

To: Department of Planning, Housing and Infrastructure

Online lodgement by major projects planning portal

<https://www.planningportal.nsw.gov.au/major-projects/projects/junction-rivers-wind-farm-formerly-burrawong-wind-farm>

From: saveoursurroundings@outlook.com

24/07/2024

Dear Ms/Sir

SOS objects to the proposed project for the following reasons:

1. Substantial emissions of carbon dioxide equivalents are embedded in all wind turbines, lithium batteries and supporting infrastructure, as well as all the mining, processing, sea and land transport, special equipment, ongoing maintenance, and decommissioning and disposal, which take years of intermittent electricity generation to offset. If manufactured in China, which is highly likely, the embedded CO₂e is the greatest. The project lacks transparency of this fact in their proposal. As they include estimated CO₂ savings numbers from the project they must also produce verifiable embedded CO₂e of the project.
2. All proponents claim, using the same now outdated methodology, that their proposed wind project in Australia will reduce annual CO₂ emissions by 'x' tonnes/annum. Such claims cannot be true. Electricity generated from fossil fuels has been decreasing for many years as more non-fossil fuel generation plants have become operational. Therefore, each new proposed project must have a lesser CO₂ saving than each operating project. A point will be reached when each new wind project actually increases CO₂e as its embedded CO₂e cannot be offset by its future electricity production. In addition, the stated annual CO₂ saving is for the first full year of operation and therefore is not sustainable over the project's life as coal-fired plants are shut down and the wind plants import spares, lubricating oil, replacement batteries and components from overseas, most likely from China, the world's largest emissions country and largest exporter of wind, solar and batteries in the world.
3. Wind turbine electricity generation is an old technology, having been first used in July 1887 to charge batteries for a home in Scotland. Current wind turbines still suffer the same basic issues as in 1887 i.e. weather dependent, weather vulnerable, unreliable, variable output generation, relatively inefficient, expensive to build and disposal costs are very high.
4. Historically, industrial electricity generating wind turbines operating in Australia only produce electricity 30.1% on average over a year. On occasions of too light or too strong winds or periods of no wind, especially during prolonged wind droughts, no or very little electricity is produced. The proposed project therefore cannot claim to put downward pressure on electricity wholesale prices when 70% of the time electricity has to be provided from an alternate always available source. This explains why all countries or jurisdictions globally that have over 30% wind and solar in their electricity mix have amongst the highest electricity retail prices in the world and suffer reliability issues.
5. It is well documented that slave labour is used to produce components used in wind turbines, solar panels and lithium batteries. For instance, children and adults in the Democratic Republic of Congo mine cobalt and copper using artisan methods, often resulting in their poor health and even death. China is the biggest buyer of cobalt and tracing artisanal mined cobalt from industrial mined cobalt is virtually impossible. This fact cannot be dismissed by statements saying the proponent will comply with Australian and State laws

on modern slavery reporting. Where is their moral stand against slavery?

6. It is a fact that wind turbines kill large numbers of insects, bats and birds, some protected and some endangered. The sheer number and size of proposed wind turbines occupying such a very large area of grasslands and woodlands will be destructive to such wildlife. The elimination of large numbers of insect eating bats and meat eating raptor birds will lead to plagues of insects and vermin, which will result in crop losses and land degradation. In addition, the project will kill flocks of seed eating birds such as Corellas, Galahs, and many other species of birds. The purchase of offsetting certificates does not address the large scale destruction of wildlife in the area in and around the proposed sites.
7. Statistically, some of the wind turbines will catch fire and possibly initiate catastrophic grass and bush fires resulting in property damage, and injury or death to animals and humans. Likewise Battery Energy Storage Systems catch fire and are extremely difficult to extinguish, as are turbine fires. Both give off dangerous toxic gases, posing threats to first responders and nearby communities. Australia has already had several fires in industrial wind turbines, BESS works and solar works. The proposal does not and most likely cannot adequately address these risks.
8. A recent court case proved that audible noise from wind turbines is injurious to human health. A recent study using 40 years of data concluded that wind turbines create significant intermittent infrasound, which is even more damaging to human health (the effects on other animals were not part of the study but are known to impact some species). However, the findings were for the periods when wind turbines were very much smaller in size than the massive up to 300 metres high wind turbines proposed for this project. No independent credible evaluation has been done by the proponent to prove that no human will be adversely impacted at any time by audible noise or infrasound.
9. Micro particles shed from deteriorating turbine blades made from fibreglass, plastics and carbon fibre will contaminate the soil and most likely some waterways. At present each 30 to 40 tonnes blade is cut up and buried (where?) as no adequate recycling of blades exists. Will the proponent put up an indexed multi- million dollar bond per turbine to cover the huge eventual cost of decommissioning, disposal, recycling. and land rehabilitation (is this even possible?) to prove its commitment to undertake such activities? If not, why not?
10. Despite the large size of Australia it only has 6% arable land. But this is being reduced by each wind, solar, BESS and pumped hydro project, which almost invariably are being built on agricultural land. This threatens the livelihood of people in agricultural towns, Australia's long-term ability to feed our growing population and that of other parts of the world. It poses a significant security risk to our country if we become dependent on others to feed us.

This project proposal to occupy/destroy large areas of arable land and therefore add to the problem of diminishing agricultural land that could otherwise feed the generations of Australians to come and other people globally. Every hectare of current agricultural land is therefore precious and must be protected. In addition, it contravenes Article 2.1 (b) of the Paris Agreement, to which Australia is a signatory.

11. Australia currently imports about 90% of its wind, solar and battery infrastructure and components from China. Dependency on China for replacement parts poses a sovereign security risk as our new electricity system will fail if such spares and replacements are withheld, restricted or made much more expensive because we will be a captive market.

Collapse of our power system will cause untold destruction of our economy and the resulting dislocation of our society. Will the proponent categorically accept, with penalties, a condition that it will not buy Chinese made wind turbines, batteries or other critical components, such as inverters?

12. The proposed wind turbines are up to 280m tall and over 200m wide. Apart from the Sydney Tower (Centre Point, 305m) and Crown Sydney (271m) no other building is taller than 250 metres. The proponent proposes to build an industrial wind turbine complex consisting of large numbers of wind turbines each 300m high. The enormous height and width of these turbines will dominate the rural landscape and be visible many kilometres from many of the surrounding towns and residences. The turbines will both impact visual amenity and landscape character that cannot be ignored. The construction of these wind turbines and associated infrastructure will negatively impact the residents, road users and road surfaces for years, especially as they will simultaneously use the same route over hundreds of kilometres as similar projects.
13. The Proponent's claim that this wind and BESS/STATcom works will *"... help provide clean, more cost-efficient and reliable energy generation to assist with meeting current load demand while also reducing greenhouse gas emissions and the impacts of climate change."* Such unsubstantiated and easily disproved claims are made by every rent-seeking wind, solar and BESS works proponent. These claims defy the NEM's and all Australian's real life experiences. For example, and this is just one of many this year alone:

On 4th June 2024 at the peak demand period for power from the NEM grid only 1% was generated by solar, wind, and batteries, which are well over 32% of the capacity of the National Energy Market (NEM). So much for the AEMO's claim, and the Proponent's, that *"a mix of solar and wind is needed, and they offer complimentary daily and seasonal profiles."* Wind and sunshine droughts occur simultaneously several times a year. Little to no wind and no solar generation means brownouts, energy rationing and ultimately large-scale blackouts causing social and economic upheaval.

Extracts from John Moore articles on change.org

Particularly at 7pm and 7am (Or a time that suits you?) watch (and record) the mix of coal, gas hydro, batteries, solar and wind generation and the prices per MWh for each State on the AEMO dashboard.

<https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/data-nem/data-dashboard-nem>

Example: Eastern States 4th June 2024 5.50pm EST. Batteries 0%, Biomass 0%, Black Coal 46% Brown Coal 14%, Gas 21%, Hydro 15% Diesel 1% Solar 0%, Wind 1%. A peak time and solar and wind only contributing 1%. Solar will has gone to sleep for the next 14 hours and wind can't get much lower than 1%.

South Australia 4th June 2024 5.50pm EST. Batteries 6%, Gas 76%, Diesel 16% Solar 0%, Wind 2%.

On the 4th June 2024 from 5.50pm EST to 9:05pm EST, South Australia, which has over 60% wind and solar capacity and big batteries, went from providing energy from batteries 6%, solar 0% and wind 2% to zero supply from its "renewables" capacity in under three hours!

A CHAIN IS ONLY AS STRONG AS ITS WEAKEST LINK. WITH SOLAR IT'S SIXTEEN HOURS OF DARKNESS EVERY NIGHT, PLUS INTERRMITENT CLOUD AND RAIN. WIND IT IS PROLONGED CALM (WIND DROUGHTS) OR GALES. BATTERIES GO FLAT QUICKLY.

WHEN THEY COINCIDE, YOU GET THE RESULT BELOW WHICH MEANS RENEWABLES WILL NEVER REPLACE COAL FIRED POWER STATIONS.

The facts speak for themselves. From the AEMO data dashboard. Eastern States 4th June 2024 4.50pm EST. Batteries 0%, Biomass 0%, Black Coal 46% Brown Coal 14%, Gas 21%, Hydro 15% Diesel 1% Solar 0%, Wind 1%.

THIS SITUATION OF 3% OR LESS FROM RENEWABLES HAS GONE FROM 4.50pm to 10.00pm (5 hrs) SO FAR AND CONTINUES

And South Australia 4th June 2024 5.50pm EST. Batteries 6%, Gas 76%, Diesel 16% Solar 0%, Wind 2%.

STOP PRESS: South Australia 4th June 2024 9.05pm EST. Batteries 0%, Gas 97%, Diesel 3% Solar 0%, Wind 0%.

SA RENEWABLES CAPITAL OF AUSTRALIA WITH BATTERIES, SOLAR AND WIND PRODUCING NO ELECTRICITY, ZERO, NOTHING

All this again underlines how important (beginning with Liddell which closed in April 2023, Eraring in 2025, Yallourn in (2032 now 2028), Bayswater in 2033, with Loyang A in 2045). **AND**

Reliance on wind and solar electricity generation with BESS backup can crash electricity production for the NEM grid. Between 4.59pm on the 4th June 2024 and 14 hours later 6.50am on the 5th June 2024, the combination of Batteries, Solar and Wind initially only produced a maximum of 6% of the input to the NEM Grid and as low as 1% of the input required by the NEM Grid over a 14 hour period.

THIS WOULD HAVE RESULTED IN A CRIPPLING NEM BLACKOUT, WITHOUT THE COAL FIRED AND GAS POWER STATIONS FILLING THE GAP. The consequences of no coal and little gas generated electricity, as is the current energy policies of governments, is the total breakdown of our society as all electricity, commerce, communications, travel, manufacturing, hospitals, etc. progressively shut down as their emergency backup generators run out of fuel.

In addition, the AEMO report issued today highlights how poorly wind and solar generation has been for just the June quarter 2024 for every State in the NEM, despite the massive increase in wind and solar electricity capacity (MW not MWh of output) since full year 2011-12 the average NEM wholesale price of electricity has gone from \$30/MWh to \$133/MWh (June quarter 2024), a 340% increase. Likewise, the end-cost to consumers has increased similarly over this time, but especially in recent years as more wind and solar works have been added to the NEM generation capacity.

How much more evidence does the DPHI, the IPCN and our governments need to reject the Proponent's and others' erroneous claims that the project will:

- replace the output of retiring coal-fired power stations (non-equivalence of capacities)
- put downward pressure on wholesale electricity prices (end-user cost is what matters)
- increase the reliability of the grid (exact opposite, no power at times, unreliable source)
- provide cheaper electricity (zero electricity cost nothing, prices have risen world-wide)
- provide energy security (intermittent weather dependent can never be secure, nor can sourcing most of the components from one unreliable source)
- be in the public interest (e.g. increased cost of energy, business failures, companies moving overseas, \$b increased government debt and interest costs from subsidies, net job losses; increased emissions, intergenerational inequality, social upheaval, reduced food production, environmental damage).

Conclusion

Clearly, the Proponent's green-washing claims the project will "*provide clean, more cost-efficient and reliable energy generation*" and will "*reduce greenhouse gas emissions and the impacts of climate change.*" and will lower of electricity prices are not supported by the facts. Lowering CO2e emissions and electricity prices has not been achieved by any country or jurisdiction in the world. The South Australian and NEM June 2024 example above proves that Australia is no different. This proposed project should not be recommended for approval on these two demonstrated facts alone.

In addition, there are the issues of potentially facilitating the use of slave labour, the mass slaughter of wildlife and habitat destruction, the significantly increased fire risks, the unavoidable noise created, the contamination of the environment, the reduction in available agricultural land, the sovereign security risk of relying on virtually a single source of supply, ignoring wind and sunshine impacts on generation, and the cumulative impacts of existing and future wind, solar, BESS and pumped hydro projects.

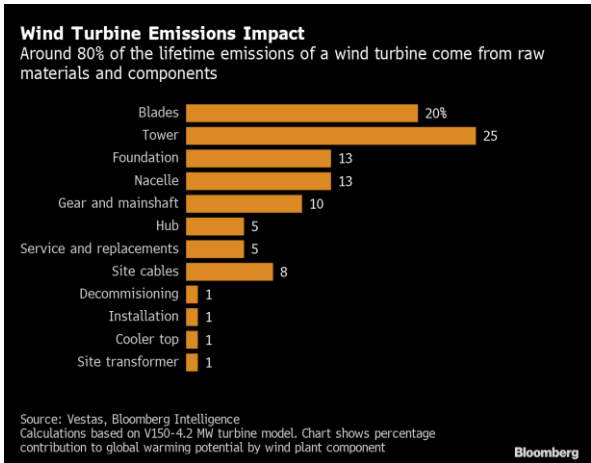
Taking just the foregoing into account the proposed project is "not fit for purpose" and must not be approved. To do so would ignore the real-life facts that such projects do not and cannot deliver on their claims. Other countries now recognise these shortcomings and are now turning to better alternatives such as safe, long-life, 24/7 output electricity generation options, such as HELE and CGCT plants and nuclear reactors, including small modular reactors. Australia must not be left behind. Reject this proposal.

Our detailed objections to the BESS component of the project are contained in a separate submissions paper.

Yours Faithfully
Save Our Surroundings (SOS)

Examples of some issues with Wind Turbine Works

The following highlights some of the actual issues with wind works that are either ignored or glossed over by Proponents.



Wind turbines emissions impact



Lithium mining could swallow many regional towns



Child slave labour used in DRC



Insect encrusted turbine blade attracts bats & birds



Bird and bats at risk when in flight



Burning turbines create toxic smoke



55,000ha Leadville fire 2/17#



Traffic disruption (e.g. blade movement)



Accidents may occur



Turbines can fail catastrophically



Is this the fate of all discarded turbine blades?

The February 2017 Leadville-Dunedoo fire destroyed 35 homes, killed 6000 livestock & burnt 500km² of bush and grassland in one day. Grass fires are frequent occurrences in the regions, especially during periods of drought. While this fire was not started by a non-fossil fuel electricity plant, such plants may start grass/bush fires or be vulnerable to such fires in the future.