INQUIRY INTO IMPACT OF RENEWABLE ENERGY ZONES (REZ) ON RURAL AND REGIONAL COMMUNITIES AND INDUSTRIES IN NEW SOUTH WALES

Organisation: Doctors for the Environment Australia

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Impact of Renewable Energy Zones (REZs) on rural and regional communities and industries in NSW

Submission to NSW parliamentary inquiry

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60 Leicester Street, Carlton Vic. 3053 0422 974 857 admin@dea.org.au www.dea.org.a

About Doctors for the Environment Australia

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-government organisation of medical doctors in all Australian states and territories.

DEA's work is based on the premise that humans need a future with clean air and water, healthy soils capable of producing nutritious food, a stable climate, and a complex, diverse and interconnected humanity whose needs are met in a sustainable way. We are therefore interested in environmental protection and restoration to promote human health and social stability.

Acknowledgement of Country

Doctors for the Environment Australia's members live and work around Australia. We acknowledge Aboriginal and Torres Strait Islander peoples as the Traditional Owners of these lands, in the spirit of reconciliation.

We recognise that First Nations peoples have cared for Country and lived sustainably for millennia, and that sovereignty of this land was never ceded. We pay our respects to First Nations Elders past and present, and to emerging leaders.

Summary

- There is overwhelming evidence that the greater the use of fossil fuels to generate electricity, the greater the adverse impact on human and planetary health. This impact is cumulative so that the longer the issue is not addressed adequately, the greater the threat to health.
- It isimperative that we rapidly increase our use of cleaner, alternative sources of energy. The sooner we do this, the sooner we will reverse the adverse impacts of fossil fuels.
- To do this at the scale required, large renewable energy projects such as wind and large-scale solar are important in producing the amount of clean energy required to transition from fossil fuels.
- Setting apart renewable energy zones provides an effective and efficient means to develop the infrastructure required for such large scale energy projects.
- Although there are concerns about these projects, particularly with the impact of wind farms, extensive research has failed to find any significant impact on human or animal health.
- Even if this research is disregarded and it is believed that wind and solar cause harm, deciding not to go
 ahead with increasing the availability of electricity from wind and solar is going to lead to greater harm
 through continued burning of polluting fossil fuels.
- Wind and solar also have major advantages over other potential options such as nuclear power generation which will needlessly delay the urgently needed transition from fossil fuels because of the time required for approval and construction. Among the many reasons that nuclear power is

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inappropriate for Australia at this time, it is considerably more expensive and has greater potential for harm to human health through exposure to long-term, low-dose radiation, radioactive waste and the risk of catastrophic nuclear accidents.

Recommendations

Doctors for the Environment:

- supports the development of large-scale energy generation in renewable energy zones because they
 will facilitate the transition from fossil fuels which is crucial for human and planetary health and there is
 a lack of credible, scientific evidence of harm to humans and animals
- does not support the development of energy sources such as nuclear power, which apart from expense and long lead times to develop, have the potential for a greater harm to human and animal health.

Introduction

DEA welcomes the opportunity to provide a submission on the NSW planning guidelines for wind energy in NSW at a time when human health and the environment are facing massive challenges due to unrestrained release of greenhouse gases from the burning of fossil fuels.

Climate change is a health issue

Climate change due to carbon emissions is damaging human health directly through more extreme weather events such as heatwaves and increased bushfires, and indirectly via many pathways, including changes in the spread of infectious disesases. The health impacts of climate change are summarised in the DEA resource How climate change affects your health: the facts.¹

Health impacts will become progressively more severe as global heating worsens. We must act urgently to make deep cuts to carbon emissions to prevent global heating from rising beyond our ability to adapt.

The need to move to clean energy sources

The largest contributor to NSW carbon emissions is the burning of coal. In fact, in the 12 months to August 2024, 72% of electricity in NSW was generated from black coal.² As well as significant greenhouse gas emissions, burning coal causes air pollution and other toxic waste, which also damage health. The health impacts of coal are outlined in the DEA fact sheet *How coal harms your health*.³

This makes it imperative that we transition from dependence on coal-fired power stations to clean and renewable sources of energy. The longer it takes, the greater the impact on our health and the more difficult to contain the long-term contribution of greenhouse gases to the heating of our planet and resultant climate disruption.

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¹ How Climate Change Affects Your Health: The Facts - Doctors for the Environment Australia 2021

² Australian Energy Market Operator Dashboard (accessed Sept 5 2024) <u>AEMO | NEM data dashboard</u>

³ How Coal Harms Your Health Fact Sheet - Doctors for the Environment Australia 2024

The advantages of wind and solar

The passage of the Climate Change (Net Zero Future) Act 2023 requires a statewide reduction in emissions of 70% by 2035 and wind and solar are the only mature low emissions technologies that can generate electricity at the scale required. However, as only wind can generate at night, and time-shifting solar energy for night use at the scale required is still prohibitively expensive, wind generation is the key development that will allow the closure of coal plants. The rapid approval of many gigawatts of wind generation should be a priority for the NSW Department of Planning and Environment. The draft guidelines do not reflect the urgency of the task. DEA is concerned that many wind farm approvals have become bogged down in the planning process which delays the climate and health benefits, as well as making the projects more expensive than they would otherwise be.

The potential impact of large scale wind and solar

Climate change, fuelled by increasing carbon emissions, is a significant threat to human health. Generation of clean, renewable energy is currently possible through wind and solar technologies. From a health perspective, there is no credible evidence to suggest that wind farms harm human health. The safety of wind farms has been supported by a 2015 review by the main agency for health and medical research in Australia, the National Health and Medical Research Council (NHMRC).⁴

Given the above, DEA supports a transition to clean, renewable energy such as wind. A focus on renewable energy offers a great opportunity to improve the health outcomes of communities within NSW.

Alternatives to traditional renewable energy sources

In an attempt to move away from fossil fuels, other sources of energy have been considered and proposed. One of the most topical of these currently is nuclear power. Proponents of nuclear power often float this option as a low cost, safe, 'renewable' option. However, evidence used to support nuclear power is often selective. The supposed advantages such as lower cost are often based on isolated examples and often without considering the full range of costs and government subsidies involved.

In addition, the potential harms, especially to health are often downplayed. This is despite well-known incidents which have resulted in major and long lasting impacts on human, animal and planetary health. Arguments that things have improved still fail to adequately address considerations like the risk to workers and nearby residents of long-term, low-dose radiation exposure and the disposal of radioactive waste, a well known health hazard that remains hazardous for thousands of years.⁵

As well as the potential direct health hazards of using nuclear energy, there are the indirect effects of moving toward nuclear power generation. Again, there is abundant evidence that building and maintaining nuclear power plants is not only more expensive than renewable energy generators such as wind and solar but consistently takes much longer than forecast to build. This means that NSW and Australia would remain dependent on fossil fuels for much longer than necessary, making it impossible to reduce carbon emissions fast enough to meet the targets necessary to avert catastrophic global heating. Any decision to shift resources from development of wind, solar and batteries toward nuclear power would be disastrous for the

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⁴ NHMRC Information paper: Evidence on wind farms and human health 2015

⁵ Nuclear Energy in Australia Position Statement - Doctors for the Environment Australia 2024

urgently required, rapid and substantial shift from fossil fuels as well as Australia's obligations under the Paris Agreement.

However much the hazards are downplayed by nuclear advocates, there is overwhelming evidence that the risks to human health and the environment are far greater with the use of nuclear fuels than wind and solar.

DEA does not support nuclear energy because it:

- is unnecessary, uneconomical, and not flexible enough for changing energy needs
- carries high health and safety risks
- is a significant security risk
- creates high-level radioactive waste, which cannot be safely disposed of and for which there is no known secure long-term storage
- requires large amounts of water
- cannot decarbonise the energy sector fast enough to avert catastrophic climate change
- is neither renewable nor a low emissions energy source, if the entire nuclear life cycle from mining fuel to decommissioning of the reactor is considered
- distracts from and delays more reliable, safer and less costly existing and developing technologies
- emerges from the history of nuclear weapons testing and uranium mining on First Nations lands without consent, and may continue to disproportionately affect First Nations people.⁶

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⁶ Nuclear Energy in Australia Position Statement - Doctors for the Environment Australia 2024