Submission No 32

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

Organisation: National Rational Energy Network Inc.

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NATIONAL RATIONAL ENERGY NETWORK

National rational Energy Network Incorporated

To protect and advance public welfare and the natural environment by opposing Commonwealth, State or Territory Law, or Corporate actions, that impose counterproductive energy policies and costs on all citizens.

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Submision to the
Inquiry into the impact of Renewable Energy Zones (REZ) on rural and regional communities and industries in New South Wales

30 January 2025

Attachments:

Annexe A - Price and Politics chart
Annexe B - Energy Storage Conundrum
Annexe C - Wind Turbines and Aerial Firefighting
Annexe D - Transition Costs
Annexe E - Property Values

1. Thankyou for holding this inquiry and allowing us to have our say on this important issue. However, it is disappointing that such an ill-conceived concept for generating bulk electricicity was ever devised and got this far through successive Parliaments. We are now left trying to halt bureaucratic and corporate momentum that has built up over years.

2. Pertaining to (i) in the Terms of Reference, the original sin regarding REZs is the passing of the Electricity Infrastructure Investment Bill 2020 (EII Act 2020) by NSW Parliament in only 17 days in November 2020. It must be noted that this was a Coalition Government led by Premier Berejiklian with Matt Kean cheerleading. Matt Kean is now

heading the Climate Change Authority and has lied to the Commonwealth Senate hearings regarding the ISP process. https://www.youtube.com/watch?v=NZIVkRhnQIo

3. The EII Bill passed with bi-partisan support, as did the NSW Climate Change (Net Zero Future) Act 2023 in November 2023 while we protested out the front of Parliament the same day. Together this confirms the disrespect in which Parliament holds their electors and those that pay for and underwrite all that Parliament decides. All sub-agencies with whom we have subsequently had to deal with take their lead from Parliament, and also treat us with absolute disrespect.

4. In November 2020 the people were sufferring under tyrannical and illogical covid diktats, with little media or public attention paid to energy matters. Parliament sitting time was reduced. None of the contentious covid issues could be debated in Parliament, but what little sitting time there was was used to ram-through the EII Bill 2020.

5. The establishment of REZs arbitrarily put many communities into limbo due to the uncertainties and doubts about their future. Many probably are still not aware that they are in a REZ or what it means to inhabit 'a modern day power station' as EnergyCo gushingly describes it. The uncertainty causes delays in business investment and lost production as minds and bodies are diverted from their primary tasks of running a business and growing food and fibre. Socially, families and communities also suffer due to this distraction and Government imposed division.

6. Those outside of a REZ may feel somewhat safe, and therefore do not join in the debate. This isolates those people directly affected by being in a REZ, and seems an effective way to 'divide and conquer' the people of the state. Being outside of a REZ does not protect these people either though, as there are many wind, solar, battery and powerline projects happening outside of the REZs - so why were REZs designated at all?

7. Landowners are at a disadvantage when 'negotiating' with multi-million dollar corporate entities, or when facing Compulsory Acquisition (CA) by Transgrid or EnergyCo. The electricity sector in NSW was privatised many years ago now, yet anachronistic socialist

Compulsory Acquisition has been retained, putting landowners at a further disadvantage. This CA power may be acceptable when essential transmission lines built and operated by the State Electcity Commission benefited all the citizens and industry, but are unacceptable when they are for facilitating profit to foreign-owned entities.

8. The CA compensation and process is also flawed, as examined in NSW Budget Estimates in early 2024, with Treasurer Mookhey stating that the Just Terms Compensation Act 1991 was unfit for purpose - yet no changes have been forthcoming. Relating to property devaluation of wind project neighbours, proponents and Government cite the 2016 Urbis report which has never been updated or revised since. This report was soundly debunked by Mr Nigel Wood (Annexe E - Property Values) and confirms anecdotal evidence of wind project neighbours. Of note is that Urbis is now one of the prominent consultancy companies preparing numerous proponent EIS reports.

9. Ever since the privatisation and establishment of the NEL, consumer prices of electricity have increased more rapidly than either CPI or GDP (Annexe A - Price and Politics chart). The increase also correlates with international agreements on climate change and mission reduction targets. The basis for establishing a 'market', or NEM in this case, is to allocate resources efficiently to thus reduce cost to the state and to the consumer. The rapid increase in power prices seems to defy the power of the market to produce power efficiently and cheaply in comparison to the previous State-owned system. Premier Minns acknowledged this fact at those same Budget Estimate hearings when he said, to paraphrase '....power stations....were built on top of the coal...so they were cheap...'.

10. Like elsewhere in the world that has pursued the renewable (sic) dream, power supply has become unreliable, insufficient, and expensive. The reasons are clear - every kw of 'renewable' generation has to be backed up with a reliable source for when the wind stops and the sun sets, which is about 70% of the time or 5 days a week. That is most of the time, and leads to the conclusion that all the wind and solar is just window dressing to look like you have done something, and a means to funnel money to vested interests.

11. The extra cost of duplicating the generating capacity adds to the final price. The gas

turbine generators or coal or nuclear or diesel must be built, maintained, and sitting ready to go at any time. And also the fuel supply to these must be guaranteed and paid for, negating the 'wind and sun is free' mantra.

12. In an attempt to negate the variable weather and the sun setting, building excessive amounts of wind and solar is being attempted. The Central West REZ, the lead REZ, is a case study in massive overbuild. The currently listed 54 projects for this REZ total ~14.3GW installed capacity, plus numerous BESS and a gas turbine, yet is approved for 'only' 6GW dispatchable. For perspective, the state of NSW is the biggest consumer of power in Australia demanding 8-11GW at any time. So the CWOREZ will have more installed capacity than NSW ever needs, and this is only one of the five REZs listed for NSW. If each of these other REZs are overbuilt to the same level, which it appears they will be, then this starkly shows the gross inefficiency of the scheme.

13. To belabor the point, the gas turbine mentioned above is approved for the city of Dubbo. Dubbo is located in the centre of the CWOREZ, to be surrounded by 14.3GW of generation capacity, yet still needs a gas turbine to guarantee reliable supply! You could not make this stuff up, and we are expected to swallow it without protest as some well considered and engineered optimal path to cheap and reliable energy. We are not fools, nor cowed into silence by strident fanatical criticism.

14. So massive duplication of generation is planned, multiplying the capital cost, to which the additional powerlines for a dispersed network must be added as well. And powerlines are ~40% of the consumer bill for power, so all large new transmission has a significant effect on your power bill. And all with a guaranteed rate of return to the 'investor' who is foreign-owned profit making corporate like Transgrid (70% Saudi) and ACEREZ (French and Spanish).

15. Not only the economic cost must be considered. What is the environmental cost of such a massive overbuild? Building at least 2-3 times the generation capacity needed to supply the state will consume 2-3 times the resources and cause 2-3 times the environmental impact wherever those resources come from. Then must be added the transport, refining

and manufacturing sunk cost in energy and materials, all adding to the total environmental impact on the planet. Ass.Prof Micheaux refers https://www.youtube.com/watch?v=YbnXMv19Hck&t=2s And what is the local environmental cost of contamination of our land and water by eroding turbine blades or damaged solar panels? This contaminated waste will be the asbestos of the future, and our children and grandchildren will have to deal with it. Here is an excerpt written by Prof. Ian Plimer some years ago - none of this is new or unknown, but simply ignored by Government and the renewable (sic) industry.

"Bisphenol A is a highly toxic synthetic organic compound used in the epoxy resins of turbine blades. Epoxy resins contain 30-40 per cent bisphenol A and turbine blades are the largest global consumer of epoxy resins. The annual global production of bisphenol A is about 2 billion kilograms and is increasing because the spearing of the environment with wind turbines is today's fad.

Bisphenol A is an endocrine disrupter that has been linked to about 80 diseases including cancers and reproductive disorders. It is lethal for young children. In 2012, the World Health Organisation warned about the potentially carcinogenic properties of endocrine disrupters and concluded that they pose a global threat to public health. The European Food Safety Authority has massively reduced by 1,000 times the dietary intake of bisphenol A to one hundred millionth of a gram per kilogram of body weight per day. All this is public record information which the wind industry must know.

The leading edges of turbine blades shed fine dust and blade edges only have a 5-year guarantee. Each blade sheds a minimum of 0.2 to 2.5 grams of bisphenol A in dust per year. This dust is spread wide and far by wind. If one gram of bisphenol A gets into dam waters, 10 million litres of water are rendered unusable. Over the life of a turbine, this equates to pollution of half a trillion litres of water per turbine. This is real pollution, not the alleged pollution of carbon dioxide, the gas of life. This dust from eroding blades has covered large areas of our planet and bisphenol A is leaching into soils and waterways. This is a toxic time-bomb."

Quote from:

https://www.spectator.com.au/2022/10/australian-notes-322

16. Pro-renewable pundits claim pumped hydro and batteries will be the solution for supplying dispatchable power at all times. Neither of these produce any power, and must be recharged at the same time as consumers are still demanding power from the grid. The financial and environmental costs of BESS and pumped-hydro are extremely high per GW of power produced. Any marginal environmental benefit, as is claimed for solar or wind using the flaky Levelise Cost of Energy (LCOE), is completely demolished if batteries or pumped hydro are added to the system at the scale envisaged to compensate for the low solar+wind

dispatch rate (Annexe B - Energy Storage Conundrum).

17. The total 'renewable' resource and energy use must be compared to the resource and energy use of building a conventional thermal power station at an existing site near where the coal is mined, operating the station at its most efficient design point 90% of the time for ~60 years and sending that power to the consumer through the existing or upgraded transmission network. And one can't forget that wind and solar will have to be replaced ~3 times over the lifespan of a thermal power station.

18. Even this calculation does not consider the footprint impact of the dispersed energy harvesting wind and solar plus powerlines. Environmental and aesthetic damage is done over a very large area, and farming production is negatively affected. The claimed farm area affected is a low percentage in NSW, yet 70% of farmland in Victoria if the offshore turbines in Bass Strait are not built - someone is lying!

19. There is no trust that the NSW Government has any intention to protect farming when the NSW Climate Change (Net Zero Future) Act 2023 preamble states it is to codify the 2015 Paris Agreement, yet the Paris Agreement states that the transition should not affect food production, yet this proviso does not appear in the NSW Act.

20. All the difficultities of building a 'renewable' system that still won't work very well, at great cost, are justified by the perceived need to do something to reduce Anthropogenic Global Climate Change (AGCC) and meet targets. Without even addressing whether this need is real or not, the chosen solution is counterproductive to the stated aim. A 'renewable' system, due to it's duplication and inefficient operation will use more resources, more energy and cause more harm to the global and local environment than the conventional solution engineered and built by our grandparents.

21. We shall now run through the rest of the Terms of Reference emphasising those we have particula rknowledge of, while leaving only brief comment, for those that others with specialise interest and knowledge will no doubt make detailed submission on.

22. (a) Agricultural and environmental problems are mentioned in the earlier opening statement above. Locally it will be negative with land taken out of production and subject to increased fire and contamination risk. The uncertainty introduced by successive Governments reduces confidence in making business decisions to invest and grow. The prospect of ever-higher power prices and irregular supply mitigates against investment. Cost pressure thus far has resultedin individuals and businesses spending on stand-alone generation to ensure supply, such as private solar, battery or diesel generators. This cost is additional to mains power expenses, so is an additional overhead, not an 'investment'. The projected increase and sustained mains power cost due to massive overbuild and extra transmission locks in a high overhead for the foreseeable future, so no horizon is seen for decreased energy prices. This is a severe disincentive to invest in the State and country as whole.

23. (b) We live in country prone to bushfires and any additional ignition source adds to the already high risk. Fires starting in solar, sub-station, powerline or wind projects may be rare but as the number and spread of these ignition sources multiply the likelihood of a fire starting is increased. The local RFS brigades are volunteer organisations and should not be expected to be on standby and available to respond to fires in or due to these complexes. The owners and operators of wind, solar and powerline network should establish adequate fire fighting teams in or near all projects, especially during high fire danger conditions. A fuller discussion of the problems of using aerial firefighting around wind turbines is at Annexe C.

24. (c) Please refer to Prof. Alan Moran's data on this topic at Annexe D

25. (d) Compensation offered IAW the Compulsory Acquisition Act 1991 is inadequate to compensate for loss of capital value due to powerlines, despite claiming to do so. It also does not recognise operational impacts on the farm business over the short and long term. These deficiencies are exacerbated by the compensation, or a large part of it, then being taxed as income not a capital gain/loss/dimunition of freehold. This despite all the calculations being based on loss of capital value of the land. The total quanta of the compensation being paid by the State to landowners is miniscule when compared to the largesse to proponents in the form of subsidies and Government facilitation and long-term expensive power to all

consumers.

26. (e) Voluntary Planning Agreements can never make up for the damage done physically to the local environment nor the division in the community.

27. (f) We are unable to manufacture or provide manpower domestically for these projects. No long term skilled manufacturing will develop as everything, including workforce, will be imported. A cargo cult mentality. The negative impact on our local roads and highways will cost us all further in road taxes for repair and maintenance and new build. The excessive numbers of heavy vehicles on the roads will increase travel time and risk on an already inadequate network.

28. (h) Here we insert from our submissio to the 2024 Senate Select Committee on Energy Planning and Regulation:

4.0 Solutions, options, suggestions

4.1 After 26 years since the NEM was launched, and 16 since AEMO, we can say with confidence based on the resulting experience, that the experiment has failed Australia and it's Citizens. The sell-off-the-furniture-and-rent-it-back model, the neo-liberal Chicago-school stakeholder capitalism has failed. It amounts to massive and perennial wealth-extraction, with regulatory oversight and consent. It is time for wholesale change. We must re-allocate the engineering and financial resources currently directed at the VRE sector towards reliable base load power in order to reverse from this energy and economic blind alley.

4.2 Opportunistic rent-seeking and extortion by profit-driven companies does not inherently provide an affordable and reliable power supply. There is no economic reason for them to produce more power or sell it cheaper. As many or most of the companies are essentially foreign-owned or controlled, there is no natural loyalty to doing the best for Australia. While the stated reason for 'privatisation' and a market-driven system was to create efficiency and lower costs, this has not eventuated. If a market is meant to allocate resources efficiently, one must ask to what end? Not the efficient and affordable supply of electricity to the consumer, clearly. It looks like it has allocated resources to the power companies.

4.3 Profit is not a crime, unless gained illegally, or, immorally. In the Publicly owned power system we had, there may have been inefficiency, there was much complaint about union power and expensive labour costs and work practices. While true, what we have shifted to is that inefficiency and cost has moved from being paid to local taxpaying residents to corporate offshore entities and the executive level. At least previously that 'wealth destruction' stayed at home and was spent locally, and we still had cheap and reliable power, which is the objective of it all.

4.4 Market settings or market support, a euphemism for Government finger on the scales, alter markets immensely. A simple experiment would be for the NEM rules to be changed to require generators to bid for 24 hours of supply, rather than the current 5 minute blocks. This would stop the absurd situation of erratic extremes in prices that craete trading opportunities but not reliable cheap power to consumers. Stability would assist all involved to plan long-term for the future.

4.5 Redundancy is also required for stability when unexpected outages occur. Regional self dependency would prevent cases where an interconnector transmission line is damaged and a whole state goes black. As a minimum, each state should be self-reliant, then any excess or deficit that occurs can be moved elsewhere if required.

4.6 This would also facilitate competition between the states, as being reliant on others constantly would naturally lead to higher costs. The current big but shrinking bowl of porridge market, in contrast, favours trading, or arbitrage ahead of production. It is a cargo-cult mentality where you bid and then bid higher, and the power miraculously will turn up. Until it doesn't. The emphasis is not on production of reliable energy, but production of profit with no physical expense or work.

4.7 Due to these failings, we find ourselves writing for an Inquiry, and Government spends it's time involved in the energy debate and energy industry. Was not one reason Governments sold-off these assets was to remove itself from the process? Government is giving subsidies, finance guarantees, permissive fast-tracked planning approvals, using Compulsory Acquisition to enable private transmission lines to be built over Freehold productive farmland. Are any clearer failures of market needed to spur complete re-examination and soul searching?

4.8 Australia will never become a superpower of anything, green or otherwise, without reliable affordable energy to industry and consumers. We will be lucky to maintain a first-world standard of living, and certainly won't have any manufacturing industry. Unstable ever-rising prices and uncertainty does not allow long term plans and investment. It favours hoarding and the export of human and economic capital.

4.9 To salvage the situation at this late stage, we propose the following actions for consideration:

4.9.1 Keep the operating coal stations maintained and running while new coal and nuclear power stations are built.

4.9.2 Existing VRE generators must be utilised and the whole network backed up with gas turbine generators.

4.9.3 No further expenditure or construction of transmission, battery, solar, wind or pumped hydro projects.

4.9.4 All finance and engineering resources should be re-focused on new-build base load generators.

4.9.5 A portion of the gas previously exported should be reserved for domestic use at export prices. Similarly more coal will need to be kept at home (this does not condone extending fracked gas operations that affect artesian water required for stock, domestic use and food production).

4.9.6 All the existing power stations and recently retired sites should remain zoned industrial for power production, whether by gas, coal or nuclear.

4.9.7 All subsidies, whether for coal, gas, VRE generation or electric conversion (EVs, households) must be identified and listed in a simple publicly available way. Attachment D. Moran starts this process.

4.9.8 Equity of power supply to all. - Reliability standard for Cobar should be the same as for Sydney CBD, no weightings to favour The City.

4.9,9 Disallow any Power Purchase Agreements between organisations and retailers/generators - no entity gets first dibs or priority on any supply of power (eg. an AI data centre does not get assured supply ahead of citizen consumers, or the ACT or city CBD does not get priority over others). Supply of the whole grid sufficiently all the time at a stable price to consumers is the intent.

4.9.10 If for strategic National Security reasons any body gets special treatment or power supply preference, then this is an acknowledgement that strategic security is a factor, and all decisions must take this in to account.

4.9.11 Following on, for National Security, it is logical that domestic power component manufacturing must be established and maintained in Australia. This would include gas turbines, steam turbines, electric generators, and transformers and all the ancillary components, design, engineering and manufacturing to be self-sufficient. This requires stable investment and commitment to technical skills-building in heavy industry and manufacturing.

4.9.12 AEMO and related entities should be eliminated based on poor past performance. The in-house engineering staff should be retained and led by a suitably qualified and experienced Chief Engineer reporting to the Federal Energy Minister until the power supply has been expanded to a stable reliable level.

4.9.13 The ex-AEMO engineering unit's first task is a citizen consumer focused energy plan that honestly considers all the NEL Objectives equally making best use of existing transmission and generation assets. A working forum should be established to develop this plan with outside independent engineering expertise invited to participate.

4.9.14 After growth and stability of supply is achieved, devolve engineering to State-based teams answering to local Minister/Department, but liaise nationally to optimise design.

4.9.15 NEM: 24hr vs. 5min bid blocks, REEAct repealed, nuclear prohibitions removed.

4.9.16 Honest, open debate will lead to abandoning non-sensical net zero ideology

29. (i) Covered in opening statement.

30. (j) As we understand it no decommissioning bonds are legislated as yet, we have been told by proponents that rehabilitation is part of the Landholder Agreements but are Commercial-in-Confidence. Without compulsion to make these public and without enforcement there is little compulsion for proponents to honour these agreements. Few

landowners would have the financial capacity to legally compel a foreign entity to honour the contracts. Premier Minns stated in 2024 Budget Estimates that '...cost for ehabilitation was built-in to the landholder payments...'. We do not think many landowners are aware of this. If it is correct, certainly not when they were first approached and signed up. Federally there has been a Bill tabled: *Requiring Energy Infrastructure Providers to Obtain Rehabilitation Bonds Act 2024*. This Bill has had its second reading late 2024, and there is no excuse for not requiring bonds when the mining industry has them.

First Reading

Bill and explanatory memorandum presented by **Mr Birrell**.

Bill read a first time.

Second Reading

Mr BIRRELL (Nicholls—Deputy Nationals Whip) (10:18): I move:

That this bill be now read a second time.

The proposed bill aims to require energy operators to obtain rehabilitation bonds for wind and solar projects, similar to existing requirements in the mining sector.

Regional communities are bearing the brunt of the renewable energy rollout, and certainty is needed for the end-of-life rehabilitation of onshore wind and solar farms.

While there are differences in the specific rehabilitation processes for wind and solar projects, the proposed legislation aims to ensure responsible decommissioning and site restoration for both types of renewable energy

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31. (k) The Commission should be responsible for sorting out the mess highlighted in this document, and not just be tasked with blind charging towards unrealistic ideoloical targets. They must recognise the physical, engineering and financial reality. If they are unable to they should be abolished, along with the artificial targets

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