

From Tracie Davies
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Dear Sir/Madam,

Regarding your planning model for Australia's renewable energy transition, I would like to comment on some very relevant and overlooked factors.

As I look into in depth into the fast pace of the renewables transition I am dumbfounded by the many issues and impacts that are being ignored. I will try to be brief and to the point.

1. the tremendous HARM to the environment by the 'green' decarbonisation movement (implemented to be in accord with the Paris Agreement) which proports to be saving the environment. Wind Turbines in particular have many negative and harmful impacts.
2. the immense and unsupportable COST(that continually increases) to change from a reliable, efficient, affordable energy system over to a very very expensive, unreliable, intermittant energy system that only seems to offer blackouts and horrendously increasing power bills.
3. selling out our power industry to foreign coporations - making our very electricity supply, foreign owned AND handing out various large subsidies to these foreign coporations so as to enable an inefficient, intermittent and expensive renewable power source to be able to compete in the electricity market. - All to the detriment of the power consumers who have to foot the bill. This also has huge effect on affordable manufacturing - and hence jobs, and hence Australias' GDP. If power is too expensive and unreliable then Australian industry and manufacturing is uncompetitve. This will of course lead to industry collapse or to industry moving offshore.
4. Why are we not learning from the mistakes from overseas? eg Germany transitioned at a rapid pace to renewables only to have massive power prices and huge social resistance in rural areas that have to live with wind turbines. Renewables can never be 100 % as you always need a reliable backup for when the wind isnt blowing or the sun isnt shining. see below excerpt from the article - Germanys Energy Castrophe - <https://quilllette.com/2022/07/14/germanys-energy-catastrophe/> *Solar and wind power have inherent flaws that prohibit them from ever forming the backbone of an industrialized nation's electrical grid. They require nearly 100 percent backup because they depend on the vagaries of the weather. Just look at how energy from solar and wind fluctuates. In 2019, wind power on one day rose to 59 percent of German power generation, but it fell to as low as 2.6 percent on another day of the year. In the same year, solar peaked at 25 percent and bottomed out at 0.3 percent. To control these swings and provide reliable power, renewables advocates argue that battery storage and hydrogen can store electricity and dispatch it when solar and wind aren't producing. Germany's largest battery storage program is its home storage systems, but years of battery storage installations have barely made an impact on the German grid. The country currently has an estimated 435,000 homes equipped with battery storage systems of various capabilities, and 145,000 home storage systems were installed in 2021. But there are 40 million households in Germany, and home battery storage systems usually last only a few hours, while the grid needs storage that can support variations lasting weeks. Plus, storage of any kind incurs round-trip energy losses while increasing total costs, since the grid was originally designed to function without needing it. Cost and inherent inefficiency are the key problems facing hydrogen. German news magazine Der Spiegel reported on this problem in 2019: From a business perspective, [hydrogen] isn't worth it. Much of the energy is lost in the process of turning wind into electricity, electricity into hydrogen, and then hydrogen into methane – efficiency is below 40 percent. It isn't enough for a*

sustainable business model.

Renewables actually lock in fossil fuels because they can't finish the job. This helps explain why Germany depends heavily on Russian natural gas.

Another essential issue with solar and wind power is that they lack energy density. A power source with low energy density takes more space and physical materials to generate electricity than a source with high energy density. Solar plants in Germany take up approximately 500 times more land than nuclear plants, and wind clocks in at 415 times more. These steep land costs eventually trigger intense local opposition. Most people don't want to live near electrical infrastructure, and renewables are more likely to be near people than energy-dense sources like nuclear. In Germany, only 12 percent of the 7,700 kilometers of transmission needed for the Energiewende had been built as of 2019, in part because of local opposition. The slow pace of transmission expansion and a stark slowdown in wind turbine construction led Der Spiegel to determine that "[t]he wind power boom is over."

5. As the above excerpt shows - Wind and big Solar take vast amounts of land and also HARM our precious land and water with toxicity, tonnes and tonnes of BPA toxic plastics (from turbine blades) and non recyclable solar panels and turbines adding to the massive rubbish problem, Wind turbines also harm animals AND people. It is very apparent that Government and Proponents are very resistant to looking at the multiple global experiences of people suffering from the effects caused by wind turbines. There are obviously real and detrimental effects causing illness and distress as they follow the implementation of wind farms globally and are being backed up by researches and doctors. The main cause appears to be INFRASOUND WAVES coming from the turning blades. These waves travel for long distances and are a type of deep penetrating vibration which has seriously harmful effects to varying degrees on biological life. In a Finnish research study they found that 15km was the necessary buffer for wind farms due to infrasound problem. See <https://www.windconcerns.com/when-the-turbines-went-big-so-did-the-sickness/> an excellent current article.
6. Property devaluation and terrible division in the rural communities subject to wind farm development.
7. Renewables particularly wind farms and the transmission towers degrade prime farmland and harm precious and important ecologically important areas - yet government doesn't listen.
8. Wind turbines KILL birds, bats, whales and dolphins - and with the huge and increasing numbers of wind farms this problem is increasing. Australia - specifically wind farms and their supporters- will be responsible for destroying entire species.
9. Renewables require a reliable constant backup - either fossil fuel or nuclear power - due to the intermittent power generation. Hence we are paying for 2! Also peaking power generation is much more expensive and higher in carbon emissions than constant baseload. So how does this really work to our benefit?

Thankyou for your time, I hope that these issues will be considered fully and acted upon.

Yours sincerely

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