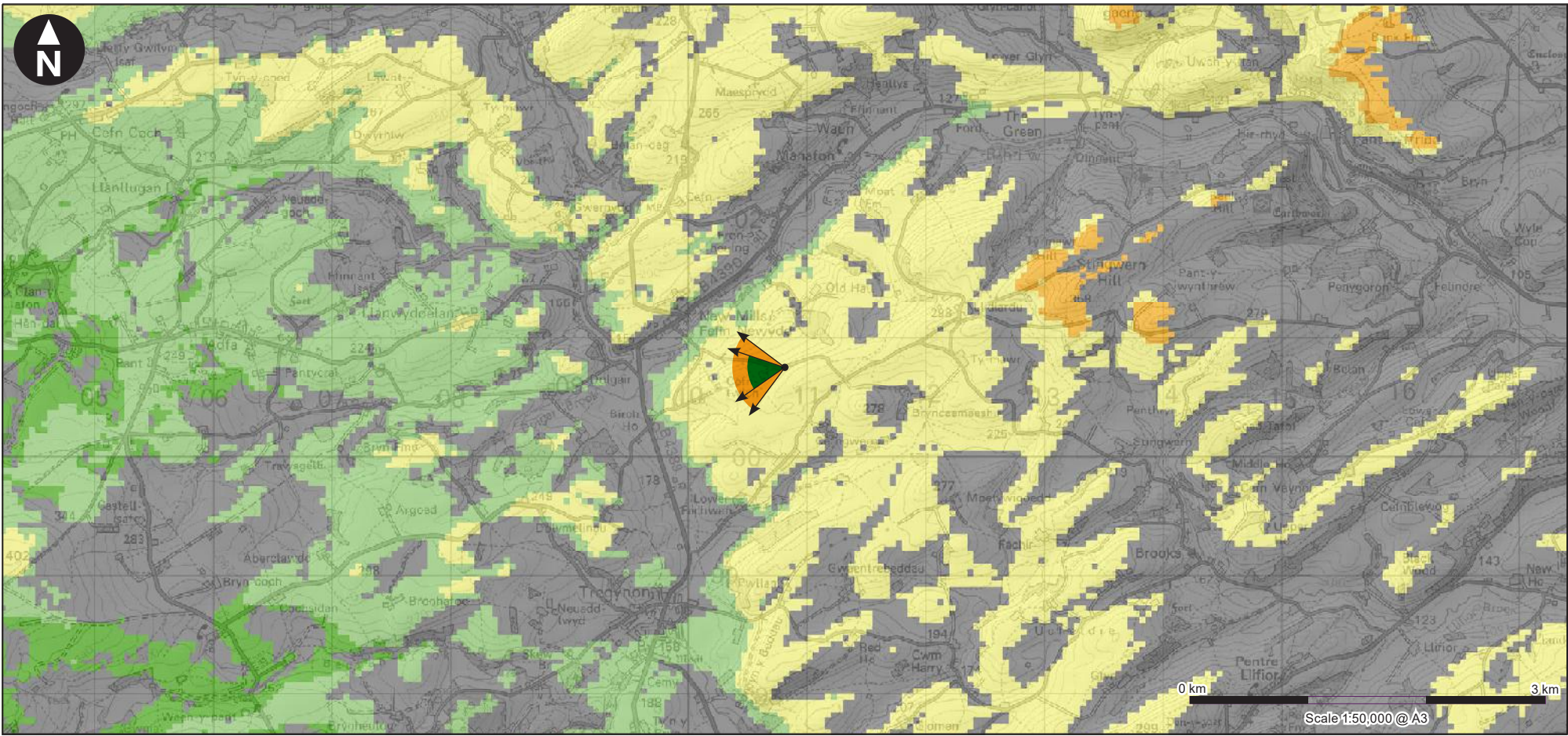
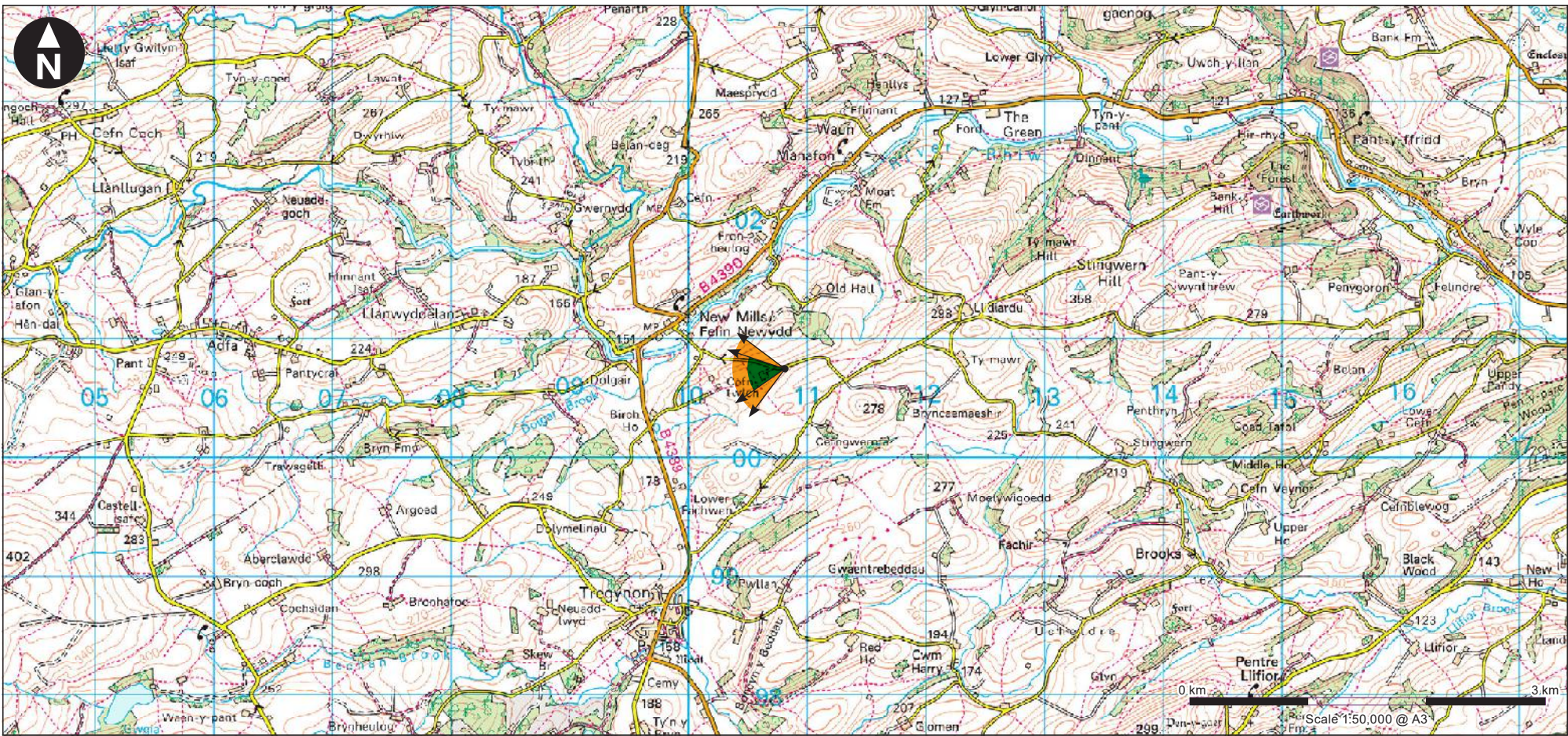


Viewpoint Parameters

OS reference:	N310 825, E300 761
Ground Level Elevation:	246m AOD
Camera Height:	1.5m AGL
Direction of view to site centre ³ :	257°
Distance to nearest turbine:	9,898m
Number of nacelle lighting units theoretically visible ⁴ :	4
Date and time of viewpoint photography:	20/11/2025 @ 16:50
Camera:	Sony ILCE-7RM3A
Lens:	50mm (Sony FE 50mm f/1.2 GM)

Information on the limitations of visualisations:

Visualisations of wind farms have a number of limitations which you should be aware of when using them to form a judgement on a wind farm proposal. These include:

- A visualisation can never show exactly what the wind farm will look like in reality due to factors such as: different lighting, weather and seasonal conditions which vary through time and the resolution of the image;
- The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate;
- A static image cannot convey turbine movement, or flicker or reflection from the sun on the turbine blades as they move;
- The viewpoints illustrated are representative of views in the area, but cannot represent visibility at all locations;
- To form the best impression of the impacts of the wind farm proposal these images are best viewed at the viewpoint location shown;
- The images must be printed at the right size to be viewed properly (260mm by 820mm);
- You should hold the images flat at a comfortable arm's length. If viewing these images on a wall or board at an exhibition, you should stand at arm's length from the image presented.
- The ZTV presented here takes no account of the screening effects of vegetation or buildings.

Additional notes:

1. This figure has been based on the following parameters:
Turbine layout file: CALONYGWYNT_DESIGN_FREEZE_APR2026.WFL
• Hub height: 118.5m
• Rotor diameter: 163m
• Height to blade tip: 200m
2. Turbine positions could be subject to micro-siting (typically up to 50m).
3. Direction given as bearing relative to Grid North (BNG).
4. The number of turbine blades and hubs theoretically visible is counted from the wireframe in sets of 3 and ignores the screening effects of any intervening objects and forestry.
5. This figure is produced in accordance with SNH Visual Representation of Wind Farms 2017 guidance and also broadly accords with the Landscape Institute's Technical Guidance Note 6/19 (Type 4 Visualisation).



Calon Y Gwynt Energy Park
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Figure 7M.10a
Viewpoint N8: Minor Road,
east of New Mills

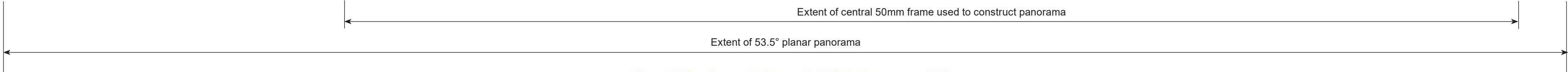
Checked: SH
May 2026
Approved: KW





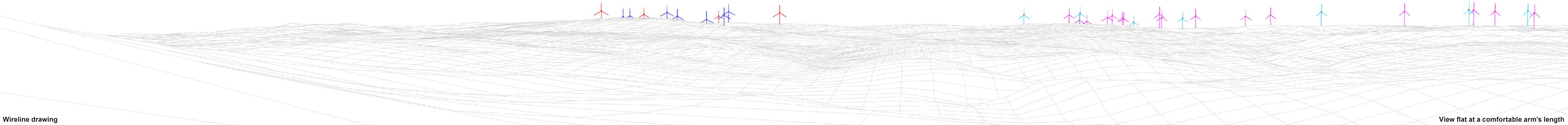
Baseline photograph

This image provides landscape and visual context only



1 2 3 5 4 6 11 7 9 8 10

Llyn Lort



Wireline drawing

View flat at a comfortable arm's length

Wind Farm Key: Lit Calon y Gwynt Wind Farm Unlit Calon y Gwynt Wind Farm Lit Scoping Wind Farms Other Unlit Turbines

OS reference:	N310 825, E300 761	Horizontal field of view:	90° (cylindrical projection)	Camera:	Sony ILCE-7RM3A
Eye level:	247.5m AOD	Principal distance:	522mm	Lens:	50mm (Sony FE 50mm f/1.2 GM)
Direction of view:	262°	Paper size:	841mm x 297mm (half A1)	Camera height:	1.5m AGL
Nearest turbine:	9,898m	Correct printed image size:	820 x 130mm	Date and time:	20/11/2025 @ 16:50

Client

Calon Y Gwynt Energy Park
Environmental Impact Assessment
Chapter 7

Figure 7M.10b
Viewpoint N8: Minor Road,
east of New Mills

May 2026

Checked: SH
Approved: KW

Figure 7M.10a-d_VPN8 New Mills 628240D-WSP-EG-SA-0016_R1.indd Originator: UKCGW775



Photomontage (200cd Intensity Lighting)

Note: The light intensity at this location would be between approximately 100-38cd during periods of poor visibility in any direction within 5km. The photomontage provides an impression of the proposed lighting intensity at 200cd (brightest turbine @ 100cd) in accordance with the Proposed Lighting Strategy and assumes clear visibility from the viewpoint location. Meteorological observations suggest that this is likely to occur for approximately 97% of the time.

OS reference:	N310 825, E300 761	Horizontal field of view:	53.5° (planar projection)	Camera:	Sony ILCE-7RM3A
Eye level:	247.5m AOD	Principal distance:	812.5mm	Lens:	50mm (Sony FE 50mm f/1.2 GM)
Direction of view:	262°	Paper size:	841mm x 297mm (half A1)	Camera height:	1.5m AGL
Nearest turbine:	9,898m	Correct printed image size:	820 x 260mm	Date and time:	20/11/2025 @ 16:50

Client

wind2

Calon Y Gwynt Energy Park
Environmental Impact Assessment
Chapter 7

Figure 7M.10c
Viewpoint N8: Minor Road,
east of New Mills

May 2026

Checked: SH
Approved: KW

View flat at a comfortable arm's length

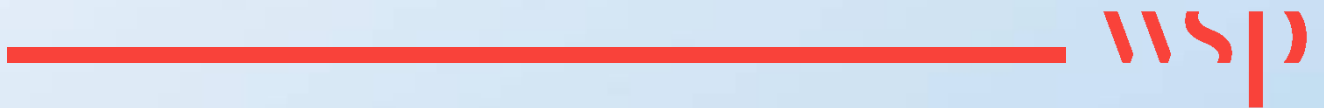
Figure 7M.10a-d_VPN8 New Mills 6228240D-WSPE-FG-SA-00016_R1.indd Originator: UKCGW775



Photomontage (200cd Intensity Lighting)						View flat at a comfortable arm's length																	
Note: The light intensity at this location would be between approximately 100-38cd during periods of poor visibility in any direction within 5km. The photomontage provides an impression of the proposed lighting intensity at 200cd (brightest turbine @ 100cd) in accordance with the Proposed Lighting Strategy and assumes clear visibility from the viewpoint location. Meteorological observations suggest that this is likely to occur for approximately 97% of the time. This 90 degree FoV photomontage is produced in addition to the NatureScot "Visual Representation of Wind Farms" guidance and illustrates the Proposed Development in its landscape setting.						OS reference:		N310 825, E300 761		Horizontal field of view:		90° (cylindrical projection)		Camera:		Sony ILCE-7RM3A		Client wind2	Calon Y Gwynt Energy Park Environmental Impact Assessment Chapter 7	Figure 7M.10d Viewpoint N8: Minor Road, east of New Mills	May 2026	Checked: SH Approved: KW	wsp
Eye level:		247.5m AOD		Principal distance:		522mm		Lens:		50mm (Sony FE 50mm f/1.2 GM)													
Direction of view:		262°		Paper size:		841mm x 297mm (half A1)		Camera height:		1.5m AGL													
Nearest turbine:		9,898m		Correct printed image size:		820 x 260mm		Date and time:		20/11/2025 @ 16:50													

Annex 7M.2

NIGHT-TIME VIEWPOINT ANALYSIS



ANNEX 7M.2: NIGHT-TIME VIEWPOINT ANALYSIS

Table 1 - Viewpoint N1: A470, Clatter

Figure 7M.8a-d	Viewpoint N1: A470, Clatter	
Description and Darkness Survey	This viewpoint is located within a layby on the A470 on the north-western extents of the small village of Clatter. Visibility of the Proposed Development is representative of views available to residents within the settlement and motorists travelling along the A470. The baseline level of light is assessed as partially lit, due to the visibility of static lighting associated with the settlement (a combination of domestic lighting within dwellings and highway lights along an approximately 250 m section of the A470 as it passes through Clatter), with transient lights also being visible along the A470 either as headlights or dashboard lights.	
Night-time Sensitivity	The viewpoint is not within a locally or nationally designated landscape, indicating a Medium value. The susceptibility has been assessed as Low for both road users and residents within Clatter in accordance with Table 1 of the <i>Guidance on Aviation Lighting Impact Assessment</i>¹. The night-time sensitivity is therefore assessed as <i>Medium to Low</i> (residents) and <i>Low</i> (road users).	
Magnitude of Change (Proposed Development only)	Whilst in Operation (at 200cd): One lit turbine (T5) would be theoretically visible on the horizon to the north, at a distance of 2.9 km as indicated in Figure 7M.8b. In reality, this turbine and its aviation warning light would be screened by the residential property in the foreground. Other aviation warning lights on T1, T7 and T10 would be screened by intervening landform. The magnitude of change would be <i>Zero</i>. Whilst Under Construction and Decommissioning: Lighting on vehicles and at compounds during construction and decommissioning activities would be screened by intervening landform from this location although lighting on cranes would be visible during the erection and removal of the turbines. The magnitude of change would be <i>Zero to Low</i> (during crane deployment only).	
Assessment (200cd Lighting with angle attenuation mitigation)	Sensitivity	Medium to Low (residents) Low (road users)
	Magnitude	Zero (Operation) Low (Construction and Decommissioning)
	Level of Effect	No View (Operation) (residents and road users) Minor to Negligible and Not Significant (Construction and Decommissioning) (residents) Negligible and Not Significant (Construction and Decommissioning) (road users)
	Type of Effect	Short-term (Construction and Decommissioning), direct and adverse.

Figure 7M.8a-d	Viewpoint N1: A470, Clatter
Cumulative Assessment: Operational + Consented + Application wind farms and the Proposed Development (The assessment takes account of a 360° FoV from this location).	
Cumulative Magnitude excluding the Proposed Development	Baseline wind turbines (Operational + Consented): No lit operational and consented wind farms would be visible from this location therefore the magnitude of change is judged to be <i>Zero</i> . There would be no cumulative night-time visual effects. Other proposed wind turbines (Other applications): No lit application or scoping wind farms would be visible from this location and therefore the magnitude of change is judged to be <i>Zero</i> . There would be no cumulative night-time visual effects.

Table 2 - Viewpoint N4: A470, east of Talerddig

Figure 7M.9a-d	Viewpoint N4: A470, east of Talerddig
Description and Darkness Survey	This viewpoint is located on the A470 to the east of Talerddig. Visibility from this location is representative of views available to residents on the eastern fringes of Talerddig and road users. The baseline level of light in the direction of the Proposed Development is largely dark, with no stationary lights being visible, although transient lights are visible along the A470 either as headlights or dashboard lights as evidenced in the baseline photography in Figure 7M.9. To the west (in the opposite direction to the Proposed Development), the baseline level of light is partially lit as a consequence of static lighting associated with a small number of highway lights and domestic lighting within dwellings, and transient lighting along the A470 either as headlights or dashboard lights.
Night-time Sensitivity	The viewpoint is not within a locally or nationally designated landscape, indicating a Medium value. The susceptibility has been assessed as Low for both road users and residents within Talerddig in accordance with Table 1 of the <i>Guidance on Aviation Lighting Impact Assessment</i>¹. The night-time sensitivity is therefore assessed as <i>Medium to Low</i> (residents) and <i>Low</i> (road users).
Magnitude of Change (Proposed Development only)	Whilst in Operation (at 200cd): The nearest visible lit turbine would be T7 at approximately 6.3 km distance. Up to three lit turbines would theoretically be visible appearing above the landform / horizon as points of light against the sky, although in reality, the aviation warning light on T10 would be screened by intervening deciduous hedgerow trees during the summer months and partially screened during the winter months. When visibility is >5km in all directions from the Proposed Development, the aviation warning lights would be dimmed to 10% and the visible light intensity would reduce to 200cd. Allowing for the angle intensity mitigation, the intensity of these lights would reduce to between 39-20cd. The magnitude of change would be <i>Low</i>.

Figure 7M.9a-d	Viewpoint N4: A470, east of Talerddig	
	Whilst Under Construction and Decommissioning: Lighting on vehicles and at compounds during construction and decommissioning activities would be screened by intervening landform from this location although lighting on cranes would occasionally be visible during the erection and removal of the turbines. The magnitude of change would be <i>Zero to Low</i> (during crane deployment only).	
Assessment (200cd Lighting with angle attenuation mitigation)	Sensitivity	Medium to Low (residents) Low (road users)
	Magnitude	Low
	Level of Effect	Minor to Negligible and Not Significant (residents) Negligible and Not Significant (road users)
	Type of Effect	Long-term (reversible), direct and adverse.
Cumulative Assessment: Operational + Consented + Application wind farms and the Proposed Development (The assessment takes account of a 360° FoV from this location).		
Cumulative Magnitude excluding the Proposed Development	Baseline wind turbines (Operational + Consented): No lit operational and consented wind farms would be visible from this location therefore the magnitude of change is judged to be <i>Zero</i> . There would be no cumulative night-time visual effects. Other proposed wind turbines (Other applications): No lit application or scoping wind farms would be visible from this location and therefore the magnitude of change is judged to be <i>Zero</i> . There would be no cumulative night-time visual effects.	

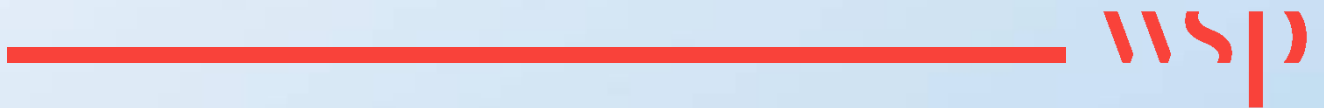
Table 3 - Viewpoint N8: Minor Road, east of New Mills

Figure 7M.10a-d	Viewpoint N8: Minor Road, east of New Mills	
Description and Darkness Survey	This viewpoint is located on a minor road to the east of the small settlement of New Mills. Visibility from this location is representative of views available to road users. The baseline level of light within the view is largely dark, although a small number of lights may be seen at scattered residential properties on the distant hillside. Occasional transient lights would be visible either as headlights or dashboard lights.	
Night-time Sensitivity	The viewpoint is not within a locally or nationally designated landscape, indicating a Medium value. The susceptibility has been assessed as Low for road users in accordance with Table 1 of the <i>Guidance on Aviation Lighting Impact Assessment</i> ¹ . The night-time sensitivity is therefore assessed as <i>Low</i> road users.	
Magnitude of Change (Proposed)	Whilst in Operation (at 200cd): The nearest visible lit turbine would be T1 at approximately 9.9 km distance.	

Figure 7M.10a-d	Viewpoint N8: Minor Road, east of New Mills	
Development only)	All four lit turbines would be visible as regularly spaced points of light extending across approximately 11° of the horizontal FoV and appearing above the landform / horizon. Turbine rotation of T9 may cause the light on the nacelle of T7 to appear intermittently (turning 'on' / 'off') due to a prevailing south westerly wind direction. When visibility is >5km in all directions from the Proposed Development, the aviation warning lights would be dimmed to 10% and the visible light intensity would reduce to 200cd. Allowing for the angle intensity mitigation, the intensity of these lights would reduce to between 100-38cd. The magnitude of change would be <i>Low</i>. Whilst Under Construction and Decommissioning: Lighting on vehicles and at compounds during construction and decommissioning activities may be visible as distant sources of light. Lighting on cranes would also be visible during the erection and removal of the turbines. The magnitude of change would be Zero to Low.	
Assessment (200cd Lighting with angle attenuation mitigation)	Sensitivity	<i>Low</i>
	Magnitude	Low
	Level of Effect	Negligible and Not Significant
	Type of Effect	Long-term (reversible), direct and adverse.
Cumulative Assessment: Operational + Consented + Application wind farms and the Proposed Development (The assessment takes account of a 360° FoV from this location).		
Cumulative Magnitude excluding the Proposed Development	Baseline wind turbines (Operational + Consented): No lit operational and consented wind farms would be visible from this location therefore the magnitude of change is judged to be <i>Zero</i>. There would be no cumulative night-time visual effects. Other proposed wind turbines (Other applications): No lit application wind farms or scoping wind farms would be visible from this location (<i>Zero</i> magnitude). Seven lit turbines within the Llyn Lort scoping scheme would be visible as shown on Figure 7M.10b, appearing as points of light extending across a greater horizontal FoV (when compared to the Proposed Development) and appearing above the landform / horizon. The magnitude of change is judged to be <i>Medium-Low</i>. The additional effect of the Proposed Development would remain Negligible and Not Significant whilst the combined cumulative effect would be Minor and Not Significant.	

Annex 7M.3

NIGHT-TIME LVIA CHECKLIST



ANNEX 7M.3: NIGHT-TIME LVIA CHECKLIST

Appendix 1 of the Guidance on Aviation Lighting Impact Assessment¹ recommends that the assessment should include the following information / considerations as set out in the Application Submission Checklist:

Aviation Lighting Proposals and Mitigation Information to be provided: ☒ Plan showing the wind farm layout with numbered turbines and a corresponding schedule of visible lights (both nacelle and mid-tower lights where required). ☒ Information on proposed visible aviation lighting scheme, including a clear listing of all proposed mitigation measures. ☒ Information on any project-specific mitigation approvals that have been obtained or are still required from CAA. Recommendations: ☒ Developers are encouraged to combine available mitigation measures into wind farm design to mitigate the lighting impacts as far as is reasonably practicable, whilst maintaining a proportionate approach.
Night-time Aviation Lighting Impact Assessment Information to be provided: ☒ Plan showing the extent of the night time Study Area. ☒ Assessment of night-time effects for each relevant receptor, in particular where qualities of wildness, darkness, remoteness and lack of man-made elements are features or characteristics of the landscape. ☒ An appraisal of all viewpoints within the study area should be included where there may be significant effects and can be informed by wireline visualisations. ☒ Detailed assessment of, in most instances, two or three representative viewpoints accompanied by photomontage visualisations to adequately represent the key impacts. ☒ Assessment of any likely significant cumulative effects from visible aviation lighting, where appropriate. Recommendations: ☒ Ensure that both daytime and nighttime assessments are proportionate, appropriate, comprehensive, and transparent. ☒ A proportionate approach, with a focus on significant effects, is required when scoping the relevant landscape and visual receptors and how they may be affected. It is worth noting that receptors and their sensitivity will not always be the same during the day and night. ☒ The assessment should take into account the baseline darkness / artificial lighting characteristics and people's likely use of different areas during darkness and low light (dusk / dawn) conditions. ☒ The extent of the lighting assessment study area for the LVIA should be informed by a hub height ZTV (to indicate the extents of aviation lighting visibility), and an understanding of the nature of the likely effects. Experience suggests a study area of 10km - 15km should be sufficient for the night-time Aviation Lighting Impact Assessment, to ensure significant effects are captured, depending on the sensitivities. ☒ Viewpoint assessment should provide commentary cross referenced to lighting wirelines and photomontages.



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