RYE PARK WIND FARM PROPOSAL STRATEGICALLY DAMAGING TO NSW

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Based on the information provided by the developer in their submission, approval would be seriously harmful to electricity supply in NSW, harming NSW industry, raising consumer electricity prices, causing loss of jobs and reducing NSW GDP below what otherwise would be the case. The developer has failed to comply with the requirements of Environmental Planning and Assessment Regulations to provide a full analysis of alternatives and the consequences. Consequently, on the information provided by the developer, it is the responsibility of the NSW Government to reject this proposal. Failure to do so would be a conscious and deliberately willful decision to put at risk NSW electricity security and the welfare of citizens dependent on the integrity and cost efficiency of that supply.

Contrary to the assertions of the proponent, the evidence they offer about a potential future shortfall of NSW electricity supply is **NOT** a strategic reason to approve the proposal. It is, in fact, a strategic reason to **REJECT** the proposal.

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The Prospective Supply Shortfall

In its 2014 "Strategic Justification", the developer stated[1]

> TransGrid's Annual Planning Report (2012) and AEMO's Annual Electricity Statement of Opportunities (2011) confirms that growth in demand for electricity will soon exceed supply during peak times.
>
> and
>
> AEMO has estimated that additional power generating capacity will be required to manage peak periods in NSW by summer 2018/19.

It has now found its way to more recent data and, based on a 2015 AEMO report, states:

> Assuming no market adjustments, these withdrawals may lead to a shortfall of generation capacity in NSW by 2022–23, under the medium demand scenario.[2]

Indeed AEMO projects that under a high demand scenario, NSW is likely to experience a supply shortfall in 2021-22.[3]

So the "strategic justification" for the Rye Park wind farm is essentially:

> *Given currently anticipated capacity, there is a real possibility NSW will experience electricity supply shortfalls within a decade and possibly earlier, and Rye Park would cover some of that shortfall with low net emissions of GHGs.*

Unsuitability of Rye Park for State's Needs

However, in reality, ***Rye Park cannot meet the State's requirements to cover the shortfall***. Any potential shortfall needs ***on-demand capacity***, otherwise at times NSW will experience power outages. A wind farm cannot provide on-demand capacity.

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[1] *Rye Park Wind Farm Environmental Assessment*, MP10-0223, Epuron, January 2014, p. 16.
[2] *Rye Park Wind Farm Response to Submission*s, Trustpower / Epuron, 12 May 2016, p. 63.
[3] *Electricity Statement of Opportunities*, AEMO, August 2015, p. 3.

As the developer's submission states:

> Electricity production from wind farms is variable. At any point in time a wind farm could be generating anywhere in the range of 0 to 100% of its power output, depending on the local wind speeds. [4]

The developer attempts to slide around this problem by claiming the national electricity market operator will somehow conjure up supply from somewhere else when Rye Park's turbines (and other wind farms' turbines) aren't operating near nominal capacity. Of course this supply is not going to be found by looking up AEMO's sleeve. It can only be available if someone has built new on-demand capacity to be there when the wind turbines are not turning.

That means the cost of meeting the shortfall Rye Park will supposedly cover is actually the capital and operational costs of Rye Park ***and*** the capital and operational costs of additional on-demand capacity to back up Rye Park. This is a duplication of expenditure that will ultimately be borne by the industry and consumers of NSW, effectively paying twice for providing the power they need. It needs to be factored into the developer's proposal instead of allowing the company to seek a free ride on the back of NSW industry and consumers.

Given Australia's reluctance to use nuclear power, the only practical on-demand capacity is either coal-fired, gas-fired or hydro. In practice, the economics of these alternatives in the context of Australia's REC funded RET means the most likely backup is gas-fired power. That is because, unlike coal-fired plant, fuel is not being consumed while in backup mode. Gas-fired plant may run for only a relatively small amount of time but comes online when there is a real capacity shortfall and the short-term market price for supply has risen very high. Obviously using an organic fuel, it is not eligible for RECS and so the price charged for its power, to recover its capital and fuel costs must be very high. That cost falls on industry and consumers who would also be paying for Rye Park's capital and operational costs.

To date, Australia's wind farms have relied heavily on backup from legacy coal-fired power stations. However, those stations are being withdrawn due to a combination of age and the damaging economics of competing with wind farms most of whose revenue comes from RECS and which, at times of the day when demand drops, are able to keep supplying at low marginal price into the market (since they are simultaneously earning undiminished RECS revenue), thereby forcing uneconomic prices on coal-fired stations which (unlike gas-fired) cannot be simply turned off and on.

State Government Planning Responsibility for Essential Services

Ensuring stable, cost efficient electricity supply is a responsibility of state governments, even if they choose to have that provided via private operators and market mechanisms. So planning for the future and projected shortfalls must encompass the ***combination*** of sources of power required and the ***total costs*** for the State's economy and its consumers.

Electricity generating facilities are part of the essential infrastructure of the State. As such they are different to a great many other major developments, such as a mine, a factory or a large residential development, since they fall under the province of functionality the Government much ensure is properly provided for the State. That requires consideration of

[4] *Rye Park Wind Farm Response to Submissions*, Trustpower / Epuron, 12 May 2016, p. 63.

the development not only in relation to its particular circumstances and locality but in relation to its impact on the overall essential services of which it would form a part.

This is particularly the case when a project is proposed, as in this case, to fill a future gap in providing those essential services in future. In such cases a project may require complementary infrastructure and also pre-empt alternative ways of providing the essential services. The planning decision needs to assess the full implications of the proposal taking account of complementary infrastructure that would be required and also what may be pre-empted. Unless that is done, the decision making is incompetent planning.

Critical Omissions in Developer's Submission

To meet this State Government responsibility requires the developer to at least provide information that allows a good understanding of:

- the infrastructure complementary to the proposed project in order to meet the gap in the State essential services to which it is purporting to contribute; and
- alternative ways of meeting that gap, particularly any likely to be pre-empted by this project.

That information is absent from the original application and from the response to submissions. The proponent should be required to provide it and ***the Department should make no recommendation until it is able to make a robust assessment of the overall impact of this method, and reasonable alternatives, as means of closing the future electricity demand/supply gap for NSW, and the consequences of those alternatives for the general economy of the State, including impact on other industry, jobs and consumers.*** Presumably that will require consultation with the NSW Resources and Energy Department and the NSW Treasury (for overall economic impact).

The NSW *Environmental Planning and Assessment Regulations* require an EIS to include:

> an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, *including the consequences of not carrying out the development, activity or infrastructure (emphasis added)*. [5]

Such analysis does not appear in either the application submitted in 2014 or in the RTS documents in 2016. In sections purporting to consider alternatives, all the developer does is discuss why it thinks Rye Park is a good site for a wind farm and configuration alternatives for the wind farm. The developer does not:

- examine alternative locations for the wind farm;
- alternative technologies such as solar power, either as centralised projects or domestically installed.

The developer certainly does not analyse the consequences of ***not*** carrying out the project, including the potential, in that case, for the supply/demand imbalance which they claim to be intending to fill, to be met with electricity generated by wholly on-demand sources which will not adversely affect the grid, nor the cost to industry and consumers of electricity so generated as opposed to the full cost (including RECs) of this project plus the new on-demand capacity

[5] *Environmental Planning and Assessment Regulation 2000*, Schedule 2, s7(1)(c).

(presumably gas-fired) upon which it will depend in order to fill the future demand/supply gap.

It is understood from recent discussions with the National Wind Farm Commissioner that the pipeline of renewable energy proposals in Australia is now something like three times the capacity necessary to meet Australia's renewable energy target[6]. Those other projects already in the pipeline clearly constitute "feasible alternatives to the carrying out of the development". Yet somehow they have escaped the developer's attention. This seems an alarming oversight for an organisation which claims strong knowledge of the industry.

Economic Gains and Losses for the State

As is found with all these proposals, there is a statement of alleged jobs that will be created, and of the alleged economic stimulus due to its expenditure in NSW. The developer will no doubt claim these "benefits" will be foregone if its project is not built. That is economic nonsense.

The purpose of the project is to provide generating capacity (in conjunction with the conveniently unmentioned complementary on-demand capacity also to be built by someone) to fill a projected future demand/supply gap. Unless the State Government is wholly incompetent, that gap will be filled one way or another and hopefully the State will not be wasting resources on building more capacity than is needed. So there are alternative power generating options to satisfy the objective, only one or some of which will occur in order to do so. Each of those alternatives will involve jobs and expenditure with multiplier effects. Thus, this project does not offer anything on that score which, in general, would not be provided by the alternatives.

There may be some differences in the extent of job creation between this and alternatives. For instance, rooftop solar for equivalent output seems likely to produce more domestic jobs, not dependent on specialist imported labour, than would the Rye Park wind farm proposal. This is an example of the analysis necessary to comply with Schedule 2, s7(1)(c), which the developer has wholly omitted from their proposal.

The alternatives will also differ in the full cost of production and transmission per unit of power and thus in the full incremental price to industry and consumers. Projects which impose higher prices on end users (as seems likely with Rye Park given its dependence on RECS and requirement for expensive on-demand backup) reduce the money those end users have to spend on goods and services other than electricity. That loss of expenditure on other goods and services, and its multiplier effects, is a reduction in economic activity and State GDP. Any serious economic analysis of an electricity project cannot include only the direct economic activity associated with that project. Unless it includes the opportunity costs of alternatives foregone it is actually a fraudulent statement.

Necessary Action

1. **The developer must be required to fully comply with the terms of the *Environmental Planning and Assessment Regulation 2000*, in particular Schedule 2, s7(1)(c).**
2. **The Department should make no recommendation until it is able to make a robust assessment of the overall impact of this method, and reasonable alternatives, as means of closing the future**

[6] The Department can no doubt confirm the actual figure, if it is not already aware of it.

electricity demand/supply gap for NSW, and the consequences of those alternatives for the general economy of the State, including impact on other industry, jobs and consumers.

3. **If 1 and 2 cannot be satisfied, the project must be rejected. Failure to do so would:**
    a. **make the State Government complicit in flouting the Environmental Planning and Assessment Regulations, and**
    b. **deliberately and wilfully put at risk NSW electricity security and the welfare of NSW citizens dependent on the integrity and cost efficiency of that supply.**