event lasted about 10 days and as well as the severe loss of animal life had an impact on people and property in the area. The IPCC have reported that increased flood events can be expected as a consequence of climate change [24].
- An extreme heatwave in far north Queensland during 2018, when temperatures were over 42°C, killed more than 23,000 spectacled flying foxes, equating to almost one third of the species in Australia [26].
- The Great Barrier Reef has experienced several mass bleaching events caused by rising ocean temperatures driven by global warming. This brings long term risks not only to the reef itself but to the diversity of marine fauna living within the reef, including dugong and marine turtles. The Australian Government’s assessment of biodiversity vulnerability recognises that climate change is the greatest long-term threat to the Barrier Reef [27].
- Nearly three billion animals – mammals, reptiles, birds, and frogs – were killed or displaced by the 2019-20 bushfires in Australia [28]. At least thirty-four people lost their lives. Climate change increased the risk of extreme weather that made the 2019-20 bushfires more likely by at least 30% and possibly more [29].
- In the three years from January 2017 to the end of 2019, rainfall for much of Australia was greatly reduced. During this severe drought, livestock losses were inevitable. An increased frequency and severity of droughts can be expected as a consequence of climate change [24].
- An Australian rodent in the Torres Strait Islands, the Bramble Cay melomys is the first mammal to become extinct due to climate change. Rising sea levels and storm surges are thought to have resulted in loss of habitat for this animal [30].

4 Conclusion - Australia must not build another power station

We have presented evidence to show that the proposed power station at Kurri Kurri will contribute to the global climate crisis.

For the sake of our grandchildren, all future generations and the animals we love, we ask the New South Wales Government to dismiss the application from Snowy Hydro Limited to build a new power station at Kurri Kurri.

The \$600 million earmarked for a new power station must be redirected to fund research, technological innovation and development that will give Australia a safe and dependable power supply generated from renewable energy.

Further information:

- 1 Veterinarians for Climate Action, <https://www.vfca.org.au/>
- 2 Commonwealth Scientific and Industrial Research Organisation, *State of the Climate* <https://www.csiro.au/en/research/environmental-impacts/climate-change/state-of-the-climate>
- 3 United Nations Framework Convention on Climate Change, *The Paris Agreement* <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

- 4 Client Earth, *Fossil fuels and climate change: the facts*
<https://www.clientearth.org/latest/latest-updates/stories/fossil-fuels-and-climate-change-the-facts/>
- 5 Climate Council, *Why is gas bad for climate change and energy prices?*
<https://www.climatecouncil.org.au/resources/why-is-gas-bad-for-climate-change-and-energy-prices/>
- 6 The Guardian, *'No coherent plan': experts reject Coalition's rationale for taxpayer-funded gas power plant* <https://www.theguardian.com/australia-news/2021/may/22/no-coherent-plan-experts-reject-coalitions-rationale-for-taxpayer-funded-gas-power-plant>
- 7 UN News, *UN chief urges 'clear and credible' plans to achieve net zero*
<https://news.un.org/en/story/2021/03/1088142>
- 8 The Guardian, *No new oil, gas or coal development if world is to reach net zero by 2050, says world energy body*
<https://www.theguardian.com/environment/2021/may/18/no-new-investment-in-fossil-fuels-demands-top-energy-economist>
- 9 ABC News, *Australian teenagers' climate change class action case opens 'big crack in the wall', expert says* <https://www.abc.net.au/news/2021-05-27/climate-class-action-teenagers-vickery-coal-mine-legal-precedent/100169398>
- 10 RenewEconomy, *Shell, Exxon and Chevron stunned by courts and shareholders in climate blitz* <https://reneweconomy.com.au/shell-exxon-and-chevron-stunned-by-courts-and-shareholders-in-climate-blitz/>
- 11 Climate Council, *States and Territories to thank for emissions drop*
<https://www.climatecouncil.org.au/resources/states-territories-thank-for-emissions-drop/>
- 12 Australian Government – Geoscience Australia, *Solar energy*
<https://www.ga.gov.au/scientific-topics/energy/resources/other-renewable-energy-resources/solar-energy#heading-2>
- 13 Australian Energy Market Operator, *Standards evolve to support a secure and reliable electricity grid as solar PV continues to grow*
<https://aemo.com.au/newsroom/news-updates/aemo-welcomes-revised-inverter-standard>
- 14 Clean Energy Council, *Wind*
<https://www.cleanenergycouncil.org.au/resources/technologies/wind>
- 15 Australian Government – Geoscience Australia, *Hydro energy*
<https://www.ga.gov.au/scientific-topics/energy/resources/other-renewable-energy-resources/hydro-energy>
- 16 Commonwealth Scientific and Industrial Research Organisation, *Wave Power in Australia* <https://www.csiro.au/en/research/natural-environment/oceans/Wave-energy>
- 17 Hornsdale Power Reserve, <https://hornsdalepowerreserve.com.au/>
- 18 International Energy Agency, *Projected Costs of Generating Electricity 2020*
<https://www.iea.org/reports/projected-costs-of-generating-electricity-2020>
- 19 International Energy Agency, *Pathway to critical and formidable goal of net-zero emissions by 2050 is narrow but brings huge benefits*
<https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits-according-to-iea-special-report>
- 20 Climate Council, *Renewable jobs: Future growth in Australia*
<https://www.climatecouncil.org.au/uploads/7b40d7bbefbdd94979ce4de2fad52414.pdf>

- 21 The Conversation, *How rising temperatures affect our health*
<https://theconversation.com/how-rising-temperatures-affect-our-health-123016>
- 22 RSPCA Research Report: *The impact of climate change on the welfare of animals in Australia* <https://kb.rspca.org.au/wp-content/uploads/2020/05/Climate-Change-and-Animal-Welfare-RSPCA-Australia-Research-Report-May-2020.pdf>
- 23 Government of Western Australia Department of Agriculture and Food, *Climate Change: Impacts and Adaptation for Agriculture in Western Australia*
<https://www.agric.wa.gov.au/sites/gateway/files/Climate%20change%20-%20impacts%20and%20adaptation%20for%20agriculture%20in%20WA%20-%20Bulletin%204870%20%28PDF%204.9MB%29.pdf>
- 24 The Intergovernmental Panel on Climate Change, <https://www.ipcc.ch/>
- 25 Cowan et al (2019) *Forecasting the extreme rainfall, low temperatures, and strong winds associated with the northern Queensland floods of February 2019*
<https://www.sciencedirect.com/science/article/pii/S2212094719300970>
- 26 The Lab of Animal Ecology, The Flying-Fox Heat Stress Forecaster
- 27 Australian Government, Department of Agriculture, Water and the Environment, Australia's biodiversity and climate change - A strategic assessment of the vulnerability of Australia's biodiversity to climate change
- 28 World Wildlife Fund, New WWF report: 3 billion animals impacted by Australia's bushfire crisis
- 29 van Oldenborgh et al, 2020, Attribution of the Australian bushfire risk to anthropogenic climate change (waiting publication by the journal NHESS)
- 30 University of Queensland, *Barrier Reef rodent is first mammal declared extinct due to climate change* <https://www.uq.edu.au/news/article/2016/06/barrier-reef-rodent-first-mammal-declared-extinct-due-climate-change>