



## **APPENDIX 12-3**

### **VIEWPOINTS ASSESSMENT**

Table Error! No text of specified style in document-1 Viewpoints

VP No	Description	Grid Ref. (IG)
VP01	View from the L-1871-3 local road in the townland of Gortnaskea, approximately 3.42 km south-west of the of the nearest turbine.	E 240,018 N 428,004
VP02	View from the Inch Island Car Park adjacent to the L-7531-4 local road in the townland of Inch Level, approximately 10.56 km south-west of the of the nearest turbine.	E 234,586 N 423,209
VP03	View from the L-1731-3 local road in the townland of Carrowmore or Glentogher, approximately 2.45 km north-east of the of the nearest turbine.	E 245,630 N 435,330
VP04	View from R268 regional road at a Co. Donegal scenic view in the townland of Lehardan, approximately 12.73 km west of the of the nearest turbine.	E 229,228 N 432,954
VP05	View from R268 regional road at a layby and Co. Donegal scenic view in the townland of Bunnaton, approximately 16.1 km north-west of the of the nearest turbine.	E 226,932 N 437,121
VP06	View from the A2 in the townland of Gresteel Beg, approximately 16 km south-east of the of the nearest turbine.	E 256,367 N 420,892
VP07	View from a layby and Carrickhue viewing point on the A2 in the townland of Carrickhugh, approximately 17.8 km south-east of the of the nearest turbine.	E 259,619 N 422,078
VP08	View from the L-1641-5 local road in the townland of Tullyarvan, approximately 7.51 km west of the of the nearest turbine.	E 235,125 N 434,379
VP09	View from the L-1731-2 local road in the townland of Illies, approximately 1.26 km north-west of the of the nearest turbine.	E 242,883 N 433,730
VP10	View from R242 regional road in the townland of Carrowmore, approximately 17 km north of the of the nearest turbine.	E 247,017 N 449,996
VP11	View from R247 regional road at a Co. Donegal scenic view in the townland of Gortcally, approximately 17.56 km west of the of the nearest turbine.	E 224,333 N 432,819
VP12	View from the L-7241-2 local road in the townland of Tullydush Upper, approximately 2.5 km west of the of the nearest turbine.	E 239,442 N 430,090
VP13	View from Erosmore Drive in Derry City in the townland of Kilfinnan, approximately 14.24 km south of the of the nearest turbine.	E 245,966 N 416,786

1.1

## Range of Turbine Dimensions Assessed in Photomontages

Given that this application proposes a limited range comprising maximum and minimum turbine tip heights, hub heights and blade lengths. Various turbine dimension configurations, within this range, have been considered in relation to the likely landscape and visual effects resulting from the proposed development. The dimensions presented below are the maximum and minimum turbine parameters assessed:

- Turbine Tip Height - Maximum height 173 metres, Minimum height 162 metres
- Hub Height - Maximum height 107 metres, Minimum height 96 metres
- Blade Length - Maximum length 70 metres, Minimum length 66 metres.

A blade length of 66m and a hub height of 107m was considered throughout this assessment as a representative visual illustration of the proposed development on the basis of the professional judgement of MKO's LVIA team and on consideration of the range of turbines which could be installed. This combination of blade length and hub height ( providing a 173m tip height) has been identified as a worst-case scenario for likely visual effects and is most representative for assessment, on the basis that the greatest extent of the entire turbine structure (blades and tower) would potentially be visible from the viewpoints assessed in the EIAR. This turbine configuration of the reasonably limited range is termed as the 'Highest Hub and Shortest Blade' and is presented for all 13 No. photomontage viewpoints. The photomontage booklet accompanying the EIAR (Volume 2) presents visualisations of the limited range of alternative turbine configurations at key viewpoint locations. These configurations (hub height, blade length and tip height) are reported below, as well as viewpoints within the photomontage booklet from which they are shown.

- **Highest Hub and Shortest Blade** - Upper Bound Configuration of the proposed range – All 17 No. Photomontage Viewpoints.
  - Maximum Tip Height – 173 metres
  - Maximum Hub Height – 107 metres
  - Minimum Blade Length – 66 metres

Irrespective of which combination of hub height and blade length, within the proposed range outlined in this application, is installed on site, the significance of residual visual effects will not be altered (Refer to Viewpoint (VP) Assessment in Appendix 12-3 of the EIAR). However, for the avoidance of doubt, two alternative turbine configurations, listed below, are presented for five selected viewpoints included in the photomontage booklet. These configurations were deemed appropriate alternative visual representations of the proposed development within the proposed range. The viewpoints selected are representative of short-range views (VP 01, VP 03, VP 09 and VP12 <3.5 km from the nearest proposed turbine) and a longer-range view (VP 08, 7.5km from the nearest proposed turbine). The following configurations were also considered

- **Lowest Hub and Shortest Blade - Lower Bound** Configuration of the 'Limited Range' – 4 No. Photomontage Viewpoints (VP 01 Gortnaskea; VP 03 Carrowmore or Glentogher; VP 08 Tullyarvan; VP 09 Illies; VP 12 Tullydish Upper)
  - Minimum Tip Height – 162 metres
  - Minimum Hub Height – 96 metres
  - Minimum Blade Length – 66 metres
- **Lowest Hub and Longest Blade - Median** Configuration of the 'Limited Range' – 4 No. Photomontage Viewpoints (VP 01 Gortnaskea; VP 13 Carrowmore or Glentogher; VP 19 Tullyarvan; VP 20 Illies; VP 23 Tullydish Upper)
  - Tip Height – 166 metres
  - Minimum Hub Height – 96 metres

- Blade Length – 70 metres

These configurations are presented as photomontages within both 90 degree and 53.5 degree fields of view with accompanying wireframes.. **Irrespective of which turbine model** (within the ranges for which planning permission is being sought) **is procured for the proposed development, the significance of residual landscape and visual effects will not be altered.**

1.2

## Significance of Visual Effects – Brief Methodology

The visual receptor sensitivity and magnitude of change are determined according to the criteria set out in Table **Error! No text of specified style in document.-2** and Table **Error! No text of specified style in document.-3** below.

Table **Error! No text of specified style in document.-2** Visual Receptor Sensitivity Assessment Criteria

Sensitivity of Visual Receptor(s)	Description
High	Included in this category are viewers that are primarily focused on views from this particular location, such as visitors to popular destinations identified for their outstanding views or residents in close proximity or medium proximity whose primary views will be in the direction of the development.
Medium	Includes viewers at designated views or landscapes. Viewers such as residents in medium proximity to the viewpoint; viewers at well-known heritage or popular tourist or recreational areas, viewers along scenic or tourist routes
Low	Includes viewers who may have some susceptibility to a change in view, such as those from views which are not designated but may have local recreational uses or those travelling along routes or at view which are considered moderately scenic.
Negligible	Includes viewers engaged in activities where the focus is not on the landscape or view. These including motorised traffic, viewers at work or engaged in sport not related to views or experience of the landscape.

Table **Error! No text of specified style in document.-3** Magnitude of Visual Change Assessment Criteria

Magnitude of Change	Description
High	Substantial change, where the proposals would result in large-scale, prominent or very prominent change, leading to substantial obstruction of existing view or complete change in character and composition of the baseline through removal of key elements or addition of uncharacteristic elements which may or may not be visually discordant. This includes viewpoints where the proposed development is fully or almost fully visible over a wide extent, at close proximity to the viewer. This change could be long term or of a long duration.
Medium	The change in the view may involve partial obstruction of existing view or partial change in character and composition of the baseline through the introduction of new

Magnitude of Change	Description
	elements or removal of existing elements. Likely to occur at locations where the development is partially visible over a moderate or medium extent, and which are not in close proximity to the development. Change may be readily noticeable but not substantially different in scale and character from the surroundings and wider setting.
Low	The proposals would be partially visible or visible at sufficient distance to be perceptible and result in a low level of change in the view and its composition and a low degree of contrast. The character of the view may be altered, but will remain similar to the baseline existing situation. This change could be short term or of a short duration.

The visual receptor sensitivity and magnitude of change are then used to look up the significance of the effect in the EPA chart in Figure **Error! No text of specified style in document.**-1 below.

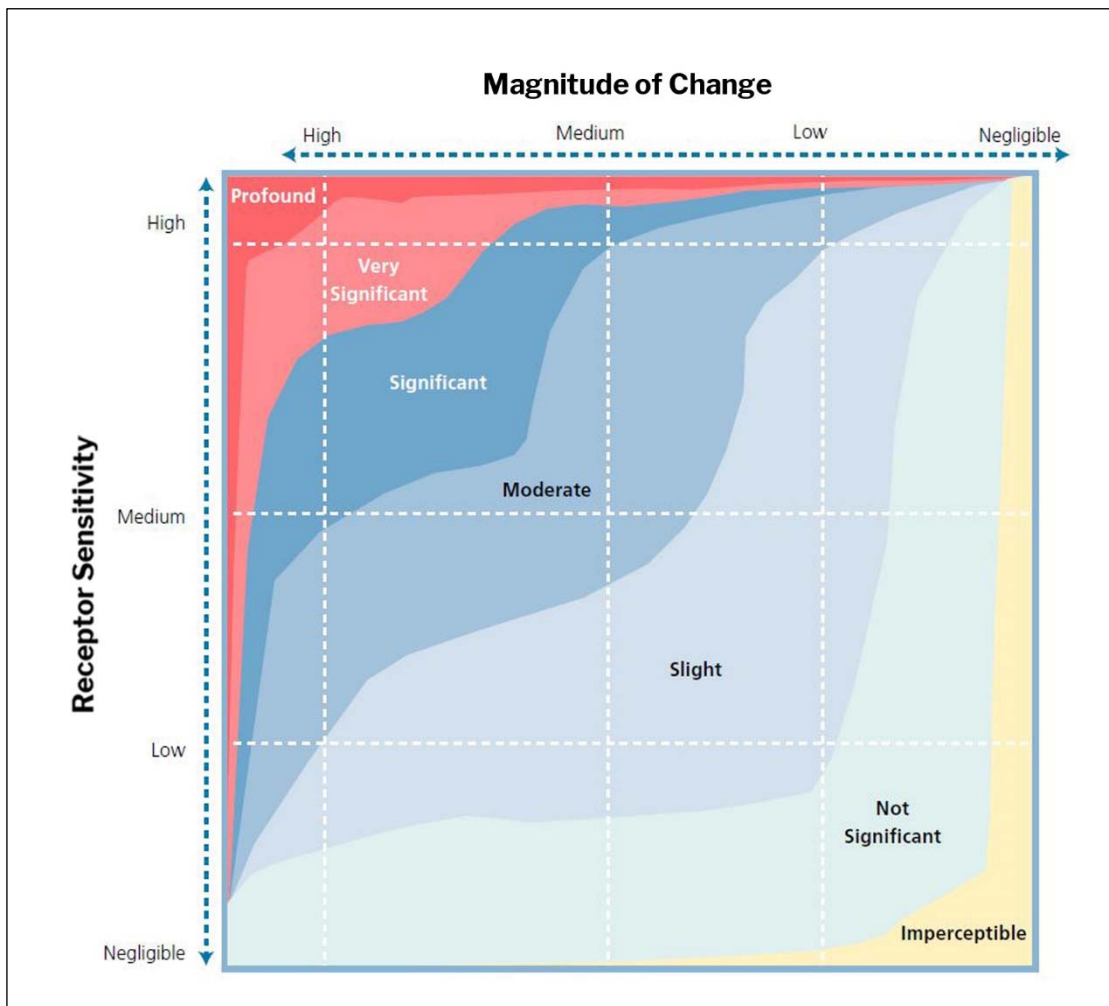


Figure **Error! No text of specified style in document.**-1 EPA chart to determine significance of landscape and visual effects

Viewpoint 01 Gortnaskea			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from the L-1871-3 local road in the townland of Gortnaskea</li> <li>➤ approximately 3.42 km south-west of the of the nearest turbine (T12)</li> <li>➤ Grid Reference E 240,018 N 428,004</li> <li>➤ No. of turbines visible: 10/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 9 Scalp Mountain - Low	<b>Visual Receptor(s) &amp; Sensitivity</b>	Local Traffic- Negligible
<b>Description of 'Do Nothing Scenario'</b>	<p>View along a local road with dense coniferous forestry to the right. To the left there is recently replanted coniferous plantation behind a narrow band of deciduous trees. In the medium distance there is mature coniferous forestry with gently undulating upland areas behind.</p> <p>There are existing and permitted turbines along nearly all the upland area within the view with a gap in the centre.</p>		
<b>Description of Proposed View</b>	<p>Five turbines are entirely screened by vegetation and half or more of the towers of seven turbines are screened by landform. There is visual stacking of one set of turbines and approximately a third of the turbines' blades cross the skyline. The slightly irregular spacing and appearance of staggered linear layout is in keeping with the DoEHLG guidelines 'Transitional Marginal' landscape type and the spatial extent of the proposed wind farm within the view is moderate and is in balance with its surroundings.</p>		
<b>Cumulative Effects</b>	<p>There is visual overlap with the existing Some and Carrowglen turbines and the proposed turbines to the left. Where there is slight visual incongruity between the difference in height and design of the two wind energy developments. Visual stacking of two existing and three proposed turbines also occurs.</p>		
<b>Description of Alternative Dimensions (refer to Section 1.1 above)</b>	<ul style="list-style-type: none"> <li>➤ It is difficult for an observer to determine visual differences of this turbine envelope variation within this landscape view compared with other variations (i.e. Lowest Hub and Longest Blade &amp; Lowest Hub and Shortest Blade) without the aid of comparison wireframe graphic visuals.</li> <li>➤ In reality, it is unlikely that the difference between the differing turbine configurations will materially increase or decrease the visibility of these turbines from this viewpoint and will not alter the significance of visual effects reported in the following rows</li> </ul>		
<b>Sensitivity of Visual Receptor(s)</b>	<p><b>Negligible</b> Includes viewers engaged in activities where the focus is not on the landscape or view. These including motorised traffic, viewers at work or engaged in sport not related to views or experience of the landscape.</p>		
<b>Magnitude of Change</b>	<p><b>Medium</b> The change in the view may involve partial obstruction of existing view or partial change in character and composition of the baseline through the introduction of new elements or removal of existing elements. Likely to occur at locations where the development is partially visible over a moderate or medium extent, and which are not in close proximity to the development. Change may be readily noticeable but not substantially different in scale and character from the surroundings and wider setting.</p>		
<b>Significance of Effect</b>	<p><b>Negligible x Medium = Not Significant (EPA, 2017)</b>          An effect which causes noticeable changes in the character of the environment but without significant consequences.</p>		

Viewpoint 01 Gortnaskea	
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ The location near the ridge, layout and taller turbine height in this relatively open and visually extensive landscape are in accordance with the siting and design guidelines in the DoEHLG (2006) and Draft DoHPLG (2019) guidelines for Transitional Marginal landscape character type.</li> <li>➤ Residential visual receptors are over 1.1 km away</li> <li>➤ Motorised traffic are likely to be traveling at speeds close to the speed limit of 80kph along this straight stretch of road.</li> <li>➤ A significant proportion of the proposed development is screened</li> <li>➤ Moderate spatial extent of the proposed development within the view</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<p><b>Not Significant (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment but without significant consequences.</p>

Viewpoint 02 Inch Island			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from the Inch Island Car Park adjacent to the L-7531-4 local road in the townland of Inch Level</li> <li>➤ approximately 10.56 km south-west of the of the nearest turbine (T12)</li> <li>➤ Grid Reference E 240,018 N 423,209</li> <li>➤ No. of turbines visible: 6/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 10 South Inishowen Farmland - Medium	<b>Visual Receptor(s) &amp; Sensitivity</b>	WAW Discovery Point - High Residents- Medium Motorised Traffic- Negligible
<b>Description of ‘Do Nothing Scenario’</b>	This view was taken from Inch Island, a Wild Atlantic Way Discovery Point, at the Inch Island Car Park. In the foreground is a grassed field that leads down to Lough Swilly. Across the inlet the shoreline is densely forested. Further inland there are many residential properties occasionally interspersed by fields. Beyond this the ground rises to upland areas mainly covered in mountain moorland, the highest of which is Asdevlin Hill.		
<b>Description of Proposed View</b>	Six blade tips will be just visible crossing the skyline above the valley to the left of Asdevlin Hill. Due to mature trees on the ridgeline these three blade tips will be partially screened. All other parts of the proposed development are entirely screened by landform. The spatial extent of the proposed wind farm within the view is negligible.		
<b>Cumulative Effects</b>	Cumulative visual effects do not arise from this viewpoint.		
<b>Sensitivity of Visual Receptor(s)</b>	<b>Medium</b> Includes viewers at designated views or landscapes. Viewers such as residents in medium proximity to the viewpoint; viewers at well-known heritage or popular tourist or recreational areas, viewers along scenic or tourist routes.		
<b>Magnitude of Change</b>	<b>Negligible</b> - Any change would only be barely distinguishable from the status quo “do-nothing scenario” in the surroundings. The composition and character of the view would be substantially unaltered, approximating to little or no change.		
<b>Significance of Effect</b>	<b>Medium x Negligible = Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.		

Viewpoint 02 Inch Island	
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ Nearly all the proposed development is screened</li> <li>➤ Very minor spatial extent of the proposed development within the view</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<p><b>Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.</p>

Viewpoint 03 Carrowmore or Glentogher			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from the L-1731-3 local road in the townland of Carrowmore or Glentogher</li> <li>➤ approximately 2.45 km north-east of the of the nearest turbine (T4)</li> <li>➤ Grid Reference E 245,630 N 435,330</li> <li>➤ No. of turbines visible: 15/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 5 Slieve Sneacht - Low to Medium	<b>Visual Receptor(s) &amp; Sensitivity</b>	Motorised Traffic - Negligible
<b>Description of 'Do Nothing Scenario'</b>	<p>View across large rough grazing fields to patches of coniferous plantation interspersed by moorland rising up the slope to form a low undulating ridgeline. There are long-distance views to Scalp Mountain in the centre of the view and to Mouldy Hill to the right.</p> <p>There are existing and permitted turbines in two groups to the right and left of the images with a large gap in the centre.</p>		
<b>Description of Proposed View</b>	<p>All fifteen turbines are visible, albeit three turbines are partially screened by landform. The turbines appear as a coherent, slightly irregular cluster. There is visual stacking of three sets of turbines and approximately half the turbines' blades cross the skyline. Due to the proximity of the turbines to the viewpoint the spatial extent in the view is significant.</p>		
<b>Cumulative Effects</b>	<p>The existing SomeWind Farm turbines are seen amongst the proposed turbines to the right. Here, the furthest turbine appears alongside the Some turbines and although its blades are longer, its hub is at the same height as that of the adjacent Some turbines, hence, could be conceived as being part of the Some Wind Farm. The other proposed turbines appear as a separate group from the Some turbines due to the perceived difference in size and design between the proposed and existing wind farm. To the left there is a gap between the permitted Aught turbines and the proposed Glenard turbines, providing some form of visual separation between the two wind farms.</p>		
<b>Description of Alternative Dimensions (refer to Section 1.1 above)</b>	<ul style="list-style-type: none"> <li>➤ It is difficult for an observer to determine visual differences of this turbine envelope variation within this landscape view compared with other variations (i.e. Lowest Hub and Longest Blade &amp; Lowest Hub and Shortest Blade) without the aid of comparison wireframe graphic visuals.</li> <li>➤ In reality, it is unlikely that the difference between the differing turbine configurations will materially increase or decrease the visibility of these turbines from this viewpoint and will not alter the significance of visual effects reported in the following rows.</li> </ul>		



Viewpoint 03 Carrowmore or Glentogher	
<b>Sensitivity of Visual Receptor(s)</b>	<b>Negligible</b> Includes viewers engaged in activities where the focus is not on the landscape or view. These including motorised traffic, viewers at work or engaged in sport not related to views or experience of the landscape.
<b>Magnitude of Change</b>	<b>High</b> - Substantial change, where the proposals would result in large-scale, prominent or very prominent change, leading to substantial obstruction of existing view or complete change in character and composition of the baseline though removal of key elements or addition of uncharacteristic elements which may or may not be visually discordant. This includes viewpoints where the proposed development is fully or almost fully visible over a wide extent, at close proximity to the viewer.
<b>Significance of Effect</b>	<b>Negligible x High = Not Significant (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment but without significant consequences.
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ The location near the ridge, layout, spacing and taller turbine height in this relatively open and visually extensive landscape are in accordance with the siting and design guidelines in the DoEHLG (2006) and Draft DoHPLG (2019) guidelines for Transitional Marginal landscape character type.</li> <li>➤ Motorised traffic are likely to be traveling at speeds close to the speed limit of 80kph along this stretch of road.</li> <li>➤ Viewpoint at local road with low levels of traffic</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<b>Not Significant (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment but without significant consequences.

Viewpoint 04 - Lehardan			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from R268 regional road in the townland of Lehardan</li> <li>➤ approximately 12.73 km west of the of the nearest turbine (T12)</li> <li>➤ Grid Reference E 229,228 N 432,954</li> <li>➤ View from a Co. Donegal designated scenic view and located on Wild Atlantic Way</li> <li>➤ No. of turbines visible: 15/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 20 South Fanad Uplands & Coast - Medium	<b>Visual Receptor(s) &amp; Sensitivity</b>	Residents- Medium Designated Scenic View- Medium Motorised Traffic- Negligible
<b>Description of 'Do Nothing Scenario'</b>	<p>The view is taken from a Co. Donegal designated view just off the R268 regional road. It looks across a bay with stony outcrops seen in the water in the foreground. The bay and land occupied by numerous residential properties is seen curving around it in the medium distance. Across Lough Swilly the mountainous upland around the proposed development site can be seen.</p> <p>There is a large group of existing and permitted turbines in the centre of the view.</p>		
<b>Description of Proposed View</b>	Though substantially screened by landform, all of the turbines will be visible from this viewpoint. Three from around mid-tower upwards, seven from		

Viewpoint 04 - Lehardan	
	approximately hub height and of the remaining six only the blade will be seen. The spatial extent within this view is minor due to distance.
<b>Cumulative Effects</b>	The proposed turbines will be seen in the midst of an already dense cluster of existing and proposed turbines. Consequently there is already multiple instances of visual stacking which will be added to. However, due to distance from the development the cumulative visual effects are greatly reduced.
<b>Sensitivity of Visual Receptor(s)</b>	<b>Medium</b> Includes viewers at designated views or landscapes. Viewers such as residents in medium proximity to the viewpoint; viewers at well-known heritage or popular tourist or recreational areas, viewers along scenic or tourist routes.
<b>Magnitude of Change</b>	<b>Low</b> - The proposals would be partially visible or visible at sufficient distance to be perceptible and result in a low level of change in the view and its composition and a low degree of contrast. The character of the view may be altered, but will remain similar to the baseline existing situation.
<b>Significance of Effect</b>	<b>Medium x Low = Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ A significant proportion of the proposed development is screened</li> <li>➤ Minor spatial extent of the proposed development within the view</li> <li>➤ Intervening distance (c.13 km)</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<b>Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.

Viewpoint 05 - Bunnaton			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from R268 regional road at a layby and Co. Donegal scenic view in the townland of Bunnaton</li> <li>➤ approximately 16.1 km north-west of the of the nearest turbine (T12)</li> <li>➤ Grid Reference E 226,932 N 437,121</li> <li>➤ No. of turbines visible: 15/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 20 South Fanad Uplands & Coast - Medium	<b>Visual Receptor(s) &amp; Sensitivity</b>	Designated Scenic View-Medium Motorised Traffic-Negligible
<b>Description of 'Do Nothing Scenario'</b>	<p>The view is taken from a Co. Donegal designated view at a viewing point just off the R268 regional road. From this elevated position above Fort Knockalla there are panoramic views down most of Lough Swilly and to the rugged peninsula across the inlet. Buncrana and its built-up surroundings are partially visible in the far distance in the centre of the image.</p> <p>There are two groups of existing and permitted turbines, one larger cluster seen to the rear of Buncrana and one smaller cluster to the left of the view.</p>		
<b>Description of Proposed View</b>	Although all fifteen turbines are theoretical visibible from this viewpoint in a an extended group. Approximately half the turbines have some to substantial parts screened by intervening landform. Due to the significant distance from the turbines, the spatial extent within the view is negligible.		

Viewpoint 05 - Bunnaton	
<b>Cumulative Effects</b>	The proposed turbines will be seen in front and to the left of an already dense cluster of existing and proposed turbines, however, there is some degree of visual separation between the proposed wind farm and the existing and permitted turbines. Some visual stacking between the proposed Glenard and existing and permitted turbines will occur. However, due to distance from the development the cumulative visual effects are greatly reduced.
<b>Sensitivity of Visual Receptor(s)</b>	<b>Medium</b> Includes viewers at designated views or landscapes. Viewers such as residents in medium proximity to the viewpoint; viewers at well-known heritage or popular tourist or recreational areas, viewers along scenic or tourist routes.
<b>Magnitude of Change</b>	<b>Low</b> - The proposals would be partially visible or visible at sufficient distance to be perceptible and result in a low level of change in the view and its composition and a low degree of contrast. The character of the view may be altered, but will remain similar to the baseline existing situation.
<b>Significance of Effect</b>	<b>Medium x Low = Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ Some of the proposed development is screened</li> <li>➤ Minor spatial extent of the proposed development within the view</li> <li>➤ Residential visual receptors are over 260m away and at a lower elevation</li> <li>➤ Intervening distance (c16 km)</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<b>Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.

Viewpoint 06 - Gresteel Beg (A2)			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from the A2 in the townland of Gresteel Beg north of the village of Gresteel</li> <li>➤ approximately 16 km south-east of the of the nearest turbine (T9)</li> <li>➤ Grid Reference: E 256,367 N 420,892</li> <li>➤ No. of turbines visible: 7/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 33 Lough Foyle Alluvial Plain - Low	<b>Visual Receptor(s) &amp; Sensitivity</b>	Residents - Medium Local Traffic- Negligible
<b>Description of 'Do Nothing Scenario'</b>	<p>This panoramic view was taken from the A2 to the north of Gresteel Village. In the foreground a series of grassed fields slope down towards Lough Foyle. Across the sea the rugged mountainous ridgeline on the Inishowen Peninsula can be seen.</p> <p>One large group of existing and permitted wind turbines can be seen in the centre of the view and four other wind turbines can be seen further to the right in two groups.</p>		
<b>Description of Proposed View</b>	Most of the proposed wind farm will be screened by landform. Only the upper parts of seven turbines will be seen to the right of the central group of permitted and existing turbines. Therefore, the spatial extent of the proposed wind farm within the view is minor.		

Viewpoint 06 – Greestel Beg (A2)	
<b>Cumulative Effects</b>	The proposed Glenard turbines expand the spatial extent of wind turbines from this location, but the turbines that will be seen in amongst the permitted and existing turbines appear as part of one windfarm as the differences in scale can not be discerned at this distance.
<b>Sensitivity of Visual Receptor(s)</b>	<b>Low</b> Includes viewers who may have some susceptibility to a change in view, such as those from views which are not designated but may have local recreational uses or those travelling along routes or at view which are considered moderately scenic.
<b>Magnitude of Change</b>	<b>Negligible</b> - Any change would only be barely distinguishable from the status quo “do-nothing scenario” in the surroundings. The composition and character of the view would be substantially unaltered, approximating to little or no change.
<b>Significance of Effect</b>	<b>Low x Negligible = Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ Adjacent residential visual receptor’s views of the proposed turbines are mostly screened by vegetation</li> <li>➤ Substantial part of the wind farm is screened by landform</li> <li>➤ Intervening distance (c16 km)</li> <li>➤ Expansive landscape able to absorb the proposed development</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<b>Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.

Viewpoint 07 – Carrickhugh (A2)			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from a layby and Carrickhue viewing point on the A2 in the townland of Carrickhugh</li> <li>➤ approximately 17.8 km south-east of the of the nearest turbine (T01)</li> <li>➤ Grid Reference: E 235,125 N 422,078</li> <li>➤ No. of turbines visible: 7/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 37 Roe Basin - Low to Medium	<b>Visual Receptor(s) &amp; Sensitivity</b>	Viewing Point - Medium Motorised Traffic- Negligible
<b>Description of ‘Do Nothing Scenario’</b>	<p>This panoramic view was taken from the a viewing point and picnic area off the west of Ballykelly. In the foreground a series of grassed fields slope down towards Lough Foyle. Across the sea the rugged mountainous ridgeline on the Inishowen Peninsula can be seen.</p> <p>One large group of existing and permitted wind turbines can be seen in the centre of the view and two smaller groups of wind turbines can be seen to the right of the view.</p>		
<b>Description of Proposed View</b>	Most of the proposed wind farm will be screened by landform. Only the upper parts of ten turbines will be seen to the right of the central group of permitted and existing turbines. Therefore, the spatial extent of the proposed wind farm within the view is minor.		

Viewpoint 07 - Carrickhugh (A2)	
<b>Cumulative Effects</b>	The proposed Glenard turbines expand the spatial extent of wind turbines from this location, but the turbines that will be seen in amongst the permitted and existing turbines appear as part of one windfarm as the differences in scale can not be discerned at this distance.
<b>Sensitivity of Visual Receptor(s)</b>	<b>Low</b> Includes viewers who may have some susceptibility to a change in view, such as those from views which are not designated but may have local recreational uses or those travelling along routes or at view which are considered moderately scenic.
<b>Magnitude of Change</b>	<b>Negligible</b> - Any change would only be barely distinguishable from the status quo “do-nothing scenario” in the surroundings. The composition and character of the view would be substantially unaltered, approximating to little or no change.
<b>Significance of Effect</b>	<b>Low x Negligible = Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ The nearest residential visual receptors are at a distance in excess of 380 metres from the viewpoint location</li> <li>➤ Intervening distance (c18 km)</li> <li>➤ Substantial part of the wind farm is screened by landform</li> <li>➤ Expansive landscape able to absorb the proposed development</li> <li>➤ The majority of visual receptors are likely to be traveling at speeds close to the speed limit of 100 kph along this straight stretch of road.</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<b>Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.

Viewpoint 08 - Tullyarvan			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from the L-1641-5 local road in the townland of Tullyarvan approximately 2km north of the town of Buncrana.</li> <li>➤ approximately 7.51 km west of the nearest turbine (T12)</li> <li>➤ Grid Reference: E 235,125 N 434,379</li> <li>➤ No. of turbines visible: 7/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 8 Buncrana Coast - Negligible to Low	<b>Visual Receptor(s) &amp; Sensitivity</b>	Residents-Medium
<b>Description of ‘Do Nothing Scenario’</b>	<p>This view was taken on the northern outskirts of Buncrana next to Glenview Housing Estate. In the centre of the view and to the left there are many scattered houses interspersed by fields and moorland. The background is formed by a ridgeline, Scalp Mountain is the highest point to the right of the view.</p> <p>There is a dense group of turbines in the centre of the view , gradually reducing in density to the right of the view.</p>		
<b>Description of Proposed View</b>	A substantial part of the proposed development will be screened by landform and buildings in the foreground from this location. Only the upper parts of ten turbines will be seen above the ridgeline and behind the buildings in the		

Viewpoint 08 – Tullyarvan	
	foreground. The spatial extent in the view is minor and furthermore from this location the Meenkeeragh turbines will be the most prominent turbines, not the proposed turbines.
<b>Cumulative Effects</b>	The proposed turbines will appear in front of the permitted Aught turbines, resulting in some visual stacking and the difference in the turbine heights may be perceived. However the proposed turbines are also seen next to the permitted Malkell turbines where, due to close similarity in scale and proportions, they appear as an extension to this permitted wind farm.
<b>Description of Alternative Dimensions (refer to Section 1.1 above)</b>	<ul style="list-style-type: none"> <li>➤ It is difficult for an observer to determine visual differences of this turbine envelope variation within this landscape view compared with other variations (i.e. Lowest Hub and Longest Blade &amp; Lowest Hub and Shortest Blade) without the aid of comparison wireframe graphic visuals.</li> <li>➤ In reality, it is unlikely that the difference between the differing turbine configurations will materially increase or decrease the visibility of these turbines from this viewpoint and will not alter the significance of visual effects reported in the following rows.</li> </ul>
<b>Sensitivity of Visual Receptor(s)</b>	<b>Medium</b> Includes viewers at designated views or landscapes. Viewers such as residents in medium proximity to the viewpoint; viewers at well-known heritage or popular tourist or recreational areas, viewers along scenic or tourist routes.
<b>Magnitude of Change</b>	<b>Low</b> - The proposals would be partially visible or visible at sufficient distance to be perceptible and result in a low level of change in the view and its composition and a low degree of contrast. The character of the view may be altered, but will remain similar to the baseline existing situation.
<b>Significance of Effect</b>	<b>Medium x Low = Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ Spatial extent of the proposed wind farm in the view is minor</li> <li>➤ Substantial part of the proposed development will be screened by landform and buildings</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<b>Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.

Viewpoint 09 – Illies <sup>1</sup>			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from the L-1731-2 local road in the townland of Illies</li> <li>➤ approximately 1.26 km north-west of the of the nearest turbine (T05)</li> <li>➤ Grid Reference E 242,883 N 433,730</li> <li>➤ No. of turbines visible: 15/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 5 Slieve Sneacht - Low to Medium	<b>Visual Receptor(s) &amp; Sensitivity</b>	Residents - Medium Motorised Traffic - - Negligible

<sup>1</sup> The baseline, Do-Nothing Scenario and Proposed views are shown at 100° in order to capture all 15 no. proposed turbines in one view. The 53.5° degree view has been split in two in order to show all 15 no. turbines at this view extent.

Viewpoint 09 – Illies <sup>1</sup>	
<b>Description of ‘Do Nothing Scenario’</b>	View looking up a slope covered in patches of coniferous plantation interupted by moorland. Beyond the nearest ridgeline the tops of distant mountains can just be seen.  There is one group of permitted turbines to the left of the image and a group of four existing turbines to the right of the view.
<b>Description of Proposed View</b>	All of the proposed Glenard turbines will be visible from this location, although the lower parts of three turbines will be hidden behind the ridgeline and the bases of most turbines are screened by forestry. The spatial extent within the view is substantial and there are three instances of visual stacking. However, from this viewpoint the turbine layout complies to the DoEHLG guidelines (2006) for Transitional Marginal landscape character type in terms of their location in the landscape in that the vast majority of the turbine blades do not cross the skyline and the layout is irregular.
<b>Cumulative Effects</b>	The proposed turbines will appear in front of the permitted Aught turbines to the left, resulting in some visual stacking and the difference in the turbine heights being perceived. To the right of the view the two most distant turbines will be seen alongside the existing Some turbines. Here they appear to be visually part of this existing wind farm due to the similarity in design and perceived scale.
<b>Description of Alternative Dimensions (refer to Section 1.1 above)</b>	<ul style="list-style-type: none"> <li>➤ It is difficult for an observer to determine visual differences of this turbine envelope variation within this landscape view compared with other variations (i.e. Lowest Hub and Longest Blade &amp; Lowest Hub and Shortest Blade) without the aid of comparison wireframe graphic visuals.</li> <li>➤ In reality, it is unlikely that the difference between the differing turbine configurations will materially increase or decrease the visibility of these turbines from this viewpoint and will not alter the significance of visual effects reported in the following rows.</li> </ul>
<b>Sensitivity of Visual Receptor(s)</b>	<b>Medium</b> Includes viewers who may have some susceptibility to a change in view, such as those from residential dwellings, views which are not designated but may have local recreational uses or those travelling along routes or at view which are considered moderately scenic.
<b>Magnitude of Change</b>	<b>High</b> - Substantial change, where the proposals would result in large-scale, prominent or very prominent change, leading to substantial obstruction of existing view or complete change in character and composition of the baseline though removal of key elements or addition of uncharacteristic elements which may or may not be visually discordant. This includes viewpoints where the proposed development is fully or almost fully visible over a wide extent, at close proximity to the viewer.
<b>Significance of Effect</b>	<b>Medium x High = Moderate (EPA, 2017)</b> An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends.
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ The location near the ridge, layout, spacing and taller turbine height in this relatively open and visually extensive landscape are in accordance with the siting and design guidelines in the DoEHLG guidelines (2006) for Transitional Marginal landscape character type.</li> <li>➤ Expansive landscape able to absorb the proposed development</li> </ul>

Viewpoint 09 – Illies <sup>1</sup>	
<b>Residual Effect (incl. mitigating factors)</b>	<b>Moderate (EPA, 2017)</b> An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends.

Viewpoint 10 – Carrowmore			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from R242 regional road in the townland of Carrowmore</li> <li>➤ approximately 17 km north of the of the nearest turbine (T04)</li> <li>➤ Grid Reference: E 247,017 N 449,996</li> <li>➤ No. of turbines visible: 4/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 1 Malin Coast – Medium	<b>Visual Receptor(s) &amp; Sensitivity</b>	Residents- Medium Motorised Traffic- Negligible
<b>Description of ‘Do Nothing Scenario’</b>	<p>This view looks along the Malin Bridge to low lying land covered in fields and tree lines. The distant backdrop is formed by a rugged extensive ridgeline finishing in Raghtin More Mountain to the right of the view.</p> <p>There three groups of existing and permitted wind turbines turbines can be seen on the distant ridgeline. One larger group of wind turbines in the centre and two smaller groups either side.</p>		
<b>Description of Proposed View</b>	<p>The vast majority of the proposed wind farm will be screened by landform. Only the upper parts of three turbines will be seen to the right of the smaller group of permitted and existing turbines to the right of the view. Therefore, the spatial extent of the proposed wind farm within the view is very minor due to the great distance.</p>		
<b>Cumulative Effects</b>	<p>The proposed Glenard turbines expand the spatial extent of wind turbines from this location very slightly, but will not be seen amongst the permitted and existing turbines. Due to the great distance cumulative effects will be imperceptible.</p>		
<b>Sensitivity of Visual Receptor(s)</b>	<p><b>Medium</b> Includes viewers who may have some susceptibility to a change in view, such as those from views which are not designated but may have local recreational uses or those travelling along routes or at view which are considered moderately scenic.</p>		
<b>Magnitude of Change</b>	<p><b>Negligible</b> - Any change would only be barely distinguishable from the status quo “do-nothing scenario” in the surroundings. The composition and character of the view would be substantially unaltered, approximating to little or no change.</p>		
<b>Significance of Effect</b>	<p><b>Medium x Negligible = Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.</p>		
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ Substantial proportion of the proposed development is screened</li> <li>➤ Very limited spatial extent of the proposed development within the view</li> <li>➤ Expansive landscape able to absorb the proposed development</li> <li>➤ Intervening distance (c17 km)</li> </ul>		



Viewpoint 10 - Carrowmore	
<b>Residual Effect (incl. mitigating factors)</b>	<b>Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.

Viewpoint 11 - Gortcally (R247)			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from R247 regional road at a Co. Donegal scenic view in the townland of Gortcally</li> <li>➤ approximately 17.56 km west of the of the nearest turbine</li> <li>➤ Grid Reference: E 224,333 N 432,819</li> <li>➤ No. of turbines visible: 15/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 20 South Fanad Uplands & Coast - Medium	<b>Visual Receptor(s) &amp; Sensitivity</b>	Motorised Traffic - Negligible Scenic View - Medium
<b>Description of 'Do Nothing Scenario'</b>	<p>View across extensive moorland in the foreground and the regional road to the right. The rugged ridgelines of Inishowen can be seen in the distance on the horizon.</p> <p>There is a large group of existing and permitted turbines in the centre of the view and two smaller groups to the left of the view.</p>		
<b>Description of Proposed View</b>	<p>Although all fifteen turbines are theoretical visible from this viewpoint in an extended group, it is unlikely that they will be very noticeable as they will be a very small element of the landscape. Approximately half the turbines have some to substantial parts screened by intervening landform. Due to the significant distance from the turbines, the spatial extent within the view is negligible.</p>		
<b>Cumulative Effects</b>	<p>The proposed turbines will be seen in front and to the left of an already dense cluster of existing and proposed turbines. Some visual stacking between the proposed Glenard and permitted turbines will occur. However, due to distance from the development the cumulative visual effects are greatly reduced.</p>		
<b>Sensitivity of Visual Receptor(s)</b>	<p><b>Medium</b> Includes viewers at designated views or landscapes. Viewers such as residents in medium proximity to the viewpoint; viewers at well-known heritage or popular tourist or recreational areas, viewers along scenic or tourist routes.</p>		
<b>Magnitude of Change</b>	<p><b>Low</b> - The proposals would be partially visible or visible at sufficient distance to be perceptible and result in a low level of change in the view and its composition and a low degree of contrast. The character of the view may be altered, but will remain similar to the baseline existing situation.</p>		
<b>Significance of Effect</b>	<p><b>Medium x Low= Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.</p>		
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ Parts of the proposed turbines are screened</li> <li>➤ Minor spatial extent of the proposed development within the view</li> <li>➤ Expansive landscape able to absorb the proposed development</li> <li>➤ Residential visual receptors are over 480m away and at a lower elevation</li> <li>➤ Intervening distance (c18 km)</li> </ul>		

Viewpoint 11 – Gortally (R247)	
<b>Residual Effect (incl. mitigating factors)</b>	<b>Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.

Viewpoint 12 – Tullydush Upper			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from the L-7241-2 local road in the townland of Tullydush Upper</li> <li>➤ approximately 2.5 km west of the of the nearest turbine</li> <li>➤ Grid Reference: E 239,442 N 430,090</li> <li>➤ No. of turbines visible: 12/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 9 Scalp Mountain - Low	<b>Visual Receptor(s) &amp; Sensitivity</b>	Residents - Medium Local Traffic- -Negligible
<b>Description of ‘Do Nothing Scenario’</b>	<p>View looking across a valley up a slope covered in coniferous plantation rising to a near ridgeline. Beyond there views to a more distant ridgeline to the right of the image.</p> <p>Existing and permitted turbines are evenly spaced on the near ridgeline and there is a more distant denser group of turbines on the more distant ridgeline.</p>		
<b>Description of Proposed View</b>	<p>Landform will screen three turbines entirely and the lower parts of four turbines substantially. There is visual stacking of two groups of turbines and approximately a third of the turbines’ blades cross the skyline. The irregular spacing and appearance of staggered linear layout is in keeping with the DoEHLG (2006) and Draft DoHPLG (2019) guidelines for Transitional Marginal landscape character type. The spatial extent of the proposed wind farm within the view is moderate to significant and is in balance with its surroundings.</p>		
<b>Cumulative Effects</b>	<p>There is visual overlap with the existing Some and Crockahenny turbines and the proposed turbines to the left, but the visual incongruity here is only moderate in terms of difference in height and design of the two wind energy developments. To the right the proposed turbines will be seen in front of the permitted Aught turbines, here the difference in scale visually reads as distance between the proposed and permitted turbines creating a sense of visual separation. Visual stacking occurs between proposed and cumulative turbines in a few instances.</p>		
<b>Description of Alternative Dimensions (refer to Section 1.1 above)</b>	<ul style="list-style-type: none"> <li>➤ It is difficult for an observer to determine visual differences of this turbine envelope variation within this landscape view compared with other variations (i.e. Lowest Hub and Longest Blade &amp; Lowest Hub and Shortest Blade) without the aid of comparison wireframe graphic visuals.</li> <li>➤ In reality, it is unlikely that the difference between the differing turbine configurations will materially increase or decrease the visibility of these turbines from this viewpoint and will not alter the significance of visual effects reported in the following rows.</li> </ul>		
<b>Sensitivity of Visual Receptor(s)</b>	<p><b>Low</b> Includes viewers who may have some susceptibility to a change in view, such as those from views which are not designated but may have local recreational uses or those travelling along routes or at view which are considered moderately scenic.</p>		

Viewpoint 12 – Tullydush Upper	
<b>Magnitude of Change</b>	<b>Medium</b> - The change in the view may involve partial obstruction of existing view or partial change in character and composition of the baseline through the introduction of new elements or removal of existing elements. Likely to occur at locations where the development is partially visible over a moderate or medium extent, and which are not in close proximity to the development. Change may be readily noticeable but not substantially different in scale and character from the surroundings and wider setting.
<b>Significance of Effect</b>	<b>Low x Medium = Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ Irregular spacing and appearance of staggered linear layout is in keeping with the DoEHLG (2006) and Draft DoHPLG (2019) guidelines for Transitional Marginal landscape character type.</li> <li>➤ Limited local traffic</li> <li>➤ Expansive landscape able to absorb the proposed development</li> </ul>
<b>Residual Effect (incl. mitigating factors)</b>	<b>Slight (EPA, 2017)</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.

Viewpoint P13 – Kilfinnan, Derry City			
<b>Viewpoint Description &amp; Details</b>	<ul style="list-style-type: none"> <li>➤ View from Erosmore Drive in Derry City in the townland of Kilfinnan</li> <li>➤ approximately 14.24 km south of the of the nearest turbine (T15)</li> <li>➤ Grid Reference: E 245,966 N 416,786</li> <li>➤ No. of turbines visible: 2/15</li> </ul>		
<b>LCA &amp; Sensitivity to Wind Farm Development</b>	LCA 31 Burngibbagh and Drumahoe - Negligible	<b>Visual Receptor(s) &amp; Sensitivity</b>	Residents-Medium
<b>Description of ‘Do Nothing Scenario’</b>	<p>This view was taken in a residential area of Derry City. To the right of the view the grass open space is visible edged by mature and semi-mature trees screening houses behind. In the centre of the view and to the left houses are seen in the foreground partially screening views of the lower parts of the city in the middleground. A mountainous ridgeline forms the background to this view.</p> <p>A line of existing and permitted wind turbines can be seen on the ridgeline, but is partially screened by trees in the foreground.</p>		
<b>Description of Proposed View</b>	<p>The vast majority of the proposed wind farm will be screened by landform. Only the blades of two turbines will be seen to the left of the permitted and existing turbines. Therefore, the spatial extent of the proposed wind farm within the view is very minor due to the great distance.</p>		
<b>Cumulative Effects</b>	<p>The two blade tips will be seen to the left of the line of turbines with sufficient separation from the permitted and existing turbines, hence cumulative visual effects are not significant.</p>		
<b>Sensitivity of Visual Receptor(s)</b>	<p><b>Medium</b> Includes viewers at designated views or landscapes. Viewers such as residents in medium proximity to the viewpoint; viewers at well-known heritage or popular tourist or recreational areas, viewers along scenic or tourist routes.</p>		
<b>Magnitude of Change</b>	<p><b>Negligible</b> - Any change would only be barely distinguishable from the status quo “do-nothing scenario” in the surroundings. The composition and character of the view would be substantially unaltered, approximating to little or no change.</p>		
<b>Significance of Effect</b>	<p><b>Medium x Negligible = Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.</p>		
<b>Mitigation Factors</b>	<ul style="list-style-type: none"> <li>➤ Very limited spatial extent of the proposed development within the view</li> <li>➤ Expansive landscape able to absorb the proposed development</li> <li>➤ Intervening distance (c14.5 km)</li> </ul>		
<b>Residual Effect (incl. mitigating factors)</b>	<p><b>Imperceptible (EPA, 2017)</b> An effect capable of measurement but without significant consequences.</p>		