LVIA Consultant Demonstrates Mitigation Impossible, Compensation Required

The DGRs (SEARs) request:

> **"provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented;"**

The LVIA, read in conjunction with statements by Clouston Associates (the Biala visual assessment consultant) on other projects, demonstrates it is impossible to provide any useful mitigation of the visual impact of the turbines.

The Department must therefore recommend buyout rights for all residents suffering severe or high visual impacts and where the extent of the visual impact is assessed in terms of the affected residents' own visual values as required by the SEARs.

Mitigation

The obvious structures that have a huge visual impact on the landscape and on viewers are the turbines. All other structures should be hidden from view, including transmission lines, buildings and substations, either by topographical features, being placed underground or by vegetative screening of the structure itself.

The LVIA offers three Mitigation Measures for the turbines:

Project Element	Mitigation Measure	Feasibility	Reliability	Effectiveness
WTGs	Consider colour options for turbines	High	High	Moderate/ Low
WTGs	Avoid use of advertising, signs or logos mounted on turbine structures, except those required for safety purposes	High	High	Moderate
WTGs	Consider options for planting screening vegetation in vicinity of nearby dwellings and along roadsides to screen potential views of turbines. This should be done in consultation with landowners.	High	Moderate	Moderate

Source: LVIA Page 83

Note how the DGRs allow the opportunity for three columns so there are plenty of "Highs" in the matrix.

The first two mitigation measures are obvious but ineffective despite the ratings given. The only question that needs to be asked about a mitigation solution is "does it work?" A colour option, chosen for a sky background will be ineffective against the ground and vice versa.

Both ERM and Clouston Associates describe colour and reflectivity as "minor changes". (Note: non-reflective blades do not rate as a mitigation measure in the LVIA.)

That leaves the planting of screening vegetation around the residence as the only mitigation measure, and this is only rated as having only moderate effectiveness. That is as high as they could honestly rate it.

There are other mitigation options. Clouston Asociates has developed a logical method. It translates perfectly to a wind farm environment but unfortunately does not give the answer

that developers want. It would also end Cloustons involvement in wind farm LVIAs if adopted. Let us go through it anyway.

From the Moorebank Intermodal LVIA:

> **"Effective mitigation measures for any form of potential visual impact are those that entail:**
> **• avoidance**
> **• reduction**
> **• alteration**
> **• off site mitigation**
> **• off site compensation."**
>
> **Source: Moorebank Intermodal Terminal LVIA. Page 89**

Avoidance

Avoidance means "build it where the impacts are not as severe".
A wind farm site is chosen on the basis of it being windy, (but if you believe Infigen, the Tablelands are not windy enough). Also, it has to be close to an existing high voltage transmission line and there have to be some farmers who would rather get cheques than blisters.

The SEARS require:

> **"a strategic assessment of the need, scale, scope and location for the project in relation to predicted electricity demand,"** (my emphasis)

Normally, the developer will give you all the reasons in the world why this is the only possible location for it but in this case they did not. Sooner or later the Department will have to reject an application because the project has been put in the wrong place.

Reduction

This section in the Moorebank Intermodal LVIA starts:

> **"The principal forms of reduction are associated with refinements and modifications that address the siting, bulk and articulation of built form…"**

which in wind farm terms means fewer and smaller and further away. As the developer's objectives are more and larger and closer, it is obvious why this mitigation method was not pursued seriously. Cloustons did make a weak attempt to point out the possibility of relocating some turbines, but if it was beneficial it would have been done.

Alleviation

This section in the Moorebank Intermodal LVIA starts:

> **"Options to alleviate impacts are usually associated with detailed design features such as materials, finishes, articulation, reflectivity, planting character and the like."**

Their feeble attempts are covered above (colour and advertising).

Off Site Mitigation

The whole section in the Moorebank Intermodal LVIA reads:

> **"Any attempt to provide mitigation in the way of screening vegetation off site such as within the public domain in Carroll, Leacock and St Andrews Parks runs a risk of limiting existing regional views and the value to the community. It is recommended that this is not pursued."**

There is no mention of more vegetation screening around the local residences in that Sydney locality.

Off Site Compensation

The whole section in the Moorebank Intermodal LVIA reads:

> **"Given the nature of the proposed on site mitigation measures outlined in 'Alleviation', the resultant visual impact is considered not to be of a level of significance to warrant any off site compensation."**

The concept of compensation is obviously established in urban environments. In the Biala case, the obvious sentence would read:

> **Given our inability to provide any realistic mitigation measures, the resultant visual impact is considered to be of a level of significance to warrant off site compensation.**

The concept of compensation is accepted by other wind farm developers. In the Canberra Times, August 19, 2015, the following is from the Rye Park wind farm developer:

> **"Trustpower wind development manager Rontheo Van Zyl said about 25 landowners whose homes were within two kilometres of a turbine were being offered $2500 a year for the life of the wind farm."**

This is the right concept, but the level of compensation and the minimal distance to which it applies is ridiculous.

For owners of residences within five kilometres of a turbine, the Department knows the solution: buyout rights at independently assessed pre-wind farm valuations, plus transaction costs.

Why 5 kilometres? Because the Visual Impact of a Biala turbine is greater at 5 kms than Crookwell turbines are at 2 kms.

Everybody knows (including the Department and the developer), that the visual impacts of a wind farm cannot be mitigated. Words such as "potential impacts", "could be mitigated", "can provide an opportunity to reduce", "may be possible", "can be highly effective", "would be reduced" do not made affected residents feel any better.

Twice in the EIS, once by Cloustons in the LVIA and then by ERM in the main report there is a degree of honesty:

> **"WTGs are by their nature tall and visually intrusive. The turbine design and location is limited by functional requirements and minor changes such as colour choice and reflectivity are unlikely to alter any of the impact ratings recorded within this report. Whilst screen planting can be highly effective in blocking or filtering views, the impact is often of a highly local nature and can remove parts of the view that may still be considered desirable. New screen planting around affected dwellings would likely reduce some of the visual impact ratings recorded within this report but may not be acceptable to landowners.**
>
> **The most effective mitigation measures will involve siting, design and screening of ancillary facilities such as the substation and access roads."**

Basically what they are saying is that the visual impact of turbines cannot be mitigated.

Faced with this reality, the Department must recommend buyout rights for all residents suffering severe or high visual impacts and where the extent of the visual impact is assessed in terms of the affected residents' own visual values as required by the SEARs.

This is likely to include most properties within 5kms of the wind farm unless the wind farm is topographically concealed from them and, given the size of the turbines, may include many properties well beyond 5 kms.