Independent Planning Commision
15/7/24

Dear Commissioners,

The closing comments of the DPHI Response offers a scathing assessment of the Applicant's approach to the State Significant Development planning process. A process designed to protect both the natural environment of NSW and its residents from egregious development. A planning process legislated over time by the elected representatives of NSW residents and entered into in good faith. In any reasonable circumstances the project should have been rejected in full many years ago in the face of a developer who consistently ignored a range of concerns presented by the Department over a protracted period of six years. As the comments make plain, many of those issues remained unresolved and resulted in a much reduced project being recommended for approval in December 2023.
It would now appear that a legal end run on that six year process has taken place based on questions of 'viability' heretofore never mentioned by the Applicant, and a public interest test relating to global climate change.

In assessing/determining the benefits of energy projects, particular/local environmental impacts are commonly used to demonstrate disbenefit and can in fact (ADANI, 2015) be enough to delay or halt FF projects.

Additionally, abstract/global environmental impacts (CO_2 emissions) can be used to halt energy developments on the grounds of long term environmental degradation, intergenerational equity, sustainable economic development goals etc (eg Rio Tinto-Warkworth decision, 2013).

In the case of renewable projects in sensitive environmental areas, consideration of the local/particular impacts are now always under the shadow of determinations that privilege the abstract/global impacts of climate change.(i.e the local/particular impacts on koalas, bats, large raptors, unique plant communities etc would almost certainly halt a FF project on the HOGWF site before the abstract/global impacts were considered as a cumulative reason to halt a project).

In the case of HOGWF a whole range of serious local/particular impacts remain unaddressed after a six year development process entered into in good faith, but the project can be re-recommended for approval almost in full (62 turbines) with the reinstatement of 15 turbines, on the basis of:

a) A report from the newly minted IEAPET, which considers renewable projects in isolation, that establishes a reasonable chance of a private benefit under a particular set of assumptions(LCOE/viability/ROI/+NPV)

b) *assuming* a public benefit (affordable electricity to the grid)

c) prioritising the abstract/global public benefit (reducing CO_2 emissions) over the negative local/particular impacts (deforestation, species loss, sedimentation, mass

soil movements, hydrological impacts, unknown impacts on Ben Halls Gap Nature Reserve, and additionally, the future place of high altitude, high rainfall ecosystems in climate adaptation and resilience), and backing that position with a legal opinion from Herbert Smith Freehills which makes plain what the outcome of any appearance before the Chief Judge of the LEC, Brian Preston will be.

There is however an increasing body of reputable evidence that LCOE is an inadequate measure of renewable energy projects, particularly their *value* to the electricity grid as a whole. By addressing the viability of a single project in isolation, and externalising a range of other costs such as duplication (2-8x wind installations depending on who you read), storage costs, transmission costs, back-up dispatchable generation, the true cost to the grid of a renewables project is obscured. The US Energy Information Agency (EIA) specifically cautions against the use of LCOE as a measure of the economic competitiveness of an energy generator (*USEIA, Levelized Costs of New Generation Resources in the Annual Energy Outlook, 2023 pg7*).

An LCOE calculation containing a specific set of assumptions can only be used to establish private benefit (a) above), but is inadequate in establishing a public benefit (b) above)

The correlation of rising retail electricity prices and 'cheap' renewables ('cheap' as measured by LCOE) grid penetration across global electricity markets is increasingly seen as evidence of the inadequacy of LCOE as a measure of *value*. i.e a viable (LCOE) individual project may not be a valuable project. It may not have a public benefit. In fact, it may have a public dis-benefit if its inclusion in the grid adds largely unaccounted costs to that grid that then flow through to the NSW electricity consumer as higher retail electricity prices.
Ignoring the value question and simply looking at LCOE, a project that is unviable at 47 WTG and marginal at 62 WTG is vulnerable to:

a) unforeseen/ignored/unaccounted/excluded project variables such as Engie's own exclusions.
b) Significant increase in construction cost (IEAPET pg14 'downside risk…significant increases in build costs have and are occurring.)
c) Extended build times caused by extended weather variation, particularly above average rainfall. Engie has no detailed build times or time contingencies.
d) Larger than anticipated grid connection costs.
e) Using benchmarks other than the assumptions of GenCost 2023/AEMO, assuming this is the external benchmark used by the IEAPET. There are striking differences between assumptions used in different regions. For instance the US National Energy Laboratory (NREL Feb 16 2021 pg1) now uses 20 years operational life for onshore wind turbines (which to the best of my knowledge doesn't include incentives to 'repower' every 10 years in order to continue to receive Production Tax Credits) A 33% decrease in OL compared to the GenCost assumption of 30yrs has a profound effect on LCOE assumptions contained in the IEAPET report.
   -US EIA cost average for onshore wind for 2023 is US$2098/kw (AUD$3131kw), an average derived largely from installations in the geographically favourable Midwest and Great Plains. That is a large divergence from the upper estimate for the topographically challenged HOGWF contained in the IEAPET.

The inclusion of renewable projects into the grid that are costed at the upper end of LCOE scenarios can only ever exert upward pressure on real power prices and/or require current and ongoing future ‘green incentives’ which amount to a further impost on consumers. The IEAPET report acknowledges this on several occasions, a position at odds with the ‘cheaper electricity’ headlines. More expensive electricity in no way represents a public benefit particularly to the more economically vulnerable. Energy projects should be judged with a more sophisticated set of tools that sifts out those that while providing a private benefit can’t be assumed, by dint of producing electricity, to provide a public benefit.

In regards to the prioritisation of abstract/global public benefit (CO_2 emission reductions) over the particular/local environmental dis-benefits, it is a concept that guarantees the ongoing, degradation and environmental impoverishment of actual places, an ever shifting baseline where each generation has no idea of that which has been lost, in the service of a public benefit so diffuse as to apply equally to a resident of Nairobi, Moscow or Djakarta as it does to resident of NSW. In the face of the latest figures from the Statistical Review of World Energy the loss of 62 poorly located wind turbines is inconsequential both in terms of emissions and energy production.

‘While the Commission might approve a smaller version of a wind farm because it is judged to be preferable to a larger version, lack of commercial viability might mean it is not built. That is, the choice might effectively be between the larger version and no Hills of Gold Wind Farm at all.’ IEAPET Report

In the light of a scathing assessment by DPHI of the Applicant whose behaviour during the development should reflect dimly on their capacity to actually build a project with any diligence, the questionable economic public benefit of the electricity produced, a considerable actual environmental dis-benefit, and a diffuse abstract/global public benefit. I would lean toward ‘no Hills of Gold Wind Farm at all’

Yours Sincerely

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