

Rye Park Wind Farm PAC Submission

Protecting NSW and the NSW Government

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The Department's recommendations to the PAC put the NSW Government, its taxpayers and its citizens at risk in a number of ways that is economic vandalism. In particular, the risks include:

1. Contributing to increased electricity insecurity; and
2. Virtually guaranteeing the NSW Government will eventually have to pay for decommissioning the Rye Park wind farm.

The PAC should refuse to make a decision on this proposal until it has received a thorough, professional review by the NSW Government of the impact of wind farm approvals on future grid security and identifying the conditions that need to be imposed on wind farm approvals to ensure grid security is protected.

The decommissioning issue can be dealt with by imposing appropriate consent conditions as described in this paper.

Failure by the PAC to take these steps will constitute misfeasance by the PAC members and a wilful decision to create harm to NSW and the NSW Government to benefit a developer.

In addition, the PAC should ensure all parties understand that one of the consent conditions enjoins the wind farm from causing "Actual or potential harm to the health or safety of human beings", so there is no misunderstanding on that point.

There are many serious grounds for objecting to the Department's assessment and recommendations, including its acceptance of the pervasive impact on the hundreds of people who will be affected. This submission focuses on two of them:

1. Failure to determine the impact of the proposal on electricity grid security for NSW and to guarantee grid security; and
2. Failure to recommend action necessary to ensure decommissioning will actually occur, leaving a very high likelihood it will not unless paid for by taxpayers.

In the last six months the whole country has been alerted to the devastating threat to electricity security caused by excessive proportions of intermittent power generators (particularly wind and solar) in the grid. As a consequence, there is now a national review underway under Dr Alan Finkel, the Australian Government's Chief Scientist. There is also a Review of NSW Energy Security led by the NSW Chief Scientist. In addition, Hazelwood Power Station, with its capacity of 1,600 MW is about to close.

It has been reported¹:

“some of the best energy engineers in the country tell me: Without urgent action residents of NSW, Victoria and South Australia have a 75 per cent chance of blackouts next summer if the Hazelwood power station shuts on April 2. Those blackouts will cost the nation tens and tens of billions of dollars in the food, medicine and processing industries.”

In the face of the developing electricity disaster, the Prime Minister has now proposed adding a 2,000 MW pumped hydroelectric facility to the Snowy Hydro scheme, despite no feasibility study and therefore no accurate costing conducted on the proposal, and if undertaken it is necessarily many years away.

The public has realised politicians have created an ongoing disaster with their wind farms, and it is biting now. So politicians are frantically trying to unscramble the egg, each step with more cost to consumers, without admitting that they and their complicit officials in government have caused this massive disaster.

In that context, the NSW Department of Planning & Environment steps up and says “*PAC, throw some more petrol on the fire. Approve another wind farm.*” Hopefully the PAC is not going to be conned into being the Department's glove puppet in an act of sabotage directed at NSW electricity supply and future blackouts wilfully inflicted on the people of NSW.

No wind farm proposal should be approved unless there has been a thorough assessment of the consequences for grid security over time in order to provide certainty the proposal will not contribute to NSW in a few years having South Australian levels of electricity security. And especially no wind farm should be approved until the NSW Chief Scientist has completed the Review of NSW Energy Security.

The proposal should be returned to the Department until the Department provides a rigorous analysis demonstrating that approval of this proposal, in conjunction with other existing and proposed NSW wind farms, will not adversely affect NSW grid security.

¹ Robert Gottlieb, *The Australian*, 20 March 2017.

The other matter, decommissioning, does not require either rejection or referral back to the Department. It can be adequately covered by inclusion of a straightforward consent condition.

Actively deciding to not take the action appropriate for each of these matters would constitute misfeasance.

Electricity Grid Security

Real Planning

Wind farms and indeed any major power plants are wholly unlike any other projects considered by government. The reason is that they normally operate as part of a complex, integrated system, connected by the grid, where their outputs have to be continuously in synchronisation not just in terms of volume but in terms of particular characteristics (e.g. frequency and phase). That synchronisation has to be on a second-by-second basis and when it fails there can be major consequences throughout the whole of the grid.

In addition, since the power plants connected to the grid compete economically, and “renewable energy” power plants are given a large subsidy, over time ones with a large subsidy tend to drive the others out of the system and, in so doing, progressively degrade the robustness of the grid.

Real planning involves the anticipation of such problems and not approving anything that may have such widespread dire effects without ensuring (not hoping) arrangements have been instituted to ensure the dire effects will not happen.

NSW Electricity System

Since the recent system-wide blackout in South Australia, and the subsequent other blackouts in that state, one would have hoped the NSW Government and its Planning Department would have recognised the threat and instituted a thorough technical and economic assessment to determine under what conditions wind farms can be added to the NSW electricity system without degrading the integrity and security of that system. It may be the Review of Electricity Security under the NSW Chief Scientist is meant to provide that assessment but, if so, the Department expects the PAC to proceed as if it is irrelevant.

The project assessment provided by the Department makes no reference to such analysis, though it does contain the usual guff about how many homes will allegedly be powered by the wind farm. Since there is little growth in Australia’s demand for electricity from the grid, this means that, in order to power those homes, the Rye Park wind farm would be contributing to the displacement of existing generation capacity from the system.

The unsubsidised capacity in the system is mainly coal-fired generators that provide inertia and stability to the grid. So what the Department lauds as a positive, is almost certainly a negative in terms of grid security.

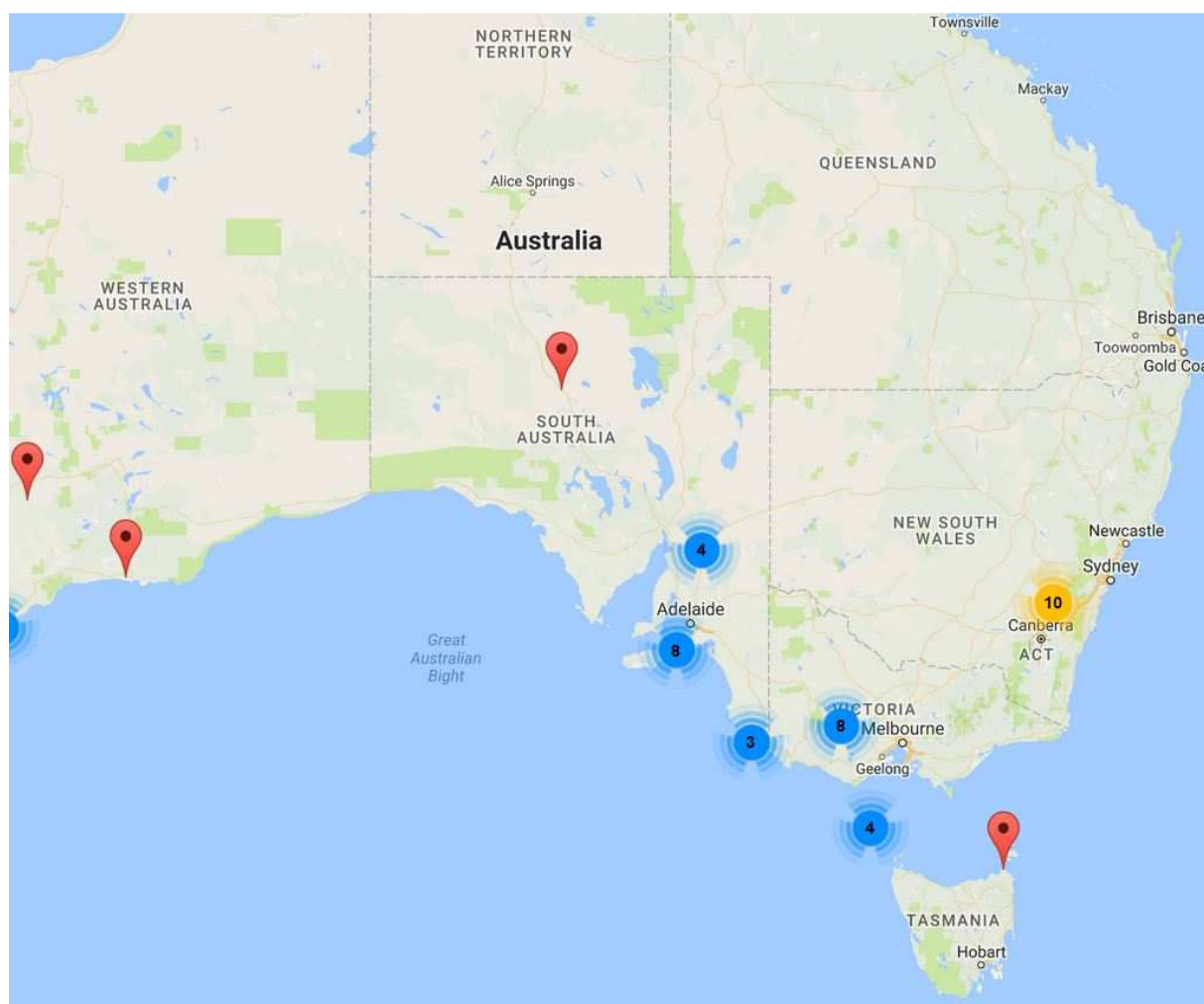
What the Department has been, and appears to be still proposing, is a total laissez-faire approach to wind farm approval and construction without concern for how the output, the

location and the timing of construction will affect the stability of the electricity grid in NSW and the supply of electricity to all the people and businesses in the state.

The NSW Government may outsource the actual production and transmission of electricity but the electorate expects the Government to properly plan our electricity system so it is highly reliable and provides cheap electricity. If we have South Australia's experience they will not be blaming the producers. The rightful anger at the Government, and at the PAC, will make the greyhound issue look like a storm in the proverbial tea cup.

Wind power is inherently expensive and inherently unreliable. Due to the RECs subsidy, renewable energy facilities *gradually* drive low cost thermal plants out of the electricity system.

Note that last point. Subsidised renewable electricity gradually reduces the availability of non-subsidised production as plant becomes too unprofitable to operate and is decommissioned some time after introduction of the renewable plant that ultimately forced its closure – as we are seeing with Hazelwood and other plants. So at the point a new wind farm is opened, the system may still look reasonably robust – so long as all the existing thermal generating plants remain, except that eventually they will not.



Source: http://www.thewindpower.net/country_maps_en_16_australia.php

However, if you are determined to inflict higher electricity prices on the people of NSW there are at least some things that can be done in planning to reduce the risks that accompany this policy.

As can be seen from the map above, almost all South Australia's wind farms are concentrated in a small part of the state. That makes it particularly vulnerable to a local absence of wind or excessive levels of wind. It is, in fact, begging for the sort of wind farm outage that recently occurred in that state when most of them stopped simultaneously.

The map also makes clear that *concentration in NSW* (as in Victoria) *is even worse*. We have an enormous state area that allows the dispersion of wind farms in a way that would make the portfolio much more robust against wind volatility.

That will not happen without conscious planning and control about where and when future wind farms are constructed in NSW.

Developers site to maximise *their* returns. The fact that the wind farm and the state's electricity system may be out for a day or two, and that electricity-dependent process industries may then experience weeks of disruption (because of spoilage and damage during the outage, as happened in South Australia), is irrelevant to the wind farm proprietors.

They bear none of the costs for their harmful siting of wind farms. All the costs fall on the community while the developers walk off with the profits.

South Australia has relied on backup from coal-fired production in Victoria and NSW. That works, to a degree, as long as other states maintain an excess of such capacity. But as you no doubt know, under Premier Andrews, Victoria is now engaged on a path of eliminating some of its coal-fired capacity and South Australia has wiped theirs out. There will be no external backup for NSW if its wind farms all have an off day. The State needs to ensure that it is not at risk of all its wind farms going out at the same time.

Electricity is unlike any other industry. Almost every other activity in our society depends on the instantaneous availability of electricity. No other industry produces output so pervasive and so extensively time critical. The Government can afford to take a relatively hands-off position about the location and timing of most other industrial developments. It cannot do so with electricity supply and in particular when concentrated placement of generators can imperil the operation of the whole system.

The NSW Government needs to plan the placement, across the State, of all future wind farms to minimise the risk of simultaneous outages due to weather. The greater the number of wind farms the greater the need for widespread dispersion.

The Government needs to have a plan for the geographic dispersion of wind farms and advertise what area of the state each new wind farm is to go to in order to ensure that dispersion. The Government also needs to have a strict time requirement for building approved wind farms, such as three years, so that the plan cannot be disrupted by the decision of a wind farm developer to get approval and then bank it.

There is an additional consideration, which is the financial exposure of the NSW Government if the project is approved at this time.

If the review led by the Chief Scientist, or other reviews, shows that adding this project to the grid would be unsafe and harmful for NSW, and the NSW Government subsequently refuses to allow the wind farm to connect to the grid after the PAC had previously approved the project, the NSW Government will be exposed to a massive damages suit. The PAC cannot take that risk on behalf of NSW.

The PAC needs to defer consideration of this proposal until the Department of Planning has provided a well thought out, thoroughly investigated plan to ensure the placement of all future wind farms will minimise the risk to NSW electricity supply; and a set of conditions to be applied to the Rye Park wind farm which will ensure its approval will not in any way lead to a reduction in grid security.

Decommissioning

The Department's recommended decommissioning consent conditions is:

“Within 18 months of the cessation of operations, unless the Secretary agrees otherwise, the Applicant must rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must comply with the objectives in Table 7.”

This is recommended without any means to ensure that the operator will in fact do so. Any operator with half a brain cell will ensure that the corporate entity owning the wind farm is broke at the end of life and has no money with which to decommission.

Either the Department's officials are totally clueless about this (which I doubt) or they are knowingly and deliberately kicking the decommissioning can down the road to be picked up by taxpayers long after those officials have taken their pensions and retired – and they expect the PAC members to engage in the same rip off of the NSW taxpayers.

It is commonly accepted in business in the developed world that:

“it is the responsibility of directors to maximise the value of the business to shareholders, subject to the requirement to comply with the law”

Nowhere is it accepted that it is the responsibility of directors to comply with what Departmental officials would like them to do, unless those wishes are backed up by law and regulation.

At the end of life of the Rye Park wind farm, the corporation (ParentCo) that then owns the corporate entity (OperatingCo) which owns the turbines and the leases and contracts with hosts, will ensure that OperatingCo has no liquid assets (i.e. no cash). In fact the chances are that ParentCo will also sell OperatingCo to another entity outside its control (BrokeCo), which also has no assets either.

Then OperatingCo will turn off whatever turbines are still turning and everyone disappears, leaving the hosts with massive, rusting turbines on their lands and neighbours with a perpetual eyesore that continues to devalue their properties.

The Department has told us that under those circumstances the responsibility for decommissioning falls on the landowners, something the Department tries to keep very quiet.

In its EIS for Liverpool Range Wind Farm, Epuron (which has a good deal of wind farm experience) estimated² decommissioning costs at \$380,000 per turbine. Epuron said “This estimate is on par with other wind farm developments that have recently been approved in New South Wales.” These estimates were for turbines up to 165m high, i.e. slightly higher than for the Rye Park wind farm.

In many cases, perhaps all, the landowners are not going to be able to afford this without going broke. The cost of decommissioning each turbine will certainly exceed all that the host ever earned from the turbine and it is unlikely they will have been banking it for the happy day they could pay to dismantle the turbines.

So the community will be stuck with the cost. The Departmental officials who made this recommendation know that is the case and hopefully the PAC officials also know it is the case. It will therefore be misfeasance to approve this proposal without consent conditions which ensure funding will, with certainty, be available for decommissioning.

The Department has told us they cannot impose a decommissioning bond on the developer (despite having claimed for years they could) because the consent is actually in relation to the land and the developer does not own the land.

In which case it must surely be possible to impose a condition on the landowner, which they must meet before they can allow each turbine to be built on that land. After all, a whole lot of other conditions are imposed to protect birds, bats and moss.

The PAC needs to impose a consent condition on the landowners for each turbine that, before the turbine is constructed, the landowner must obtain and provide to the Department a guarantee of decommissioning funding from a corporate entity with an investment grade credit rating.

The NSW Treasury can, at any point in time, readily inform the Department which corporate entities have investment grade credit ratings.

If there is some regulatory or other current constraint on so doing, the PAC must reject the proposal until the NSW Government has made it legally possible to impose that condition. Failure to do so is to wilfully stick the future NSW Government with the decommissioning costs in order to benefit the developer.

² Liverpool Range Wind Farm EIS, Appendix G Decommissioning and Rehabilitation Plan, section 2.2, February 2014.

Health Protection

The recommended conditions of consent require (Schedule 2, point 1):

“In addition to meeting the specific environmental performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or decommissioning of the development.”

The definitions section of the conditions defines “material harm to the environment” as:

“Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial”

It is noted that this explicitly refers to harm or potential harm to the “health or safety of human beings”. I strongly endorse this recommended consent condition. It will provide some level of protection for the local community and it will help protect the NSW Government should it subsequently decide research provides it a reason to impose some explicit operating restrictions on the wind farm to protect health.

The only weakness in this provision is that the operator is not totally prohibited from causing harm but is required to implement “all reasonable and feasible measures” to avoid harm. That leaves a good deal of scope for lawyers.

This provision has been included in several other recent proposed consent conditions. However, it is much more explicit in covering harm to people than used to be the case in wind farm consent conditions, where they were normally not mentioned at all.

Because one has to read the definitions to discover that actual or potential harm to the health or safety of human beings is prohibited, it is easy to overlook this very important part of the consent conditions.

Consequently, it is important the PAC draw the attention of the proponent and the community to this provision, so no one is unaware that one of the consent conditions specifically relates to the protection of the health and safety of people, without limitation on who those people are. Thus it includes employees, people who are not associated with the wind farm and people who are hosts or in other ways associated. That, of course, is consistent with the terms of the *NSW Work Health & Safety Act 2011*.

Summary

The Department’s recommendations to the PAC put the NSW Government, its taxpayers and its citizens at risk in several ways that are both wilful and scandalous. In particular they include:

1. Contributing to increased grid insecurity; and
2. Virtually guaranteeing the NSW Government will eventually have to pay for decommissioning the Rye Park wind farm.

The PAC should refuse to make a decision on this proposal until it has received a thorough, professional review by the NSW Government of the impact of wind farm approvals on future grid security and identifying the conditions that need to be imposed on wind farm approvals to ensure grid security is protected.

The decommissioning point can be dealt with by imposing appropriate consent conditions as described in this paper.

Failure by the PAC to take these steps will constitute misfeasance by the PAC members and a wilful decision to create harm to NSW and the NSW Government to benefit a developer.

Finally, the PAC should confirm the consent condition enjoining the developer against causing actual or potential harm to the health or safety of human beings, and the PAC should ensure all parties realise the existence of that condition.