

APPENDIX 1 – Observations by Mullin Design Associates on behalf of Mountaineering Ireland

Gruggandoo Windfarm Revised Submission 2020

Terms of Reference

The report has been prepared on behalf of Mountaineering Ireland by Pete Mullin, BA (Hons) CMLI, MILI, Chartered Landscape Architect and principal partner of Mullin Design Associates. Pete has over 30 years' experience in the sector.

Introduction

The following observations relate to a proposed large-scale wind farm development of 8 no. 142.5m high turbines on lands located south west of Hilltown, c.3km into the Mourne AONB.

The site is within Landscape Character Area 72 – Slieve Roosley, an LCA defined within the Supplementary Planning Guidance (SPG) as:

LCA72 – Slieve Roosley

Overall sensitivity

This landscape, although mainly elevated and large scale includes intimate valley and footslope landscapes – a combination which gives rise to high scenic quality. Although the vertical scale of the landscape reduces sensitivity, the narrowness of the upland ridges, their wild character, and their wide visibility (from the valleys and surrounding landscapes) make them highly sensitive to wind energy development.

Lower lying foothills to the west and north which are of mixed landscape quality are somewhat less sensitive although their smaller landscape pattern, notable concentration of archaeological sites, and function as a setting to the Mournes are key constraints.

Overall Sensitivity - High

Supplementary Planning Guidance to Accompany Planning - Policy Statement 18 'Renewable Energy' 2010

LCA 72 Slieve Roosley adjoins LCA75 Mourne Mountains defined within the Supplementary Planning Guidance (SPG) as:

LCA75 – Mourne Mountains

Overall sensitivity

This landscape, although large scale overall, includes many areas of complex features eg rocky crags and tors or areas of nature conservation value. The collection of distinctive mountain summits, widespread visibility and memorable skyline profiles make them highly sensitive to wind energy development. Smooth rounded summits are often located in close proximity to other more sensitive summits or notable landscape features such as steep cliffs, rocky crags or important views.

The intactness of this landscape and its high scenic quality mean that it is vulnerable to wind energy development, which would fragment the area and alter the unfettered skyline.

Overall Sensitivity - High

Supplementary Planning Guidance to Accompany Planning - Policy Statement 18 'Renewable Energy' 2010

Prior to presenting our observations in relation to this application, it is considered helpful to underline a number of the important & relevant good practice statements from the industry standard guidance for Landscape & Visual Impact Assessment - The Landscape Institute & Institute of Environmental Management, 'Guidelines for Landscape and Visual Impact Assessment', (3rd Edition) 2013

'1.1 Landscape and Visual Assessment (LVIA) is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right, and on people's views and visual amenity'.

1.15 The Directive is clear that the emphasis is on the identification of **likely significant** environmental effects.

Chapter 1 Summary advice on good practice:

- The emphasis on **likely significant** effects stresses the need for an approach that is proportional to the scale of the project that is being assessed and the nature of its likely effects.

Chapter 2 Summary advice on good practice:

- *LVIA must deal with and clearly distinguish between the assessment of landscape effects, dealing with changes to the landscape as a resource, and the assessment of visual effects, dealing with changes in views and visual amenity.*

Chapter 3 Summary advice on good practice:

- **Assessing the significance of landscape and visual effects is a matter of judgement. It is vital that the basis of such judgements is transparent and understandable, so that the underlying assumptions and reasoning can be examined by others.**
- *The contribution of judgements about the individual criteria contributing to sensitivity and magnitude should be clear, and the approach to combining all the judgements to reach an overall judgement of significance should be as transparent as possible.*

The Landscape Institute & Institute of Environmental Management, 'Guidelines for Landscape and Visual Impact Assessment', (3rd Edition) 2013

Observations

The observations within this appendix focus on Chapter 5 - Landscape and Visual Impact in the Environmental Statement (Volume 1) and are set out under three main headings:

- 1 Layout & Design**
 - 2 Assessment Criteria**
 - 3 Summary**
-

1 Layout & Design

Whilst this observation focuses on the current proposal of 8 no. 142.5m high turbines, it is noted with interest that the applicant has now conceded that the original scheme of 12 no. 125m high turbines contained numerous design weaknesses. Section 5.159 accepts that the reduction to 8 turbines has 'helped to deliver a wind farm that does not overwhelm the skyline' and 'A simpler, more visually balanced relationship is created – with fewer overlapping of turbines'

Further section 5.161 goes on to list potential design improvements from several individual viewpoints.

Whilst there are clear improvements on the very poor original submission, it is contended that the revised scheme continues to demonstrate several poor design principles. This is not necessarily a criticism of the project consultants, but is more likely to be an outworking of the selected site's limitations and constraints versus the developer's expectation in terms of economic viability. In simple terms this can be expressed as the wrong development on the wrong site.

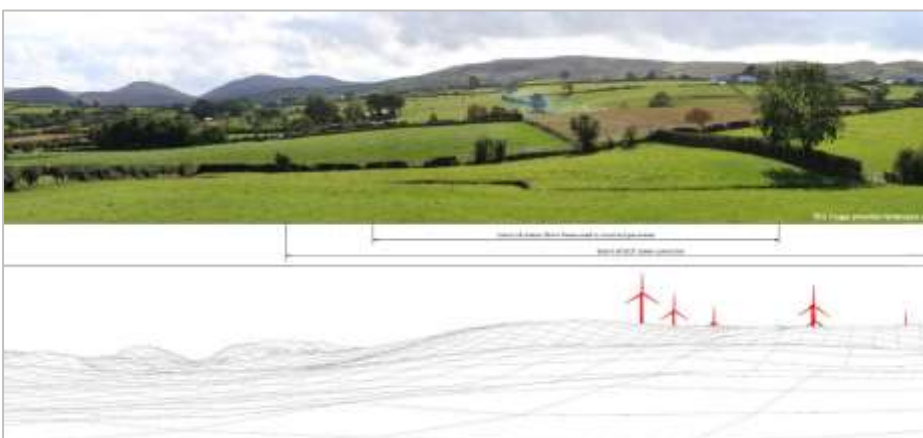
Below are a number of examples of continued poor design.

Example 1 - In landscapes with more complex and varied landform, large turbine groupings may have an undesirable 'flattening' effect on landscape character – *Note & image below from SPG to accompany PPS18*



Photo 2: More complex landform could be 'flattened' by larger turbine groupings.

Gruggandoo Viewpoint 1



In addition to a 'flattening' effect which diminishes the potential scale of the Mourne, particularly when viewed from the west, Viewpoint 1 also illustrates an example of stacking which generally should be avoided.

Example 2 - When setting turbines back from the upland edge, try to avoid creating views of blades that are highly distracting – *Note & image below from SPG to accompany PPS18*



Photo 13: Try to avoid creating views of blades that can be distracting.

Gruggandoo Viewpoint 4



Gruggandoo Viewpoint 3



In addition to Viewpoints 3 & 4 above, this poor design principle has been displayed in several of the selected viewpoints including Viewpoints 8, 13, 14, 15 and 17.

Example 3 - Locations close to distinctive topographic features, field patterns, buildings or other features may have a greater impact on landscape character and bring undesirable scale comparisons – Note & image below from SPG to accompany PPS18



Photo 6: Proximity to scale comparators can increase apparent turbine height.

Gruggandoo Viewpoint 6



Gruggandoo Viewpoint 2



2 Assessment Criteria

Central to the process of Landscape and Visual Impact Assessment, indeed assessment of all EIA subject areas, is ensuring that the assessment criteria used is both clear and balanced. In addition, terminology not only within the LVIA but across the entire EIA should be consistent in order to avoid confusion.

Should the assessment criteria be in anyway confused or weighted incorrectly, the repercussions can be significant, and would inevitably result in confused decision making, skewed outcomes and inaccurate conclusions.

It is considered for such a large-scale development within one of Northern Ireland’s most sensitive and valued landscapes that the Assessment Criteria employed within this Landscape and Visual Impact Assessment are both confusing and in places imbalanced.

Firstly, it appears without any clear explanation that the assessment criteria used within the 2015 and the 2020 applications differ.

For example, within the 2015 submission the Magnitude Criteria for Landscape Character Effects is outlined as show below (Table B3):

Table B3		Magnitude Criteria for Landscape Character Effects
The magnitude of change on landscape character is an expression of degree of the change resulting from the proposed development in terms of size, scale, geographical extent, duration and reversibility.		
Terminology	Definition	
Negligible	The proposal is barely discernible or may be at such a distance that it is very difficult to perceive equating to a no-change situation.	
Slight	The proposal forms a minor component in the wider view which might be missed by the casual viewer / observer. Awareness of the proposal would not have a marked effect on the overall quality of the view.	
Moderate	The proposal is likely to form a readily apparent component within the overall view but the baseline characteristics will continue to prevail.	
Substantial	The proposal forms an immediately apparent component in the view and will redefine its baseline characteristics.	

However, within the 2020 submission this appears to have changed to the following (Table A5.3):

Magnitude	Criteria
Large	Pronounced change to the existing landscape receptor that may affect an extensive area. The change may be long-term or may be irreversible.
Medium	Partial change to the existing landscape receptor that may affect a relatively extensive area. The change may be medium-term or may be irreversible.
Small	Limited change to the existing landscape receptor that may affect a relatively limited area. The change may be short-term or reversible.
Very Small	Very slight change to the existing landscape receptor that may affect a limited area. The alteration may be short-term or reversible.
None	No change to the existing landscape receptor.

Table A5.3 landscape magnitude of effect

This is also the case in relation to ‘Magnitude of Visual Effect’ with the 2015 criteria outlined below (Table B4):

Table B4		Magnitude Criteria for Visual Effects
The visual effects deriving from the proposed development are based on the combined judgement of the anticipated change in nature, visual amenity and duration of the particular view (magnitude) and the nature of the visual receptor (sensitivity).		
Terminology	Definition	
Negligible	The proposal is barely discernible or may be at such a distance that it is very difficult to perceive equating to a no-change situation.	
Slight	The proposal forms a minor component in the wider view which might be missed by the casual viewer / observer. Awareness of the proposal would not have a marked effect on the overall quality of the view.	
Moderate	The proposal is likely to form a readily apparent component within the overall view but the baseline characteristics will continue to prevail.	
Substantial	The proposal forms an immediately apparent component in the view and will redefine its baseline characteristics.	

And again, differing from the criteria used in the 2020 submission below (Table A5.6)

A5.34A.1.34 The criteria for magnitude of visual effect (change) are set out in Table A5.6.

Magnitude	Criteria
Large	The proposals will cause a pronounced change to the existing view, resulting in the loss or addition of features that will substantially alter the composition of the view. The change may be long-term or may be irreversible.
Medium	The proposals will cause a noticeable change in the view, resulting from the loss or addition of features in the view and will noticeably alter the composition of the view. The change may be medium-term or may be irreversible.
Small	The proposals will cause a limited change in the view, which would not materially alter the composition of the view. The change may be short-term or reversible.
Very Small	The proposals will cause a barely perceptible change in the view. The change may be short-term or reversible.
None	No change discernible in the view.

Table A5.6 visual magnitude of effect

In addition, whilst an Assessment Matrix (Table B5 below) was included within the 2015 submission to explain and define which combinations would result in **significant effect**, the 2020 submission does not appear to include one.

This results in confusion and creates a lack of transparency, particularly to the public but also for the competent authority when attempting to compare differences and understand how conclusions have been reached.

Table B5	Scale of Significance			
Significance of an effect is determined by the combination of sensitivity of the affected receptor(s) and the predicted magnitude of change which combine to form a level of effect. Usually an effect is considered 'significant' if the level of effect is 'moderate/substantial' or 'substantial'. The significance of landscape and visual effects is determined by cross-referencing the sensitivity of the landscape or view with the magnitude of change. In determining significance, mitigation measures are taken into account.				
Magnitude of Change	Landscape and Visual Sensitivity			
	High	Medium	Low	Negligible
High	Substantial	Substantial/Moderate	Moderate	Moderate / Slight
Medium	Substantial/Moderate	Moderate	Moderate / Slight	Slight
Low	Moderate	Moderate / Slight	Slight	Negligible
Negligible	Slight	Slight / Negligible	Negligible	Negligible
	Significant			
	Potentially Significant			
	Not Significant			

Notwithstanding the obvious issue resulting from altering the assessment criteria, the terminology within the 2020 version is also vague and considered somewhat imbalanced. For example in the 2020 criteria for 'Magnitude for Landscape Character Effects' the highest category 'Large' would result from a 'Pronounced change'.

Whilst this is considered reasonable there is very little to separate the remaining descriptors – which are similarly phrased as 'Partial change', 'Limited change' and 'Slight change.'

In reality the outworking of these subtle differences can be quite marked when applied to the assessment process. It is suggested that given the high sensitivity of the region, combined with the scale of the proposed development a more considered grading should have been applied to the criteria.

Of more concern are several questionable examples of apparent poor judgement in relation to selection of criteria.

Whilst examples occur throughout the assessment, it is most evident in relation to the selected viewpoint receptors located within LCA 75 Mourne Mountains, and in the landscape character assessment in relation to both LCA72 and the highly sensitive LCA 75 Mourne Mountains, which is explored further below.

LCA 75 – Mourne Mountains

The extract below is from the application’s Appendix 5.3: Landscape Effects Table relating to LCA 75 Mourne Mountains concludes that the LCA is of **High** sensitivity.

Name	Sensitivity	Landscape Effects						Notes
		Construction Phase		Operational Phase		Decommissioning Phase		
		Magnitude of Effect	Significance of Effect	Magnitude of Effect	Significance of Effect	Magnitude of Effect	Significance of Effect	
LCA 75: Mourne Mountains	High – The LCA exhibits an air of wildness and tranquillity and forms the main body of the Mourne ACHB, and consequently is considered to be of high value. The rugged profiles and scenic quality of the Mourne Mountains with distinctive open skylines ensures that there is little ability to accommodate the type of development proposed within this landscape and accordingly the susceptibility is considered to be High.	Small	Minor Adverse	Small	Minor Adverse	Small	Minor Adverse	For the most part the Proposed Development will not be perceived within the LCA, although from localised areas (such as the western slopes and mountain summits) the Proposed Development will be visible within the adjacent Slieve Roosley range, separated by a low lying valley formation. The key characteristics of the LCA, such as the panoramic views towards the Irish Sea and Kingdom of Mourne, will remain unaltered. Nonetheless, in localised areas there will be a slight reduction in a perceived sense of remoteness and tranquillity due to the presence of the Proposed Development in the distant landscape.

This is as expected and reflects the sensitivity identified within the SPG that accompanies PPS18 'Renewable Energy' 2010 which rates the overall sensitivity of LCA 75 as – **‘High’**

However the submitted LVIA goes on to conclude that the Magnitude of Effect to this LCA from this development would be **‘Small’** – which they define as:

Small: ‘Limited change to the existing landscape receptor that may affect a relatively limited area. The change may be short-term or reversible.

Further the written description states:

‘For the most part the Proposed Development will not be perceived within this LCA, although from localised areas (such as the western slopes and mountain summits) the Proposed Development will be visible within the adjacent Slieve Roosley range, separated by a low lying valley formation. The key characteristics of the LCA, such as the panoramic views towards the Irish Sea and Kingdom of Mourne, will remain unaltered. Nonetheless, in localised areas there will be a slight reduction in a perceived sense of remoteness and tranquillity due to the presence of the Proposed Development in the distant landscape’

The descriptive text above appears to value judge the quality of LCA 75 - concluding without any justification that somehow the Eastern portions of the LCA are of more value than the West when it is clear that the entire LCA is an indivisible unit. Indeed the author references the important key characteristic of panoramic views across the ‘Kingdom of Mourne’, stating that they will remain unaltered, then demonstrated through their submitted photomontage that many of these views will be altered.

The text also appears to suggest based on the ZTVI that only a limited area would be impacted which in reality has been calculated as well over 3,000 Hectares or 1/ 5th of the entire LCA 75. This on any measure cannot be described as ‘a relatively limited area’

Notwithstanding the above, it is also essential to highlight that ‘perceived landscape impacts’ do not necessarily follow areas covered by the ZTVI. This is explicitly referenced in Para 3.20 P.35 of the ‘Guidelines for Landscape and Visual Impact Assessment’, (3rd Edition) 2013 which states:

‘Sometimes there may be likely significant effects on the landscape resource but the development may be in a location that does not affect visual amenity significantly, It is also possible, although less common, that there may be likely significant effects on visual amenity without effects on the landscape resource ’

It is considered for such an expansive and sensitive landscape character area the assessment is wholly inadequate in terms of the number of visual receptors selected, with Eagle Mountain and or Shanlieve being obvious omissions which are considered essential examples in order for the applicant’s assertion that there will be a ‘slight reduction in a perceived sense of remoteness and tranquillity’ to be justified.

In addition to consideration from selected visual receptors, impact to the landscape resource in this context must also be considered sequentially. The submitted LVIA makes reference to ‘Fixed’ or ‘Transient’ receptor types, however it does not in any way address the potential sequential experience which will be encountered by the multitude of tourists and recreational users that move through LCA 75.

For example Viewpoint 17 - Rocky Mountain makes reference to The Ulster Way / The Mourne Way, however it does not go on to discuss the sequential experience along this route. Figure 1.0 below – (See Appendix 2 for detailed version) clearly shows the route of the Ulster Way as it passes 7 no. times in and out of the ZTVI along its length from East to West. This single example provides an indication of the importance of sequential experience in the context of this landscape resource with influence and therefore perception clearly extending far beyond those areas simply modelled by the ZTVI software.

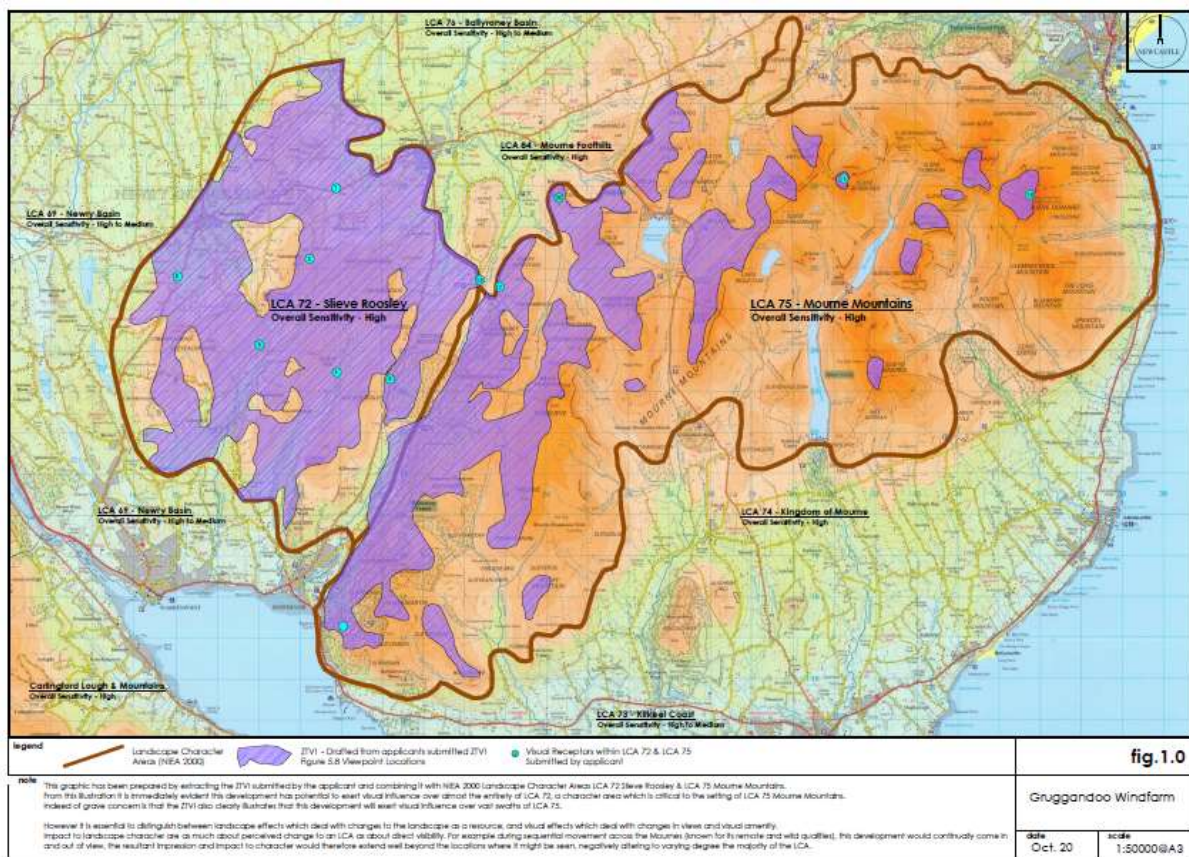


Fig 1.0 – Applicant’s ZTVI with LCA boundaries added in

Figure 1.0 has been prepared by extracting the ZTVI submitted by the applicant and combining it with NIEA 2000 Landscape Character Areas LCA 72 Slieve Roosley and LCA 75 Mourne Mountains.

From this illustration it is immediately evident this development has potential to exert direct visual influence over almost the entirety of the **High** sensitivity LCA 72, (a character area which is critical to

the setting of the Mournes) and across vast swathes (over 3111sq Hectares) of the indisputably **High** sensitivity LCA 75 Mourne Mountains. To consider the potential change to this iconic LCA 75 as **'small'**, with the profound implications which a development of this nature would result in is considered incomprehensible.

Summary

- With this revised development submission there remain several clear examples of poor design in relation to the proposed layout.
- This LVIA is presented in a way which is considered dense and confusing; in numerous instances it is contradictory, with the descriptive text not supporting the eventual criteria selected.
- There is a lack of transparency, something which should be at the heart the LVIA process. This is deeply concerning as it is considered this assessment will be extremely difficult for readers, particularly non-professionals to digest and understand.
- The Assessment Criteria within the LVIA has changed between the 2015 and the 2020 submission, which is unexplained and confusing, particularly for those involved in decision making.
- In relation to the Assessment Criteria within the submitted LVIA, there are concerns about the weighting and the terminology used. With a development of this scale in an indisputably sensitive context it is considered that the criteria in its current form has potential to distort the outcomes.
- Notwithstanding the above concern regarding the criteria terminology, there are also numerous examples of apparent misjudgement in relation to criteria selection. In several instances this appears to have dropped the resultant effect below the 'Significant' threshold when it clearly should not be the case. Even with a cursory examination of the submitted materials there are many instances where the conclusions reached appear understated.
- There is no supporting Assessment matrix to clarify the 'Significant' threshold.
- There are insufficient visual receptors selected within the highly sensitive LCA 75.
- Consideration has not been given to the sequential experience of users moving through LCA75 and therefore the real extent of perceived impact to this landscape resource has not been understood.
- The photomontages within the original 2015 submission are verifiable, in other words provide a realistic impression of the development. However the photomontages within the 2020 submission are labelled 'This image provides landscape and visual context only' and are presented in such a way as to distort the scale for the reader. This not only misrepresents the scale of the development it prevents accurate comparison between the 2015 submission and the larger turbines within the 2020 submission.
- There are a number of cases where the photomontages are graphically inaccurate – For example in Viewpoint 4 the upper blades of two turbines would clearly extend beyond the image frame, and the turbines in Viewpoint 23 have been presented 'greened' in tone rather than white making them camouflaged against the backdrop of the Mournes which will clearly not be the case. Again the scaling of these images is deceptive and considered poor practice.

In conclusion, it is clear that LCA 72 and LCA 75 do not have Landscape Capacity to absorb this development without major impact to their current character. To accept this development would be to accept adverse impact to the Mournes' remote and wild qualities. We contend that the submitted LVIA does not fulfil its primary purpose which is to provide an impartial and transparent assessment, essential for informing a good planning process.