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LANDSCAPE CHARACTER AREA (LCA) ASSESSMENT TABLES

This appendix comprises an impact assessment addressing the landscape effects of the Proposed Project upon each designated Landscape Character Area (LCA) scoped in for assessment in Chapter 13 of this EIAR; please refer to Chapter 13, Section 13.4.2 LCAs & Preliminary Analysis.

The impact assessment for each LCA is set out in its own table below, organised by county. In the tables, the term "the site" refers to the Proposed Wind Farm site and the discussion of theoretical visibility in each LCA refers to Zone of Theoretical Visibility (ZTV) mapping as outlined in the main chapter, Section 13.3 Visibility of the Proposed Wind Farm.

It is recommended that the impact assessments in this appendix are read in conjunction with the following figures in the chapter:

- > Figure 13-8: Designated Landscape Character Areas,
- Figure 13-9: ZTV and Landscape Character Areas.

The above-cited map illustrates the boundary of each LCA and is overlain by the ZTV extending to the 15km LCA Study Area for the assessment of effects on designated LCAs; the brief and full methodologies for determining the LCA Study Area boundary are provided respectively in Section 13.2.2 Scope and Definition of LVIA Study Area of the main chapter and in Section 1.4 of the same name in *Appendix 13-1: LVIA Methodology*.

Regarding the "Significance of Effect" ratings in the tables below: The definition of classification is taken from the "Guidelines on the Information to be Contained in Environmental Impact Assessment Reports" of the Environmental Protection Agency of Ireland (EPA) (2022); refer to Appendix 13-1, Section 1.7.5 Landscape Effects Assessment Matrix.



County Galway

In the tables of this appendix, reference is made to the Landscape Character Assessment of County Galway which forms *Appendix 4* of the Galway County Development Plan (GCDP) 2022-2028, and the County Galway Local Authority Renewable Energy Strategy (LARES).

The Landscape Character Assessment contained in *Appendix 4* of the GCDP defines and classifies the landscape into Landscape Character Units (LCUs) according to the following landscape sensitivity classifications:

- Iconic: Unique Landscape with high sensitivity to change,
- > Special: High sensitivity to change,
- High: Elevated sensitivity to change,
- Low: Unlikely to be adversely affected by change.

The LARES classifies landscape zoning for suitability to wind energy development that is based on different geographical boundaries than the LCU character area boundaries. Therefore, a single LCU may contain multiple areas of different wind energy zoning. The wind energy zoning categories in the LARES are:

- > Strategic Area,
- > Acceptable in Principle,
- > Open to Consideration,
- > Generally to be Discouraged,
- Not Normally Permissible.



LCU-5e: North River Clare Basin

Galway LCU 5e– North River Clare Basin Unit		
Map Ref:	LCU-5e	
Distance from site to Nearest/ Furthest Area of LCU	All 9 no. proposed turbines are located within this LCU. This LCU extends beyond the LCA Study Area, extending 6.5km to the south of the nearest proposed turbine, and 13.1km to the west.	
LCU Key Characteristics	 "Extensive, largely level plain with low enclosure. A long-settled working landscape of large regular stone-walled fields. Extensive areas of bogs in east. Transition zone from areas to east." Cited from GCDP 2022-228 Appendix 4 Landscape Character Assessment.	
Landscape Sensitivity to Wind Farm Development	Sensitivity: Low This LCU is located within the landscape character type "Northern Galway Complex" which has a rating of Low sensitivity in the GCDP, however it is noted in Appendix 4 that the "open countryside offers frequent extensive panoramic views from local high points." The LARES designates large areas of "Open to Consideration" and "Generally to be Discouraged" in this LCU, including within the Proposed Wind Farm site itself. There are also areas designated as "Acceptable in Principle" located in close proximity to the proposed turbines. Taking into consideration the designation within the GCDP, the landscape sensitivity is determined to be Low.	
Visibility of the Proposed Turbines within the LCU	As indicated by the ZTV, there is primarily full theoretical visibility within 5km of the nearest turbine. Beyond 5km, the majority of the LCU has theoretical visibility of the proposed turbines with some large patches of no theoretical visibility located beyond 10km southwest and north of the proposed turbines. Actual on-the-ground visibility assessed during site visits determined that there would be more limited visibility in parts of the LCU beyond 5km from the proposed turbines, where the flat nature of the topography and vegetation in the landscape limit views of the proposed turbines. While there will be locations from beyond 5km where the turbines will be visible, at that distance and within the flat landscape of the LCU, the proposed turbines will appear as very modest background elements. Viewpoints VP01, VP02, VP03, VP05, VP07, VP09, VP10, VP12, VP14 and VP15 are located within this LCU.	
Cumulative Context	The existing Cloonlusk turbines (2 no. in total) are located within this LCU, approx. 7.8km from the nearest turbine of the Proposed Project. There are intermittent views of these turbines within parts of the LCU in close proximity (e.g. within approx. 3km of the Cloonlusk turbines). In addition, the permitted Cloonascragh Wind Turbine is located to the northwest of the Cloonlusk turbines, located approximately 10.5km west from the nearest turbine of the Proposed Project.	

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The topography in this LCU is gently undulating, with small intervening rises in elevations and roadside vegetations serving to restrict combined views of both wind farms. The scale of the LCU and the screening factors noted, including the distance between the two developments mean that wind turbines will not be a dominant feature of this LCU.

The proposed Clonberne Wind Farm is also located within this LCU. This proposal includes 11 no. turbines located approximately 5.3km north of the nearest turbine of the Proposed Project. In relation to the addition of the Proposed Project in an uncertain scenario where the proposed Clonberne Wind Farm is submitted to planning, consented, and constructed, there are likely to be some cumulative effects on landscape character arising. This includes views of turbines becoming common over an area including the area in proximity (within 5km) to the proposed Cooloo turbines combined with views in the area surrounding the proposed Clonberne Wind Farm, which is located between 5-9km north of the nearest turbine of the proposed Cooloo turbines. This will result in a larger area within this part of the LCU where turbines will be visible than if one of these developments were constructed by themselves. This larger cumulative area of visibility of turbines (including the Proposed Project and the proposed Clonbern Wind Farm) will be located in the northeastern part of this LCU. These cumulative effects in an uncertain scenario have been incorporated into the Magnitude of Change determination below.

Magnitude of Change

Moderate: "A more limited loss of or change to landscape features over a medium extent which will result in some change to landscape features and aesthetics. Could include the addition of some new uncharacteristic features or elements that would lead to the potential for change in landscape character in a localised area or part of a landscape character area. Would include moderate effects on the overall landscape character that do not affect key characteristics. The effects could be long to medium term and/or partially reversible."

Refer to Section 1.7.4 Magnitude of Landscape Change in *Appendix 13-1:* LVIA Methodology.

Significance of Effect

Low × Moderate = Minor = "Slight" (EPA, 2022)

"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."

Mitigating Factors

- There are large parts of this LCU where there will be no visibility of the proposed Cooloo turbines, or where the proposed Cooloo turbines will only be perceived as modest background features, and so the highest effects on landscape character will be localised to parts of the LCU in close proximity to the Proposed Wind Farm site (i.e. within 5km).
- The Proposed Wind Farm site is located within a large area of agricultural fields with areas of cutover bog and commercial forestry within this LCU, providing separation from sensitive landscape features (e.g. Levally Lough).
- The Proposed Wind Farm site is located in the east of this LCU which is noted to have extensive areas of bog to the east. Within the overall LCU, the areas of cutover bogland are the least sensitive parts of the LCU in relation to wind farm development. The proposed Cooloo turbines are sited within the least sensitive part of the overall LCU.



Residual Significance of Effect (incl. mitigating factors) "Slight" (EPA, 2022)

"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."



LCU-5b: Castlegar Basin

Galway LCU 5b – Castlegar Basin		
Map Ref:	LCU-5b	
Distance from site to Nearest/ Furthest Area of LCU	At its closest point, this LCU is located approximately 2.3km east of the nearest proposed turbine, T8. This LCU extends beyond the 15km LCA Study Area, extending approximately 29km southeast from the nearest proposed turbine.	
LCU Key Characteristics	 "Extensive, largely level plain with low enclosure. A long-settled working landscape of large regular fields with stone wall boundaries. Enclosed by areas of bog". Cited from GCDP 2022-228 Appendix 4 Landscape Character Assessment. 	
Landscape Sensitivity to Wind Farm Development	Sensitivity: Low This LCU is located within the landscape character type "Northern Galway Complex" which has a rating of Low sensitivity in the GCDP, however it is noted in Appendix 4 that the "open countryside offers frequent extensive panoramic views from local high points." The LARES designates large areas of "Acceptable in Principle" and "Open to Consideration" in this LCU. Taking into consideration the designation within the GCDP, the Landscape Sensitivity is determined to be Low.	
Visibility of the Proposed Turbines within the LCU	As indicated on the ZTV, there are large areas of full theoretical visibility within 10km of the nearest proposed turbine. Beyond 10km, the majority of the LCU has theoretical visibility of the proposed turbines with some larger patches of no theoretical visibility. Actual on-the-ground visibility assessed during site visits determined that there would be more limited visibility in parts of the LCU beyond 5km from the proposed turbines, where the flat nature of the topography and vegetation in the landscape limit views of the proposed turbines. Considering the distance of the majority of this LCU from the Proposed Wind Farm, the proposed turbines will only be visible in the background of the view, perceived as modest background features. Viewpoints VP04 and VP13 are located in this LCU.	
Cumulative Context	There are no existing, permitted or proposed windfarms located within this LCU. The proposed Clonberne Wind Farm is located 4km northwest of the closest part of this LCU, with views of these proposed turbines likely to occur frequently from locations within 5km of these turbines from locations in this LCU. A small area of this LCU is located within 5km of both the proposed Cooloo turbines and the proposed Clonberne Wind Farm. Considering the likely limited locations where views of the turbines of the Proposed Project will be visible, or where they will appear as greater than modest background features within views, there is limited potential for cumulative effects to arise as a result of the addition of the Proposed Project, in relation to the combined or in succession views of the proposed Clonberne Wind Farm and the Proposed Project. There is potential for cumulative landscape effects arising in this LCU as a result of these two proposed wind farms being intermittently visible in the northwest of this LCU.	



Magnitude of Change	Moderate: "A more limited loss of or change to landscape features over a medium extent which will result in some change to landscape features and aesthetics. Could include the addition of some new uncharacteristic features or elements that would lead to the potential for change in landscape character in a localised area or part of a landscape character area. Would include moderate effects on the overall landscape character that do not affect key characteristics. The effects could be long to medium term and/or partially reversible." Refer to Section 1.7.4 Magnitude of Landscape Change in Appendix 13-1: LVIA Methodology.
Significance of Effect	Low × Moderate = Minor = "Slight" (EPA, 2022) "An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."
Mitigating Factors	 There are moderate areas within this LCU of no theoretical visibility of the turbines of the Proposed Project and visibility will be intermittent where it does occur. Considering the distance of the majority of this LCU from the Proposed Wind Farm site, the proposed turbines will be viewed in the background, perceived as modest background features.
Residual Significance of Effect (incl. mitigating factors)	"Slight" (EPA, 2022) "An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."



LCU-5c: Springfield Basin Unit

Galway LCU 5c – Springfield Basin Unit		
Map Ref:	LCU-5c	
Distance from site to Nearest/ Furthest Area of LCU	At its closest point, this LCU is located approximately 6.9km north of the nearest proposed turbine, T7. This LCU extends beyond the 15km LCA Study Area, extending approximately 27km northeast from the nearest proposed turbine.	
LCU Key Characteristics	> "Working landscape of medium-large regular fields interspersed with lakes, large bogs and forestry."	
	Cited from GCDP 2022-228 Appendix 4 Landscape Character Assessment.	
Landscape Sensitivity to Wind Farm Development	Sensitivity: Low This LCU is located within the landscape character type "Northern Galway Complex" which has a rating of Low sensitivity in the GCDP, however it is noted in Appendix 4 that the "open countryside offers frequent extensive panoramic views from local high points." The LARES designates large areas of "Acceptable in principle" and "Open to Consideration" in this LCU. Taking into consideration the designations within the GCDP, the landscape sensitivity is determined to be Low.	
Visibility of the Proposed Turbines within the LCU	As indicated by the ZTV, there is primarily full theoretical visibility of the proposed turbines within the west part of this LCU. There are a greater number of areas of no theoretical visibility within 10km of the proposed turbines, similarly beyond 10km along the western borders of this LCU within the east part of this LCU that falls within the LCU Study Area. Actual on-the-ground visibility assessed during site visits determined that there would be more limited visibility in parts of the LCU beyond 5km from the proposed turbines, where the flat nature of the topography and vegetation in the landscape limit views of the proposed turbines. Hence, there may be some intermittent long-range views of these turbines from local high points within this LCU.	
Cumulative Context	The permitted Clooncon East turbine is located within this LCU, approximately 16.3km northeast of the nearest proposed turbine (T9) of the Proposed Project. The topography in this LCU is gently undulating, with small intervening hills and rises in elevations serving to restrict combined views of both wind farms. The scale of the LCU and the screening factors noted, including the distance between the two developments mean that wind turbines will not be a dominant feature of this LCU. The proposed Clonberne Wind Farm is located 0.1km from this from this LCU. There will be more theoretical visibility of the proposed Clonberne Wind Farm from this LCU given its close proximity. Combined views of the proposed Cooloo turbines and the proposed Clonberne Wind Farm from this LCU will be sparse, and there will be background views of these turbines in combination from a limited number of locations. The cumulative effects on landscape character that do arise have been incorporated into the determination of the magnitude of change made below.	



Magnitude of Change	Moderate: "A more limited loss of or change to landscape features over a medium extent which will result in some change to landscape features and aesthetics. Could include the addition of some new uncharacteristic features or elements that would lead to the potential for change in landscape character in a localised area or part of a landscape character area. Would include moderate effects on the overall landscape character that do not affect key characteristics. The effects could be long to medium term and/or partially reversible." Refer to Section 1.7.4 Magnitude of Landscape Change in Appendix 13-1: LVIA Methodology.
Significance of Effect	Low × Moderate = Minor = "Slight" (EPA, 2022) "An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."
Mitigating Factors	 There are large areas within this LCU of no theoretical visibility of the turbines of the Proposed Project and visibility will be intermittent where it does occur. Considering the distance of the majority of this LCU from the Proposed Wind Farm site, the proposed turbines will be perceived as modest background features within views when visible.
Residual Significance of Effect (incl. mitigating factors)	"Not Significant" (EPA, 2022) "An effect which causes noticeable changes in the character of the environment but without significant consequences."



1.1.4 LCU-6b: Southern River Clare Basin Unit

Galway LCU 6b – Southern River Clare Basin Unit	
Map Ref.	LCU-6b
Distance from site to Nearest/ Furthest Area of LCU	At its closest point, this LCU is located approximately 4.2km southwest of the nearest proposed turbine, T1. This LCU extends beyond the 15km LCA Study Area, extending approximately 33km southwest from the nearest proposed turbine.
LCU Key Characteristics	 "Undulating long-occupied working landscape with high levels of settlement. Large regular fields and numerous parkland remnants. Extensive wetland areas near Lough Corrib. Low enclosure except for localised areas of mature parkland trees." Cited from GCDP 2022-228 Appendix 4 Landscape Character Assessment.
Landscape Sensitivity to Wind Farm Development	Sensitivity: Low This LCU is located within the landscape character type "Central Galway Complex" which has a rating of Low sensitivity in the GCDP, however it is noted in Appendix 4 that the "open countryside offers frequent extensive panoramic views from local high points." The LARES designates large areas of "Open to Consideration" and "Generally to be Discouraged" in this LCU. Taking into consideration the designation within the GCDP, the landscape sensitivity is determined to be Low.
Visibility of the Proposed Turbines within the LCU	As indicated on the ZTV, there is mainly full theoretical visibility within 10km of the nearest proposed turbine. The local elevated vantage points around Knockroe Hill create a small patch of area with no theoretical visibility beginning within 8km of the nearest proposed turbine. This area of no theoretical visibility extends beyond 10km into the LCU occupying a larger area of no theoretical visibility. Beyond 10km, the majority of the north area of this LCU has theoretical visibility of the proposed turbines with some small patches of no theoretical visibility. Actual on the ground visibility, assessed during site visits, determined limited visibility in parts of the LCU beyond 10km from the proposed turbines, where the flat nature of the topography and vegetation in the landscape limit views of the proposed turbines. Considering the distance of the majority of this LCU from the Proposed Wind Farm site, the proposed turbines will be viewed in the background, perceived as modest background features. Viewpoint VP11 is located within this LCU.
Cumulative Context	There is one existing wind turbine, the Park Athenry Wind Turbine, located within this LCU 18.8km south of the nearest proposed turbine T1, located just north of Athenry. This singular turbine has a low tip height and is at sufficient distance as to not arise cumulative landscape effects. There is the existing Clonlusk Wind Farm within the neighbouring LCU-5e, with 2 no. turbines located 1.3km north of this LCU. A small hill located in the north of this LCU, combined with the relatively flat topography that takes



	advantage of screening in the landscape, limiting views of the Clonlusk Wind
	Farm from the more southerly parts of this LCU within the LCA Study Area. Combined visibility of the proposed Cooloo turbines and the Clonlusk Wind Farm is most likely to occur within the north region of this LCU. Given the close proximity of this LCU, there may be cumulative landscape effects.
	The permitted Cloonascragh Wind Turbine is also located within the neighbouring LCU-5e, located 3.2km north of this LCU. Visibility of this proposed turbine will be similar to the Clonlusk Wind Farm, where views will be limited to the north region of this LCU. The permitted Cloonascragh Wind Turbine is located at a greater setback distance from both this LCU and the proposed Cooloo turbines and may result in minor cumulative landscape effects.
	The proposed Clonberne Wind Farm is located 11.7km northwest to the closest part of this LCU. There may be some intermittent long-range views of these turbines from local high points within this LCU. Combined views of the proposed Cooloo turbines and the proposed Clonberne Wind Farm from this LCU will be sparse, and there will be background views of these turbines in combination from a limited number of locations.
Magnitude of Change	Slight: "A more limited loss of or change to landscape features over a medium extent which will result in some change to landscape features and aesthetics. Could include the addition of some new uncharacteristic features or elements that would lead to the potential for change in landscape character in a localised area or part of a landscape character area. Would include moderate effects on the overall landscape character that do not affect key characteristics. The effects could be long to medium term and/or partially reversible."
	Refer to Section 1.7.4 Magnitude of Landscape Change in <i>Appendix 13-1:</i> LVIA Methodology.
Significance of Effect	Low × Moderate = Minor = "Slight" (EPA, 2022)
Effect	"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."
Mitigating Factors	 There are large areas within this LCU of no theoretical visibility of the proposed turbines and visibility will be intermittent where it does occur. Considering the distance of the majority of this LCU from the Proposed Wind Farm site, the proposed turbines will be perceived as modest background features within views when visible.
Residual	"Slight" (EPA, 2022)
Significance of Effect (incl. mitigating factors)	"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."