Blade Throw

If the risk of blade throw is very low, why does the Department include the requirement to assess it in the SEARs of every recent wind farm? Why has it remained in the December, 2016 Wind Energy Framework, when so much has been excised?

The Jupiter Blade Throw Risk Assessment by DNV GL is a minor variant of the one they produced for the Biala EIS. For Biala, DNV GL assessed the risk as "negligible"; for Jupiter "very low".
Why the change? We are not told.

Could it be that the Jupiter wind farm is in an area of rural residential character with 63 residences within 2kms (whereas Biala had none)?

Could it be that the turbine layout, which once again DNV GL, experts in the field, clearly denies responsibility, will create undue turbulence and potential fatigue failure?
Could it be that the lack of host leases has forced EPYC to locate turbines close to non-associated property boundaries?

If it was for any of these reasons, or others, none of them were evaluated.

What has "property boundaries" to do with it you might ask. After all, Noise and Visual Impact are only considered at the residence in NSW.
As DNV GL points out, the Draft wind farm Guidelines, 2011 (under which this DA is being assessed) require the consideration of:
"*the separation distance between turbines, neighbouring dwellings and **property boundaries***."
(my emphasis added)

Whilst this requirement has been expunged from the 2016 Wind Energy Framework, to the benefit of developers, the drafters of the 2011 Guidelines got it right. They realised that blade throw is a physical trespass, quite unlike the impacts we see and hear. We are restricted from physical trespass in many ways. We can't shoot into our neighbour's properties. We can't cut their trees that overlap or interrupt our view. Those restrictions start at the property boundary. What gives Epyc the right to throw turbine blades onto neighbouring non-associated properties?

We agree with DNV GL that blade throw happens. We agree with DNV GL that blades can be thrown a long way, 200 to 1500 metres as they conclude from the literature.
The industry agrees that getting close to turbine blades is not wise.

This is a warning from the Vestas Mechanical Operating & Maintenance Manual for V90-3.0 MW turbines.

> "*Do not stay within a radius of 400m from the turbine unless it is necessary. If you have to inspect an operating turbine from the ground, do not stay under the rotor plane but observe the rotor from the front. Make sure that children do not stay by or play nearby the turbine*"[1]

If wind farm employees shouldn't be working within 400 metres of a turbine, why should the Department think it is acceptable for non-associated property owners.

Having been told to consider separation distance between turbines and **property boundaries**, DNV GL proceeds to ignore the requirement. We know why – the risks associated with blade throw increase dramatically the closer you get to a defective turbine. But:

What gives them the right to ignore the potential impact on non-associated owners, their families, visitors and contractors going about their daily activities on all corners of their properties?

[1] Page 3. https://docs.wind-watch.org/vestasv90-100_safetymanual.pdf

What gives them the right to ignore the potential impact on stock, fencing, domestic power transmission, field machinery and other farm infrastructure?

What gives them the right to only consider the impact on the residence, conveniently outside the “danger area”?

Particularly, what gives them the right to ignore properties with residential rights, some of which have substantial infrastructure much closer to turbines?

The answer; they have no right to physically trespass, regardless of the risk.

DNV GL then serves up some mitigation suggestions. Basically, buy quality turbines and maintain them. As if you wouldn’t. Oh, and stay in your house.

Only a Sydney resident would tell us that the risk we are subjected to is acceptable to them. The Department, in accepting the Biala and Jupiter EIS blade throw sections, and others before them, would appear to agree.

The only acceptable mitigation strategy is to insist on a realistic turbine setback from a non associated property boundary. What is realistic? Let us accept the distance that Vestas recommends, 400 metres. What could be fairer?