

Appendix 3: Hill of Uisneach Technical Report

Umma More Renewable
Energy Development, Co.
Westmeath





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Prepared By: **MKO
Tuam Road
Galway
Ireland
H91 VW84**



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EXECUTIVE SUMMARY

The supplementary baseline information and assessment detailed in this Technical Report provides greater clarity in relation to the topics of uncertainty cited by the An Bord Pleanála Inspector and in submissions made on the planning application for the Proposed Development. This Technical Report gives appropriate consideration to relevant UNESCO Guidance, details the consultation that has taken place with Westmeath County Council, UNESCO specialists, and the DoHLGH, and the methodology for further assessment. Overall, this Technical Report provides further detailed assessment of the receiving environment and the likely significant effects of the Proposed Development on the Hill of Uisneach, facilitating the competent authority's EIA of the Proposed Development.

The impact assessments carried out in this Technical Report comprise a detailed analysis of additional mapping, modelling, drone imagery and photomontage visualisations which provide greater clarity on the likely impact of the Proposed Development on the sensitive landscape, visual and cultural heritage characteristics and attributes encompassed by the Hill of Uisneach and its assemblage of monuments.

The Hill of Uisneach, a nationally significant archaeological landscape representing ceremonial, burial and settlement activity over several millennia is a sacred and historic site in Ireland renowned as an ancient meeting place and a place of assembly in the centre of the country. The characteristics, sensitivity and cultural significance of the Hill have been explored in detail in the context of its current status forming part of the Royal Sites of Ireland bid for UNESCO World Heritage Status, and in terms of its potential interrelationship with other sites and monuments in the wider landscape. The panoramic views experienced from the summit of the Hill of Uisneach and the wider adjoining hinterland are integral to the setting and existing character of the Hill. This assessment takes cognisance of how setting contributes to this cultural significance and how the Proposed Development may affect such sensitivities. The assessment is founded on an analysis of the sensitivity and value of the asset, in this case demonstrated to be of exceptional or very high significance, and consideration of the magnitude of the potential impact.

Key Findings – Landscape, Visual and Cultural Heritage Impacts

- The proposed turbines will be visible from vantage points on the western aspect of the Hill of Uisneach including the Cat Stone monument.
- No visibility will occur to the east of the skyline ridge near the summit of the Hill of Uisneach;
- Visibility of the proposed turbines will be limited from the 360° panoramic view at St Patrick's Bed and will not impact the key scenic and landscape sensitivities of the protected views at this location;
- There is no evidence that the proposed turbines have the potential to disturb or interrupt any visual or cultural links between the Hill of Uisneach and the wider archaeological landscape, or equally, they will not disturb or compete with any prominent or sensitive views of the Hill of Uisneach itself.
- At 8.8 to 10.7km from the summit, the proposed turbines are seen within a distant working landscape and appear in a linear arrangement with even spacing and no visual stacking, resulting in a visually coherent development.
- The panoramic views from the Hill of Uisneach are wide and expansive and the proposed turbines are effectively accommodated within the landscape.

Within the wider setting of the Hill of Uisneach, monuments such as Knockastia, Frewin Hill and Crogan Hill contribute to the broader ritual, mythological and settlement landscape. These wider views and the relationship with and the intervisibility with these and other significant sites in the locality will not be affected by the Proposed Development.

The Proposed Development is located outside the 'Core' and 'Buffer Areas' identified within the Westmeath County Development Plan (2021-2027). At 8.8km to the west (closest turbine location), the

proposed turbines will occupy a small portion of the panoramic view. At this distance, the proposed turbines while visible from the western slopes of the Hill, with limited visibility from the western summit, will not dominate in the view nor be visually disruptive. Equally, the proposed turbines will not compete with the elevated location of the Hill of Uisneach as the dominant feature in the landscape.

While some visibility of the proposed turbines is expected, the effects are not considered ‘Significant’ in the context of Landscape and Visual Impact Assessment (LVIA) of wind energy developments in Ireland. Residual impacts are classed as ‘Moderate’ and ‘Long-Term’ for the most sensitive viewpoints, in line with EPA, 2022 guidance.

The supplementary information and assessments in this Technical Report provide greater clarity on the likely effects of the Proposed Development on the Hill of Uisneach. The conclusions remain consistent with the original EIAR: while ‘Moderate’ and ‘Long-Term’ effects are likely, no significant impact is expected on the Hill’s key landscape, visual, or cultural heritage sensitivities. In the context of national climate policy and evolving character of the Irish working landscape, the Proposed Development is considered acceptable and in alignment with emerging baseline trends.

It is noteworthy that the potential effect of the Proposed Development as stated above, is reversible and will only last for the duration of the operational lifetime of the proposed turbines, in this case 30 years. It is considered that the potential effect to the Hill of Uisneach, the monuments located thereon, and its wider setting will be reversed once the proposed turbines are removed after their lifetime of operation.

1. INTRODUCTION

This Technical Report specifically responds to issues raised in submissions made on the proposed Umma More Renewable Energy Development (hereafter the ‘Proposed Development’) planning application, most notably the submission made by the Department of Housing, Local Government and Heritage, on the potential for the Proposed Development to give rise to landscape, visual, archaeological and cultural heritage impacts on the Hill of Uisneach (also referred to as ‘Uisneach’ and ‘the Hill’).

In the preparation of this Technical Report, the EIAR Landscape & Visual Impact Assessment (LVIA) specialist and EIAR Archaeological and Cultural Heritage Impact Assessment specialist, alongside other heritage specialists, have considered the extent to which the impact assessment carried out on the Hill of Uisneach is required to be updated, in particular paying regard to:

- The submissions on the Proposed Development application (ABP Pl 321595; 316051);
- The topics raised in the Inspector’s report on the decision, and the Note included in the Board Direction (ABP Pl. 316051);
- Updates and further detail on the baseline environment;
- Updates to surveys and assessments;
- Updates and further consideration given to regulations, policy and guidance.

This Technical Report covers the following topics:

- **Planning Context & Rationale:** A rationale for this Technical Report, providing an overview of submissions from statutory bodies and commentary made in the An Bord Pleanála Inspectors Report pertaining to the Hill of Uisneach and its current status forming part of the Royal Sites of Ireland bid for UNESCO World Heritage Status;
- **Methodology and Limitations:** An overview of the methodology used to supplement the baseline, and assessment on the Hill of Uisneach included in the EIAR with due regard and appropriate consideration of UNESCO Guidance. Also identified are the limitations associated with the methodology and use of UNESCO Guidance, alongside detail on the consultation with key statutory stakeholders including the National Monuments Service and the Cultural Heritage Officer of Westmeath County Council;
- **Hill of Uisneach Assessment:**
 - A description of the significance of the Hill of Uisneach, its key characteristics, attributes and relevant sensitivities;
 - A summary of the information and assessments included in the EIAR (Chapter 12 - Landscape and Visual; Chapter 13- Cultural Heritage);
 - Presentation of additional baseline information, and subsequent impact assessment.

The assessments in this Technical Report are supported by photomontage visualisations from 3 No. Viewpoints presented in **Appendix 4 Photomontage Booklet**.

From the outset, it is highlighted that the Hill of Uisneach was assessed in the EIAR which concluded that the Proposed Development would not significantly impact the setting of cultural heritage monuments on the Hill of Uisneach or its landscape and visual sensitivities due to the substantial setback distance from the summit of the Hill which comprises a distance of 8.8 to the nearest proposed turbine and 10.7km to the furthest. It is also noted that in the Board Direction issued by An Bord Pleanála on the application, the Board identified that it would be best practice for the EIAR to have regard of relevant UNESCO Guidance in the impact assessment of the Hill of Uisneach, and that further information would be required to address this matter in the event that the Board is minded to grant planning permission.

Statement of Authority

The analysis reported in this document was prepared as a collaboration between the following Consultants:

- Lisa Courtney: Director of Courtney Deary Archaeology Consultants;
- Miriam Carroll: Director of Tobar Archaeological Services Ltd;
- Jack Workman: Landscape and Visual Project Director of MKO Planning and Environmental Consultants;
- Michael Watson: Environmental Director of MKO Planning and Environmental Consultants;

Lisa Courtney

Lisa Courtney is an experienced cultural heritage and archaeological consultant specialising in heritage management plans and impact assessment in different cultural heritage environments for integrated multi-disciplinary teams. This translates into a proven record of carrying out robust and transparent heritage impact reports for large scale infrastructural projects. Her experience demonstrates a capability of characterising the existing historic and archaeological environment and evaluating its significance. Ms Courtney has a detailed knowledge of the relevant cultural heritage legislation, standards and guidelines and an ability to appropriately incorporate these statutory and non-statutory requirements into the reporting process. As part of her continual professional development, Lisa has obtained certificates from University College Dublin (UCD) in World Heritage Management (2022) from the University of Oxford in Condition Surveys of Historic Buildings (2017) and the assessment of setting of heritage assets (2013).

Lisa has direct experience working on projects within the buffer zone and wider landscape of Brú na Bóinne (a UNESCO World Heritage Property) as well as experience working on projects in the vicinity of the Royal Sites for example the Rock of Cashel, Tara and Rathcroghan. For the N5 Ballaghaderreen to Scramoge Road Project, a key consideration throughout the consultation and design process was the identification and preservation of the attributes that contribute to the significance of Rathcroghan, a Royal site and a candidate UNESCO World Heritage Site and ensuring that the development of a road that did not detract from the outstanding universal value, authenticity and integrity of this nationally important well preserved, multi-period, ritual and royal site. Ms Courtney has also collaborated with Stephen Carter, a World Heritage specialist, together they have conducted feasibility and impact assessment for projects within the wider landscape setting of sensitive heritage assets.

Miriam Carroll

Miriam Carroll graduated from University College Cork in 1998 with a Masters degree in Methods and Techniques in Irish Archaeology. She is licensed by the Department of Housing, Local Government and Heritage to carry out excavations and is a member of the Institute of Archaeologists of Ireland. Miriam has been working in the field of archaeology since 1994 and has undertaken numerous projects for both the private and public sectors including excavations, site assessments (EIAR) and surveys. Miriam Carroll is a director of Tobar Archaeological Services Ltd which has been in operation for over 20 years. During this time, she has carried out Archaeological Impact Assessments (AIA) for many projects including infrastructural developments and renewable energy projects such as wind farms and solar farms. Miriam has developed extensive expertise in the cultural heritage impact assessment of wind energy projects through her involvement in a significant number of large-scale wind energy projects across Ireland, delivered within the framework of Environmental Impact Assessment (EIA).

Jack Workman

Jack Workman MSc., TMLI, is the Landscape & Visual Project Director at MKO and is chartered as a Technician Member of the British Landscape Institute. Jack is an environmental scientist and an LVIA

specialist with an academic background in the field of Environmental Science and Geography. Jack's primary role at MKO is scoping and writing LVIA for EIARs with over 5 years' experience managing all aspects of LVIA for a broad range of commercial infrastructure developments, with a focus on large scale wind energy developments. Jack holds a BSc. in Psychology, and an MSc. in Coastal and Marine Environments (Physical Processes, Policy & Practice). Jack is an active participant in the National Landscape Forum, presenting in 2023 and 2024 on the topic of LVIA, he also regularly delivers guest lectures for students on the topic of LVIA at top third level institutions in Ireland including University of Galway, Trinity College Dublin, University College Dublin and University College Cork. Jack holds a membership with the Chartered Institute of Water and Environmental Management and is also a member of the Landscape Research Group. Jack has developed significant expertise in the LVIA of complex wind energy projects through his involvement in the design and impact assessment of a broad portfolio of large-scale wind energy projects across Ireland.

Michael Watson

Michael Watson who is the Environment Division Director in MKO has over 25 years' experience in the environmental sector. Following the completion of his master's degree in environmental resource management, Geography, from National University of Ireland, Maynooth he worked for the Geological Survey of Ireland and then a prominent private environmental consultancy prior to joining MKO in 2014. Michael's professional experience includes managing Environmental Impact Assessments and Landscape & Visual Impact Assessments on behalf of clients in the wind farm, waste management, commercial and industrial sectors nationally. Michael worked on the capture and development of photomontages as well as compiling the Landscape & Visual Impact Assessments for some of the first wind turbines being proposed in Ireland in the early 2000's and has been compiling and reviewing LVIA chapters for multiple wind farm projects each year since 2014. Michael is a key member of the MKO senior management team and as head of the Environment Division has responsibilities to mentor various grades of team members, foster a positive and promote continuous professional development for employees. Michael also has a Bachelor of Arts Degree in Geography and Economics from NUI Maynooth, is a Member of IEMA, a Chartered Environmentalist (CEnv).

1.2

Proposed Development Description

The Proposed Development will comprise the construction of 9 No. wind turbines with a blade tip height of 185 metres and all associated works in the townland of Umma More, and adjacent townlands, in Co. Westmeath.

For clarity, the project referencing implemented for the EIAR is detailed below.

- Where the 'Proposed Development' is referred to, this relates to all the project components described in detail in Chapter 4 of the submitted EIAR i.e Wind Farm Site and Grid Connection as detailed below.
- Where 'the Site' is referred to, this relates to the primary study area for the EIAR, as delineated by the EIAR Site Boundary in green as shown on Figure 1-1 of the EIAR.
- Where the 'Wind Farm Site' is referred to, this refers to turbines and associated foundations and hard-standing areas, meteorological mast, junction accommodation works, access roads, temporary construction compound, underground cabling, spoil management, site drainage, tree felling and all ancillary works and apparatus. The planning application for the Wind Farm Site is made to An Bord Pleanála in accordance with the provisions of Section 37E of the Planning and Development Act 2000, as amended.
- Where 'Grid Connection' is referred to, this refers to the temporary construction compound and 110kV onsite substation, and associated underground 110kV cabling connecting to the existing Thornsberry 110kV substation, subject to a future planning

application under Section 182A of the Planning and Development Act, 2000, as amended.

The planning application and EIAR documents can be accessed via the project website here <https://ummamoreplanning.com/>. The EIAR included a Landscape and Visual Impact Assessment in Chapter 12 – Landscape and Visual’ (Hereafter referred to as the ‘EIAR LVIA’) and it also included an Archaeology and Cultural Heritage Impact Assessment in ‘Chapter 13 – Archaeology and Cultural Heritage’ (Hereafter referred to as the ‘EIAR Cultural Heritage Assessment’).

The following text is included from Section 12.1.3 in the EIAR LVIA and is applicable for all of the analysis and assessments included within this Technical Report:

Essential Aspects of the Proposed Development from an LVIA Perspective

“The term ‘proposed turbines’ or ‘Proposed Development turbines’ refers to the 9 No. turbines proposed as part of the Proposed Development. Guidance for LVIA (GLVIA3, 2013) states that “it is important to make sure that the project description provides all the information needed to identify its effects on particular aspects of the environment. For LVIA it is important to understand, from the project description, the essential aspects of the scheme that will potentially give rise to its effects on the landscape and visual amenity”. The tall, vertical nature of the proposed turbines make them the most prominent elements of the Proposed Development from a landscape and visual perspective and have the most potential to give rise to significant landscape and visual effects. In this regard, the proposed turbines are deemed to be the ‘essential aspect’ of the Proposed Development which will give rise to effects on the landscape and visual amenity and are therefore a primary focus of the LVIA conducted in Chapter 12.

Other components of the Proposed Development, i.e. Grid Connection and all other components of the Wind Farm Site are not deemed to be as visually prominent as the proposed turbines, however, they have the potential to give rise to localised landscape and visual effects. Although not the primary focus of the LVIA, these elements are given due consideration throughout this chapter.”

The impact of other non-turbine components of the Proposed Development (i.e. Grid Connection) were assessed and given due consideration in the EIAR LVIA and EIAR Cultural Heritage Assessment. However, given the setback from the Hill of Uisneach and its environs (8.8km between the summit of the Hill and nearest proposed turbine), it is only the proposed turbines which are the relevant essential aspect of the Proposed Development addressed in this Technical Report with regards to potential landscape and visual impacts on receptors at the Hill of Uisneach and indirect effects on the setting of relevant cultural heritage monuments.

Duration of the Proposed Development

Planning permission has been sought for a thirty-year operational life of the Proposed Development from the date of full commissioning of the wind farm and subsequent decommissioning. Potential impacts of the Proposed Development are defined as ‘Long-Term’ in the context for the definition for duration as per ‘Guidelines on the Information to be Contained in Environmental Impact Assessment Reports’ (Environmental Protection Agency of Ireland [EPA], 2022) – Hereafter ‘EPA, 2022’. Therefore, potential Landscape, Visual and Cultural Heritage impacts of the Proposed Development on the Hill of Uisneach are not permanent, and are reversible. Any potential extension to the planning permission beyond a 30 year duration would be subject to further impact assessment.

2.

PLANNING CONTEXT & RATIONALE

2.1

An Bord Pleanála Direction and Request for Response to Submissions

In 2024 An Bord Pleanála (ABP) refused planning permission for the Proposed Development on two grounds relating to the methodology used to calculate bird collision risk, and also on the location of the Proposed Development which was in contravention to local wind energy policy. Neither of these reasons for refusal relate to the Hill of Uisneach (Royal Sites of Ireland Tentative List World Heritage Property). However, in its Direction (BD-015291-24) published on the 12th of February 2024, the Board included the following ‘Note’:

“Note: The Board concurred with the inspector that while the Hill of Uisneach has been included on Ireland’s 2020 UNESCO World Heritage Tentative List for World Heritage Site Status, it is not yet a UNESCO site, however, it would be best practice for the EIAR to have regard to both the UNESCO Guidance and Toolkit for Impact Assessment in a World Heritage Context and the UNESCO Guidance for Wind Energy Projects in a World Heritage Context. The Board agreed with the inspector that further information would be required to address this matter in the event that the Board was minded to grant permission. As the Board agreed with the inspector’s recommendation to refuse permission, the Board did not pursue this matter further”

At the time of issuing this Technical Report in June 2025, the Hill of Uisneach (as part of the Royal Sites of Ireland) remains on the Tentative List and is not yet a UNESCO Site. Also, since the ABP Direction in 2024, the Board’s decision has been quashed by order of the High Court and the application has since been remitted back to ABP and is now a live planning application (ABP PI 321595). On the 7th of February 2025 and 21st May 2025, ABP invited the applicant to make further submissions and observations on the planning application. In consideration of the ABP Note cited above and relevant submissions on the application, this Technical Report has been compiled to include further detailed information addressing the effects on the Hill of Uisneach, ensuring appropriate and proportionate regard to relevant UNESCO Guidance.

2.2

Summary of Submissions relating to Hill of Uisneach

A total of 59 no. submissions were received on the Proposed Development planning application during the submission period in early 2023, and a total of 24 no. submissions were received on the Proposed Development planning application during the submission period in early 2025. Of those submissions, the Hill of Uisneach featured as an item of concern to a number of third-party observers and by statutory bodies including Westmeath County Council, the Department of Heritage and Local Government (hereafter ‘DoHLGH’), and the Office of Public Works (hereafter ‘OPW’).

The main topics pertaining to the Hill of Uisneach identified in the submissions are summarised as follows:

1. **The potential deficiencies in the overall methodology and scope of the Archaeological Impact Assessment**
 - a. The status of the Hill of Uisneach on the tentative UNESCO World Heritage list and requirements for its consideration in the EIAR

- b. Identifying best practice for the EIAR to have regard to the UNESCO Guidance and Toolkit for Impact Assessments in a World Heritage Context, and UNESCO Guidance for Wind Energy Projects in a World Heritage Context
- 2. **Limitations in the Landscape & Visual Impact Assessment**
 - a. The lack of verified photomontages from the Hill of Uisneach and the subsequent limitations in the level of assessment for the EIAR LVIA, and EIAR Cultural Heritage Assessment i.e the sensitivity of the Hill of Uisneach and its wider cultural landscape setting. It is acknowledged that prevention of access to the Hill of Uisneach is outside the control of the applicant.
 - b. The assessment of visual impact deemed inadequate
- 3. **Potential negative effects on the Hill of Uisneach and wider landscape setting arising from the Proposed Development**
 - a. Potential for negative effects on the panoramic views of the Hill of Uisneach
 - b. Potential for negative cumulative effects on landscape due to presence of ‘50 turbines’ in vicinity
 - c. Potential for negative effects on the Outstanding Universal Value (OUV) of the Hill of Uisneach with specific reference made to the prominent hilltop location and visual focus of the Hill of Uisneach as a landmark in the landscape

2.3

Summary of ABP Inspectors Report relating to Hill of Uisneach

The Board Direction was informed by an Inspectors Report published in 2024 (hereafter referred to as ‘Inspectors Report’). Section 11.5 of the Planning Assessment in the Inspectors Report includes a Section titled ‘Hill of Uisneach – Cultural Heritage and Visual Impact’. Section 11.5 describes the current status of the Hill of Uisneach as one site forming part of the assemblage of 6 sites across Ireland grouped as the ‘Royal Sites of Ireland’. The Royal Sites of Ireland are currently on Ireland’s Tentative List, making them suitable for nomination to the UNESCO World Heritage List. Section 11.5 provides an overview of the characteristics of the Royal Sites which relate to their potential ‘Outstanding Universal Value’ (OUV) as have been reported within submissions on the planning application.

The Operational Guidelines for the implementation of the World Heritage Convention (UNESCO, 2024) defines the concept of Outstanding Universal Value (OUV) as *‘cultural and/or natural significance, which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole.’* (Operational Guidelines, paragraph 49).

OUV is a concept relating to the exceptional significance of a cultural or natural heritage site and is essentially the overarching standard a site must meet in order to be inscribed on the UNESCO World Heritage List. The topic of OUV in the context of the Hill of Uisneach is comprehensively discussed later in Section 3.2 of this Report. However, from the outset, it is important to highlight that the OUV of the Hill of Uisneach and the entire Royal Sites of Ireland has **not** yet been defined. OUV can only be defined if and when it is to be inscribed as a UNESCO World Heritage property, which is currently an uncertain scenario. Consequently, reference to OUV can only, and should only, be currently considered as being ‘potential’ OUV.

Section 11.5 of the Inspectors Report references submissions made on the application which cite specific attributes and characteristics of the Hill of Uisneach which have potential to contribute to OUV and would be relevant in the impact assessment of the Proposed Development. The Inspector specifically notes the submissions made by the DoHLGH, the OPW and the local Planning Authority. This submission by the DoHLGH describes the attributes and characteristics of the Hill of Uisneach which have the potential to contribute to OUV, these include the following, as reported in Section 11.5 of the Inspectors Report:

“As stated in the submission from the DHLGH, the Hill of Uisneach incorporates a multi-period archaeological complex including eight barrows, six ring ditches, a megalithic tomb, two standing stones, four enclosures, six ringforts, four souterrains, and two holy wells, all of which are recorded monuments under the RMP. It is stated that a key attribute of the complex is its prominent hilltop location, which is also central to its potential OUV, and provides a visual focus for a wider cultural landscape. The panoramic views are considered to be important to the authenticity of the site in the present day and the Department states it is important that any potential effects to the visual links between the Hill of Uisneach and its cultural hinterland are adequately understood and assessed.”

In the context of potential impact of the Proposed Development turbines, which are located at a distance of 8.8 km from the summit of the Hill of Uisneach, these attributes specifically pertain to the visual links with the wider cultural landscape as experienced from the elevated vantage point of the Hill of Uisneach itself, as well as views towards the Hill of Uisneach as a landmark and visual focus from locations within the landscape.

The inspector noted submissions evaluating the methods used for the EIAR Cultural Heritage Assessment and EIAR LVIA suggesting limitations with regard to the consideration of relevant UNESCO Guidance for impact assessment and the absence of a photomontage from the Hill of Uisneach. These limitations are comprehensively addressed later in this Technical Report.

The inspector determined that there is a degree of uncertainty in relation to what elements of the views from the Hill of Uisneach contribute to potential OUV, particularly in relation to the visual connection of viewsheds and lines of sight from the Hill with sites and locations in the surrounding landscape. The following excerpts are from the Inspectors Report and are pertinent to the supplementary materials and analysis provided in this Report:

From Section 11.5.8:

“While the importance of the Hill of Uisneach is recognised in the county development plan and through its inclusion on the tentative list for World Heritage status, no specific detail is provided in relation to the OUV of this particular site and therefore no detail in relation to the specifics of its ‘Outstanding Universal Value’ or what in particular within the panoramic view is important.”

From Section 11.5.9:

“The primary impact of this development is considered to relate to the visual impact of the windfarm on the Hill of Uisneach, when viewed from the Hill of Uisneach.”

“I note the submission on the tentative list in its conclusion states ‘There is the potential for threats to affect the visual links of the sites to their cultural landscapes but these are controlled through the spatial planning processes’. It is not clear to me from the reading of this submission what elements of the cultural landscape when viewed from the Hill of Uisneach are key to its OUV and this is a key element of information missing/element of assessment missing in order for the spatial planning process to be effective. I note the windfarm does not interfere with the intervisibility between the Hill of Uisneach and Knockastia, however, other such cultural elements of significance in the wider hinterland are not identified as important views/line of sights from the Hill, indeed the line of sight to Knockastia is not specifically identified in any documentation.”

From Section 11.5.10:

As a working landscape, it can be expected that the landscape is constantly changing and evolving, however, the context of the extent or viewshed from the Hill which a development such as this would affect in terms of what elements/viewshed when viewed from the Hill are significant is not clear.

“In this case, the lack of information and assessment in terms of what elements of the working landscape are important when viewed from the Hill of Uisneach means a decision on this application as submitted cannot ensure protection of its OUV and standing within the tentative list”

Ultimately, the Inspector determined that more information is required in order to effectively address the impacts of the Proposed Development on the Hill of Uisneach and that regard should be given to relevant UNESCO guidance, as well as ensuring consultation with the local planning authority and DoHLGH.

3. **METHODOLOGY & LIMITATIONS**

This section details the methodology used for further analysis and provision of further information to supplement the impact assessments included in the EIAR. Whilst every effort has been made to ensure the methods used, and information contained in this Technical Report address all of the limitations and uncertainties identified in the Inspectors Report and submissions on the planning application, there remains two key factors which unavoidably constrain the analysis:

- The absence of a ‘Statement of Outstanding Universal Value’ as the Hill of Uisneach is not currently inscribed as a UNESCO World Heritage Property;
- Restriction of use of any imagery captured from the landholdings on the Hill of Uisneach itself by the landowner;

This section provides further detailed information on these limitations and how they are addressed by the methodology used and further information provided. It must be emphasised that irrespective of these limitations, they do not inhibit an effective and robust impact assessment, and there is enough information provided to allow the competent authority to conduct a comprehensive impact assessment of the Proposed Development with respect to the Hill of Uisneach.

The closest Proposed Development turbines to the summit of the Hill of Uisneach are located at a distance of 8.8 km from the closest point. As established in the EIAR, the planning inspectors report, in relevant submissions, and through consultation with statutory bodies, there is no direct physical and material connectivity with the assemblage of monuments at the Hill of Uisneach, or their immediate landscape. Therefore, the reference to guidance in this section, and methods set out for provision of further information in this Technical Report include a focus on landscape and visual, as well as a cultural heritage assessment including the setting of the Hill of Uisneach, as this is a highly relevant topic requiring clarity in the impact assessment of the Proposed Development.

Given the views expressed by the inspector and endorsed by ABP, the project experts have devised an assessment based on the information in the EIAR and supplemented with a specific assessment of the Hill of Uisneach to allow an appropriate and robust approach for understanding and assessing the significance of the Hill of Uisneach, and through this understanding, to assess the magnitude and nature of potential impacts arising from the Proposed Development.

3.1

Methodology and Approach of the Archaeological and Cultural Heritage Impact Assessment

This Technical Report includes a supplementary Archaeological and Cultural Heritage Impact Assessment which will:

- Establish a coherent narrative explaining the cultural and historical significance of the Hill of Uisneach;
- Assess the potential impacts of the Proposed Development on both the setting and experience of the monument and the wider landscape;
- Include analysis of photomontages and ZTVs from the EIAR, as well as further visual tools, such as additional receptor mapping and spatial analysis, representative photomontages, analysis of drone imagery and other annotated visualisations necessary to support a comprehensive cultural heritage assessment (Section 5.2).

The assessment will also consider the intangible cultural heritage associated with the Hill of Uisneach, including its continued symbolic importance in Irish cultural identity and tradition (e.g., Bealtaine ceremonies), as these aspects contribute to its overall significance. Though no formal buffer zone currently exists, the assessment will apply a setting-based approach, recognising the need to assess impacts not only on the site itself but on its wider cultural and visual envelope.

The assessment will be undertaken in accordance with the following legislation, frameworks and guidance:

Relevant national and regional heritage legislation and plans, including:

- Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023
- National Monuments Acts 1930-2014
- Planning and Development Act 2000, as amended
- Westmeath County Development Plan 2021-2027
- Westmeath Strategic Heritage Plan 2024-2030
- Conservation Management Plan for the Hill of Uisneach June 2022 with amendments July 2023
- ICOMOS Guidance on Heritage Impact Assessments for Cultural World Heritage Properties 2011;
- UNESCO Guidance and Toolkit for Impact Assessment in a World Heritage Context 2022;
- UNESCO Guidance for Wind Energy Projects in a World Heritage Context 2022

3.2

Appropriate and Applicable Consideration of UNESCO Guidance Documents

Two UNESCO Guidance documents were cited by the ABP Inspector in Section 11.5 of the Inspectors Report, and also in submissions made by the OPW and DoHLGH. An analysis of the following guidance are reported in this subsection:

- Guidance and Toolkit for Impact Assessments in a World Heritage Context (UNESCO, 2022)
- Guidance for Wind Energy Projects in a World Heritage Context (UNESCO, 2022)

The Toolkit for Heritage Impact Assessment in a World Heritage Context is specifically designed to assess impacts on properties that are already inscribed on the UNESCO World Heritage List or those with formally adopted Statements of Outstanding Universal Value (OUV). World Heritage properties are inscribed on the World Heritage List for their exceptional cultural and/or natural values for all humanity. This importance is expressed through the Outstanding Universal Value (OUV) of a site. The OUV is endorsed by the World Heritage Committee in the Statement of Outstanding Universal Value (SOUV), usually at the time of inscription.

States Parties through the ratification of the World Heritage Convention and the inscription of a property on the World Heritage List, pledge to protect a property and its OUV for present and future generations. The OUV is established at the time of inscription and can only be changed by a new nomination process with approval by the World Heritage Committee.

As one of the ‘Royal Sites of Ireland’ the Hill of Uisneach is proposed for nomination for UNESCO World Heritage status. This comprises six separate sites across Ireland, each containing a collection of well-preserved prehistoric and early medieval monuments described in medieval texts as the principal royal sites of Ireland. While inclusion on the Tentative List does not guarantee that any part of the ‘Royal Sites of Ireland’ will become a World Heritage Property, it does indicate the very high level of importance attached to the site by the state. Within the County Westmeath Heritage Plan (2018-2023) there is a specific commitment to:

‘continue to support the promotion of Uisneach as one of the Royal Sites of Ireland, by means such as the proposal for the designation as a UNESCO World Heritage Property and/or other appropriate initiatives.’

A nominated tentative property, such as the Hill of Uisneach, does not have an officially recognised OUV by the World Heritage Committee.

The toolkit has been developed to assess potential impacts on properties that:

- Have been formally inscribed on the World Heritage List
- Have an adopted Statement of OUV
- Are already subject to the requirements of the World Heritage Convention.

The toolkit has developed a heritage impact assessment (HIA) approach tailored to protect sites whose OUV is recognised and binding. In contrast, tentative sites are not yet inscribed, meaning they do not have formal protection under the Operational Guidelines for the Implementation of the World Heritage Convention. Tentative sites do not have a formally adopted OUV, meaning there is no agreed framework against which to assess the impact of a development. The tentative list status means a country has proposed a site for potential future nomination, but it has no legal or procedural standing under the World Heritage Convention.

While assessing the project in accordance with the UNESCO Guidance and Toolkit for Impact Assessment in a World Heritage Context is not applicable in this case, the assessment process can be informed by the guidelines, along with the UNESCO Guidance for Wind Energy Projects in a World Heritage Context.

At the time of writing this Technical Report, there is **no** definitive statement of what constitutes OUV for the Hill of Uisneach, therefore complete alignment with the UNESCO guidance is not currently possible. However, there are suggested frameworks and technical tools within the guidance which have been considered and adopted in the provision of new information in this response to ensure the most comprehensive and robust assessment possible in the absence of both any defined OUV or defined spatial buffers.

As such, the assessment of heritage impact will be considered through national legislation and frameworks identified above while recognising the justification for OUV for the group nomination of

the Royal Sites of Ireland put forward by the State and that until the Hill of Uisneach is formally inscribed, it does not hold a binding World Heritage status.

3.2.1

Guidance and Toolkit for Impact Assessments in a World Heritage Context (UNESCO, 2022)

The Guidance and Toolkit for Impact Assessments in a World Heritage Context (hereafter referred to as ‘Guidance and Toolkit (UNESCO, 2022)’) was published by UNESCO and advisory bodies in 2022. It provides guidance and a framework for those undertaking an impact assessment on World Heritage Sites. World Heritage Properties (WHP) require a Heritage Impact Assessment (HIA). These are project specific assessments that focus on the potential effect on a heritage place’s OUV and other heritage and conservation values. In the context of World Heritage properties, a HIA should focus on identifying and assessing negative and positive impacts on the attributes which convey the OUV of the WHP. HIA is unwarranted in this instance due to the absence of any defined OUV. The impact assessment process and methodology within the guidance is very similar to that of an Environmental Impact Assessment (EIA). The Toolkit quotes EIA as being an appropriate mechanism for conducting impact assessments. The key distinction between the Toolkit and EIA is the requirement to assess impacts on OUV of a site. As part of evaluating potential impacts on WHS, it is important to define the type of change that will occur and if this change is reversible, temporary or permanent. It is re-iterated again that the OUV for the Hill of Uisneach and any spatial buffers from the Hill are yet to be fully designated and defined as the Royal Sites currently sit only on the Tentative List. Therefore, EIA is fundamentally an appropriate and applicable framework for assessing impacts on the Hill of Uisneach in the current scenario where there is no definition of OUV for the Hill of Uisneach.

3.2.2

Guidance for Wind Energy Projects in a World Heritage Context (UNESCO, 2022)

Cultural Heritage Overview: UNESCO Wind Guidance (UNESCO, 2022)

From a cultural heritage perspective, the following key points are of interest with respect to The Guidance for Wind Energy Proposals in a World Heritage Context’ (hereafter referred to as the ‘UNESCO Wind Guidance (UNESCO, 2022)’):

Understanding Outstanding Universal Value

World Heritage properties are recognised for their OUV, encompassing attributes such as historic significance and cultural importance. A wind energy project must ensure that these attributes remain unaltered. This necessitates a thorough understanding of the property’s OUV before commencing any development.

Early Engagement and Collaborative Planning

Initiating dialogue between wind energy developers and heritage authorities at the earliest planning stages is critical. This type of collaboration facilitates the identification of potential impacts on world heritage properties and allows for the integration of protective measures into the design of the project.

Comprehensive Impact Assessments

Each impact assessment should be tailored to address the unique characteristics of the receiving archaeological and historic heritage environment.

Visual Impact Considerations

As detailed above the visual intrusion of wind turbines can significantly affect the integrity and authenticity of cultural landscapes. Visual Impact Assessments should be integrated into the planning process to evaluate how proposed infrastructure may alter the visual setting of heritage sites.

There are 8 principles for conducting a World Heritage related impact assessment that concerns wind energy projects.

- Principle 1: all wind energy project proposals that may adversely affect a World Heritage property must undergo a rigorous impact assessment (Environmental and Social Impact Assessment – ESIA), whether they are located within or outside its boundaries.
- Principle 2: Experts with knowledge about World Heritage in general and specifically about the World Heritage property/properties in question must be closely involved in the assessment process.
- Principle 3: The likely environmental and social impacts of the development proposal on the property’s OUV must be assessed, including direct, indirect and cumulative effects.
- Principle 4: Reasonable alternatives to the project proposal must be identified and assessed with the aim of recommending the most sustainable option to decision-makers.
- Principle 5: Mitigation measures should be identified in line with the mitigation hierarchy.
- Principle 6: Special sections on World Heritage must be included in ESIA’s that have a general scope.
- Principle 7: Information from the assessment and the results must be publicly disclosed.
- Principle 8: Adequate follow-up measures need to be developed based on information and result of the impact assessment.

The UNESCO Wind Guidance (UNESCO, 2022) makes ‘Notes’ on steps and analytical processes which can be undertaken to inform the impact assessment of world heritage sites. Most ‘Notes’ cannot be used in the context of the Proposed Development due to the absence of any defined OUV. However, a variation of these steps can be adopted and have been considered and included in the provision of further information in this document, this includes Note 1 - GIS & Mapping, Note 5 - Visual Impact Assessment, and Note 6 - Cumulative Assessments.

Note 1 - Mapping Attributes

The first step in any impact assessment of the effects of a wind farm on a World Heritage Site is a mapping exercise. This step requires the identification and mapping of the attributes and values that convey OUV of the site (Hill of Uisneach). The basis of the attribute mapping is the ‘Statement of Outstanding Universal Value’. This would be a GIS focused exercise mapping any physical or material elements that contribute to OUV. Many attributes are listed that should be considered and where possible incorporated into a common mapping environment. To align with this Note, a mapping exercise was conducted which aimed to demonstrate geographic and spatial context to support and supplement the impact assessments, this included mapping the following:

- The Proposed Development and its location relative to monuments in the Hill of Uisneach Landscape Character Area.
- Locations within the Hill of Uisneach complex where protected panoramic views are located;
- The location of monuments, sites and features in the wider cultural landscape which have connection and relevance to the Hill of Uisneach, as well as the line of sight from the Hill to these locations;
- Topographic modelling showing the landform and landscape characteristics of the Hill and the wider cultural landscape surrounding it, including that of the Proposed Development.
- Zone of Theoretical Visibility (ZTV) mapping of the Proposed Development turbines;

- ZTV mapping of the Hill of Uisneach itself: i.e. where the summit and landform of the Hill as a landmark will be theoretically visible and experienced from by receptors within the surrounding landscape;
- Other existing, permitted and proposed wind energy developments within 25km of the Hill of Uisneach summit;

Section 5.2 of this report includes an analysis of outputs of the mapping exercise to support the impact assessment.

Note 5 - Visual Impact Assessment

Note 5 is the visual element of assessing the effects of a proposed wind farm on a World Heritage Site <https://whc.unesco.org/en/wind-energy/note5/>. Note 5 is highly relevant in the context of the Proposed Development which is a wind farm located 8.8km west of the summit of the Hill of Uisneach, and as identified in the EIAR, planning submissions and Inspectors Report, the potential impact on the Hill of Uisneach primarily relates to visual links and visual connectivity. The methodology, tools and process for visual impact assessment in Note 5 are very much aligned with the methods used for the EIAR LVIA which follow best practice guidelines for the LVIA of wind energy developments in Ireland. The main differences would arise in the concept of assessing OUV:

“The assessment of the visual impacts of a wind energy project relates directly to the visual qualities of the OUV of properties within their aspect of integrity. From the point of view of World Heritage protection and management, the project should not compromise or marginalize the visual characteristics and attributes of a World Heritage property”

A focus in Note 5 is the assessment of impacts of a wind farm on setting, stating vulnerability studies/sensitivity mapping which would be key to understanding and assessing OUV:

“the connection between the property’s OUV and its key panoramas and vistas, as well as intangible connections and ways in which people and communities perceive the property and its surrounding.”

Vulnerability studies cannot be completed in complete alignment with the guidance without OUV being defined. However, the additional assessment in this report provides further analysis of the key panoramas and vistas from the Hill of Uisneach (See Section 5.2), and also the ways in which people and communities perceive the Hill as a landmark from within the landscape.

Note 5 includes a table detailing ‘Elements that need consideration during the assessment and evaluation of Impacts’. Whilst many of these elements were previously considered and incorporated into the visual impact assessments included in the EIAR LVIA, they have also been considered and utilised where possible in the further information provided in Section 5 of this report.

Note 5 sets out many technical tools that could be used to support visual assessments of a UNESCO site. These technical tools predominantly relate to photomontage visualisations and GIS analysis such as topographic modelling, viewshed analysis, and Zone of Theoretical Visibility mapping. These are typical of tools used in the discipline of LVIA and were used (where possible) for the EIAR LVIA and provision of further information in this report.

This Technical Report includes supplementary GIS modelling and photomontage visualisations which appropriately encapsulate all of the suggested tools cited in Note 5. The methods and processes used for generation of digital visualisations and simulations followed, where it was possible, benchmark best practice guidance and the highest industry standard in terms of data collection protocols, digital modelling and image presentation. Consequently, the mapping and photomontage outputs are accurate, reliable and robust. Detailed information on the technical methodology and guidance used for mapping and photomontage production are included in Section 3.6 below.

Section 5.1 of this report includes an overview of the LVIA which was conducted for the EIAR and the range of best practice guidance which was used. These include a variety of guidelines covering relevant topics such as EIAR and wind energy development in Ireland, and also very specific guidance for LVIA and photomontage production. A ‘Case Study’ is cited at the bottom of Note 5 of UNESCO Wind Guidance (UNESCO, 2022). It references the Guidelines for Landscape and Visual Impact Assessment 3rd Edition which was published in 2013 by the British Landscape Institute and the Institute for Environmental Management and Assessment, hereafter referred to as ‘GLVIA3 (LI & IEMA, 2013)’:

“In 2013, the Landscape Institute for Environmental Management and Assessment (IEMA) published a Guidelines for Landscape and Visual Impact Assessment (GLVIA3). This is a key resource for those involved in assessing visual impacts or reviewing an impact assessment report including specific references to the assessment of visual and landscape impacts. Although the guidance is not a World Heritage specific document and does not focus on the OUV of World Heritage properties, it nevertheless could serve as key guidance for the assessment of a property’s visual sensibility and for the identification and evaluation of possible visual impacts.”

GLVIA3 (LI & IEMA, 2013) are the primary guidelines used for the impact assessments of the Proposed Development in the EIAR LVIA, these guidelines strongly informed the methodology, processes and impact assessment frameworks that were used during the assessment of the Hill of Uisneach itself and the visual receptors visiting the Hill of Uisneach. In this regard, the framework for impact assessment of receptors used in the EIAR LVIA is very much aligned with UNESCO Wind Guidance (UNESCO, 2022).

Note 6 - Cumulative

Note 6 addresses the methods for adequately assessing cumulative effects of wind energy developments on World Heritage Sites <https://whc.unesco.org/en/wind-energy/note6/>

“When considering wind energy developments, the cumulative impact assessment includes both direct and indirect effects from existing elements and proposed projects and from other previous and reasonably foreseeable future changes that potentially have an impact on the OUV of a World Heritage property and its attributes. This might be:

- *a new wind energy project in an area where elements/structures have already been built/implemented that in combination adds up impacts;*
- *a new wind energy project in combination with one or more existing or approved but unbuilt project;*
- *a new wind energy project in an area where other projects are planned in the reasonably foreseeable future;*
- *an extension to an existing or approved but unbuilt project;*
- *more than one wind energy project proposed at the same time within an area; or*
- *any combination of the above.”*

A search was conducted to identify and map all other existing, permitted and proposed wind energy developments within 25km from the Hill of Uisneach summit. These other developments are mapped and discussed with regards to their potential cumulative impacts on the Hill and interactions with the Proposed Development in Section 5.2.8 of this report. Where potentially visible within the specified field of view, cumulative wind energy developments are included in the photomontages and modelled in the wireline views presented in the Appendix 4 Photomontage Booklet.

The methods used for conducting this cumulative search are consistent with those reported in Section 12.6 of the EIAR LVIA, and the methods for assessment of cumulative landscape and visual effects are consistent with the methods set out in Section 1.5.5 of Appendix 12-1 of the EIAR – LVIA Methodology.

3.3

Other Relevant Guidance Documents and Reference Material

In the absence of an authoritative, UNESCO-endorsed statement of OUV, this Technical Report has set the baseline for further analysis and assessment by identifying criteria and attributes which could potentially embody the OUV of the site. Section 4 of this report sets out the Baseline for the assessment it includes a description of the Hill of Uisneach, its monuments, landscapes and significant attributes and values. This has been done through consultation with Westmeath County Council and the National Monuments Service (of the DoHLGH), as well as review of the following published literature:

[A Guide to World Heritage Nomination – World Heritage Advice Series No. 1 – \(Department of Housing Local Government and Heritage, 2023\)](#)

This manual was devised to assist local authorities and key stakeholders in navigating the process of nominating sites for UNESCO World Heritage status. This guide is particularly tailored to support sites on Ireland's tentative list and acknowledges the Hill of Uisneach as part of the 'Royal Sites of Ireland' serial nomination. The guide highlights the importance of demonstrating OUV, a key criterion for UNESCO World Heritage designation. It provides detailed information on the nomination process, including the preparation of nomination dossiers, stakeholder engagement and management plans. All of which are pertinent to the inclusion of the Hill of Uisneach in the World Heritage tentative list.

[World Heritage Tentative List Technical Evaluation \(National Monuments Service and Department of Housing Local Government and Heritage 2022\)](#)

The World Heritage Tentative List Technical Evaluation sets out how each Tentative List application was evaluated and outlines the basis for inclusion in Ireland's (2022) World Heritage Tentative List. A synopsis of the tentative list application is included in Appendix II where the Royal Sites of Ireland application is summarised and the significance of the Hill of Uisneach (pg. 72) is described. The authenticity of the site and how it potentially expresses Outstanding Universal Value (OUV) is discussed in Section 4.1.

[Conservation Management Plan for the Hill of Uisneach Co Westmeath June 2022 with amendments July 2023](#)

A Conservation Management Plan (CMP) was produced for the Hill of Uisneach to ensure sustainable management and development of the site and its assemblage of monuments. This CMP was published by the Uisneach Advisory Group in 2022 as a collaboration between Westmeath County Council, the Heritage Council, Archaeological Management Solutions and other key stakeholders, including local landowners. The CMP includes a detailed description of the Hill of Uisneach, its monuments, characteristics and attributes contributing to its significance and nomination to the tentative list to become a UNESCO World Heritage Property. The CMP was a useful resource used in the identification of sites of interest in the wider archaeological landscape setting which informed the mapping exercise and visualisations which are discussed in Section 4.2.1 and Section 5.2 of this Technical Report.

A range of other source material and guidance documents used to inform the assessments are included in the Bibliography at the end of this Technical Report.

3.4

Fieldwork

A constraint in the impact assessments included in the EIAR was the restriction of access to the private lands at the Hill of Uisneach for the purposes of capturing imagery and GPS data for production of verified photomontage visualisations. MKO began engagement with the relevant landowner in July

2021 to gain access to the Hill of Uisneach for the purposes of assessment. Following ongoing engagement, formal instruction was issued by the landowner to MKO consultants denying access to the land for the purposes of capturing imagery and also restriction of use of any imagery captured from within their landholdings for any commercial purpose or use (e.g. a planning application). Since the submission of the planning application and the EIAR in March 2023, subsequent and continued efforts have been made to communicate with the landowner, by the applicant, MKO and other consultees. These communications have been unsuccessful and no permission has been acquired to access the lands at the Hill of Uisneach for capture of photomontages or for the use of imagery from the lands.

Irrespective of the prohibition of use of imagery captured from the Hill itself, authors of this Technical Report have visited and experienced the Hill of Uisneach in the past. These experiences have informed their understanding of the Hill, its cultural heritage monuments, its landscape context and the nature of views of the surrounding landscape towards the Proposed Development. However, for the reasons cited previously, imagery from the Hill of Uisneach cannot be used for the impact assessment of the Proposed Development. The knowledge about views from the Hill and expert opinion of the cultural heritage and landscape professionals are important and have informed the impact assessments included in this Technical Report.

3.4.1 Other Representative Photomontage Viewpoints

Additional fieldwork was undertaken in the landscape surrounding the Hill of Uisneach to capture photomontage data and drone imagery. In order to provide further information and visual aids within this Technical Report, and in the absence of verified photomontages from the lands at the Hill of Uisneach itself (due to restrictions set out above), additional measures have been taken. These include:

- **Representative Viewpoints:** Capture of representative photomontages from nearby peaks of high elevation in slightly closer proximity to the Proposed Development (representing a precautionary scenario).
- **Drone Viewpoint:** Capture of suitable 360-degree panoramic imagery from a drone for the production of a photomontage, from directly above the summit of the Hill at a height 15 metres above existing ground level¹.

It is acknowledged that the representative viewpoints have limitations with regards to the exact landscape context presented and the actual foci and direction of views from the Hill of Uisneach; and, there are slight technical limitations regarding the verification accuracy of the photomontage produced from the drone imagery. These limitations are discussed further in the following section. However, these supplementary visual aids provide greater clarity and context for the impact assessment in combination with the site visits and mapping exercises which are presented and discussed in Section 5.2 of this report.

3.5 Consultation

Upon receipt of the Board Direction for the Proposed Development, the EIAR LVIA and EIAR Cultural Heritage Assessment, alongside the respective submissions and Inspectors Report were presented to Dr. Stephen Carter, a Principal Heritage Consultant with experience in wind energy developments and the assessment of UNESCO sites. Dr. Carter carried out a review of the submitted application and provided technical advice for the further assessment of the Hill of Uisneach in the

¹ *The landowner does not own the airspace above the Hill of Uisneach and therefore it was possible for the suitably qualified pilot to fly the drone to this location and capture the imagery from this location. This exercise was carefully managed with complete respect for GDPR such as individual and residential privacy, of which there was no individual captured in any imagery, only the landscape views from atop the Hill.

EIAR LVIA and EIAR Cultural Heritage Assessment. Dr. Carter also provided a recommendation for Courtney Deery to join the EIAR Team as a technical expert to provide expertise in the assessment of Hill of Uisneach as a tentative UNESCO site.

Courtney Deery joined the EIAR team following receipt of the request to respond to submissions on the planning application in February 2025, from that point Lisa Courtney of Courtney Deery led in defining the scope for further assessment and in the engagement with relevant consultees on the Hill of Uisneach. As identified in Section 3.4 above, restriction of access to the Hill of Uisneach was identified as a priority for discussion with relevant consultees. Engagement took place with the Westmeath County Council Heritage Officer and the OPW in March 2025 to request assistance in gaining access to the Hill of Uisneach. Unfortunately, in both instances it was clarified that given the location of the Hill of Uisneach in private landholding, there was no possibility in Westmeath County Council or the OPW to aid the Applicant and relevant EIAR team in gaining access. Further engagement was had with the Westmeath Heritage Officer on the Hill of Uisneach itself and its conservation management plan as identified in Section 3.3 above.

On the 20th March 2025, a request was issued to the World Heritage Unit in the National Monuments Service in DoHLGH, for a meeting to discuss the submission made by the DoHLGH on the planning application and present the proposed approach for understanding and assessing the significance of the Hill of Uisneach, and through this understanding, to assess the magnitude and nature of potential impacts arising from the Proposed Development.

A meeting was held on the 8th of April 2025 where the Applicant and EIAR project team presented to the DoHLGH. Those in attendance included:

- William O'Connor (the Applicant)
- Niall Galvin (the Applicant)
- Michael Watson (MKO)
- Ellen Costello (MKO)
- Miriam Carroll (Tobar)
- Lisa Courtney (Courtney Deery)
- Teresa Bolger (DoHLGH)

The team gave an overview of the Proposed Development and the Hill of Uisneach in a Power Point Presentation. Matters discussed included:

- Introduction & Planning Context
- Proposed Development Overview
- Landscape Features and Landscape Character Areas
- Archaeological Impact Assessment
- Summary of ABP Inspector's Concerns
- Hill of Uisneach
 - Significance
 - Regulatory Framework and Protection Status
- Proposed Development & Hill of Uisneach
 - Assessment to Date: LVIA and Archaeological & Cultural Heritage Impact Assessment
- Proposal for Further Assessment

Following the presentation, a discussion took place on the proposal for further assessment where the DoHLGH identified the opportunity to provide a more informed appraisal on the level of impact on the Hill of Uisneach, and to calibrate the assessment based on the sensitivity of setting. Further discussion was had on the UNESCO Toolkit and whilst no OUV has been defined for the Hill of Uisneach, due consideration of the UNESCO Toolkit in the assessment where applicable is recommended. Overall, the DoHLGH identified the importance of presenting a well-informed appraisal to facilitate robust decision making by the consenting authority.

3.6

Methodology for LVIA, GIS Mapping and Photomontage Production

Many of the technical tools used for the provision of further information were also used in the EIAR LVIA. In order to avoid repetition, the reader is directed to relevant sections of Appendix 12-1 of the EIAR which includes the 'LVIA Methodology'. Appendix 12-1 covers the scope of the EIAR LVIA, the guidance used and the impact assessment methodology and processes for assessment of landscape and visual effects. The guidelines, impact assessment methods and definitions used for the LVIA included in Section 5 of this report are consistent with the methods set out in Appendix 12-1, although appropriate and proportionate consideration of UNESCO guidance is also included. An overview of the methods used for various technical tools used in the production of further materials are detailed below.

3.6.1

GIS Spatial Analysis and Hill of Uisneach Study Area

The assessments in this Technical Report have been informed by spatial analysis conducted using Geographic Information Systems (GIS) mapping software. GIS was used to analyse distances orientations and geographic relationships between the Proposed Development, the Hill of Uisneach and its monuments, planning policy boundaries, and relevant monuments, features and heritage receptors of the wider landscape setting. For the EIAR LVIA an 'LVIA Study Area' was set to 25km from the proposed turbines in accordance with best practice guidance. For the purposes of the mapping analysis and assessments in this Technical Report, a study area has been used which comprises all lands within 25km from the summit of the Hill of Uisneach itself. The mapping included in this Appendix include topographic modelling and also Zone of Theoretical Visibility (ZTV) modelling.

ZTV mapping of the proposed turbines included in this Technical Report follows the same technical methodology used for the EIAR. The methodology for Half Blade ZTV generation and its limitations are reported in Section 1.3 of Appendix 12-1 of the EIAR and also Section 12.3.3 of the EIAR LVIA.

A ZTV map was produced for the summit of the Hill of Uisneach itself (Figure 5-22). This ZTV essentially shows where the summit is theoretically visible from within the surrounding landscape to 25km. There is no specific or prescriptive guidance for producing this type of ZTV, however, the methods, limitations and input terrain data used for the ZTV of the summit is the same as used for the proposed turbines excepting numerical parameters used for modelling. Above average height of a visual receptor is approximately 1.7 metres. The Hill of Uisneach summit ZTV was produced from 1.7 metres above the summit and to a height of 1.7 metres in the surrounding landscape in order to show a worst-case scenario.

3.6.2

Photomontage Production & Limitations

Photomontages from 3 No. Viewpoints are included in the Appendix 4 Photomontage Booklet. 2 No. representative viewpoints, VP17 and VP18 and one viewpoint captured from a drone VP19. The methods used for photomontage production follow the methods set out in Section 1.4 of Appendix 12-1 of the EIAR. The methods used for surveying and data collection (different for VP19, discussed below), data processing, graphics production and final presentation of photomontages within the booklet follow a rigorous approach utilising best practice guidance for LVIA, photomontage production and benchmark guidance for the production of wind energy photomontages, as follows:

- 'Visual Representation of Development Proposals' (Landscape Institute Technical Guidance Note 06/19, 2019) (LI TGN 06/19);
- 'Visual Representation of Wind Farms, Version 2.2' (SNH, 2017) (SNH Guidance v.2.2);

In line with best practice guidance for the production of photomontages for wind energy development (SNH Guidance v.2.2, 2017 and LI TGN 06/19, 2019) the photomontages are printed on A1 banner

sheets of paper which present the proposed turbines enlarged to fit within a 53.5° horizontal field of view. It is acknowledged that photomontages can be subject to a range of limitations which are set out in Section 1.4.2 of Appendix 12-1. However, every attempt has been made to adhere to benchmark best practice standards and specifications for photomontage production and presentation for the EIAR.

Viewpoints 17 and 18 – Type 4 Photomontages

Viewpoints 17 and 18 are ‘Type 4’ photomontages. Under the LI TGN 06/19 Type 4 visualisation standards, photomontages are produced using quantifiable data with procedural transparency and a high level of accuracy. These visualisations involve using a defined camera and lens combination, with the camera location accurately established with a GNSS GPS to enable precise scaling and correct placement of the 3D model within the view. The camera and lens combination specified in the standards is a Full Frame Sensor (FFS) camera with a 50mm focal length prime lens. This approach ensures that the photomontages are survey and scale verifiable, reliable, and meet industry standards for visual accuracy.

The proposed turbines are shown within stitched panoramic imagery. To eliminate parallax errors and ensure image alignment during panorama creation, a Nodal Ninja panoramic tripod head was used. This equipment is specifically designed to minimize parallax (the distortion of panoramic image when multiple individual images are stitched), ensuring that the images are seamlessly stitched together, thus preserving the integrity of the visual representation.

Viewpoint 19 Drone Photomontage – Type 3 Photomontage

The data used for photomontage Viewpoint 19 was captured using a drone for reasons set out in section 3.4 previously. The data captured from the drone is subject to some minor accuracy limitations compared with viewpoints 17, 18. One minor limitation pertains to the specific camera lens used by the drone. For instance, a wide angle 24mm lens with full frame sensor is built into the drone, whereas guidance advises use of a 50mm full frame sensor. As the photomontage includes stitched panoramic imagery which is enlarged and presented in line with best practice guidance, the only limitation of using the 24mm is slight compromise on resolution, meaning the detail of distant landscape features is slightly less than compared with use of a 50mm lens.

The drone was used to capture imagery to be stitched into a 360 panorama, this requires turning of the drone whilst in flight which is susceptible to very minor changes in lens location and potential parallax error. Whilst the internal GPS of the drone is very accurate, it has a greater margin of error compared with the exact precision of the still, ground mounted GNSS GPS used for VP17 and VP18. In mind of these limitations, Viewpoint 19 qualifies as being a Type 3 Photomontage as per the LI TGN 06/19 verification standards.

It is highlighted that the margin of error with regards to lens positioning is insignificant in the context of the setback distance from the proposed turbines, a distance of 8.8km in this instance. Notwithstanding the very minor data collection limitations, all modelling and rendering processes used for the production and presentation of VP19 followed best practice methods and guidance. Although Viewpoint 19 is technically not a Type 4 photomontage, it provides a very accurate visual representation of the proposed turbines from atop the Hill of Uisneach albeit with less clarity of the most distant landscape features. In reality, the only true limitation of Viewpoint 19 from an impact assessment perspective is its positioning 15metres above ground level, a view which does not give the full context of visual screening factors experienced by receptors on the ground, a topic addressed and discussed comprehensively in Section 5.2.

4.

HILL OF UISNEACH: BASELINE

4.1

Hill of Uisneach Designation and Protection Measures

The protection and conservation of the monuments that comprise the Hill of Uisneach are controlled by a range of national legislation, local mechanisms and international statutory and non-statutory guidance. These legislative provisions include, amongst others, the National Monuments Acts 1930-2014, Historic and Archaeological Heritage and Miscellaneous Provisions Act 202, Westmeath County Development Plan 2021-2027 (hereafter 'WCDP'), Planning and Development Acts, various EU directive and international charters (Section 3.1).

Comprising 46 recorded monuments, the Hill of Uisneach is a multi-phased archaeological complex including eight barrows, seven ring-ditches, a megalithic tomb, two standing stones, four enclosures (including a hilltop enclosure), four ringforts, four souterrains, three house sites, an earthwork, a burial ground, two hut sites, a road, two medieval houses, a building, a ritual pond, rock art and two holy wells. These monuments (shown below in Figure 4-1 and Figure 4-2) are individually detailed in Annex 1, at the end of this Report.

The CMP has been developed in order to safeguard this multifaceted heritage while enabling responsible public access, education and sustainable tourism, ensuring the site's protection for future generations. The CMP provides a condition survey of each individual monument on the Hill.

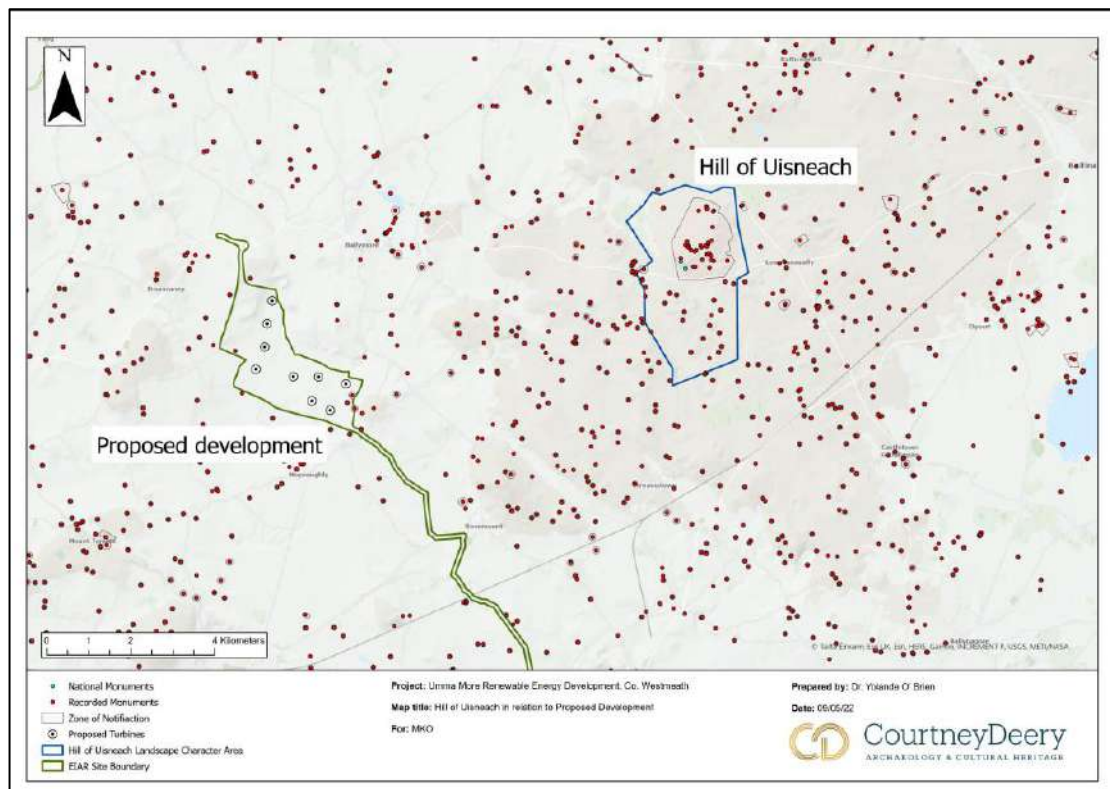


Figure 4-1 The Hill of Uisneach in relation to the Proposed Development

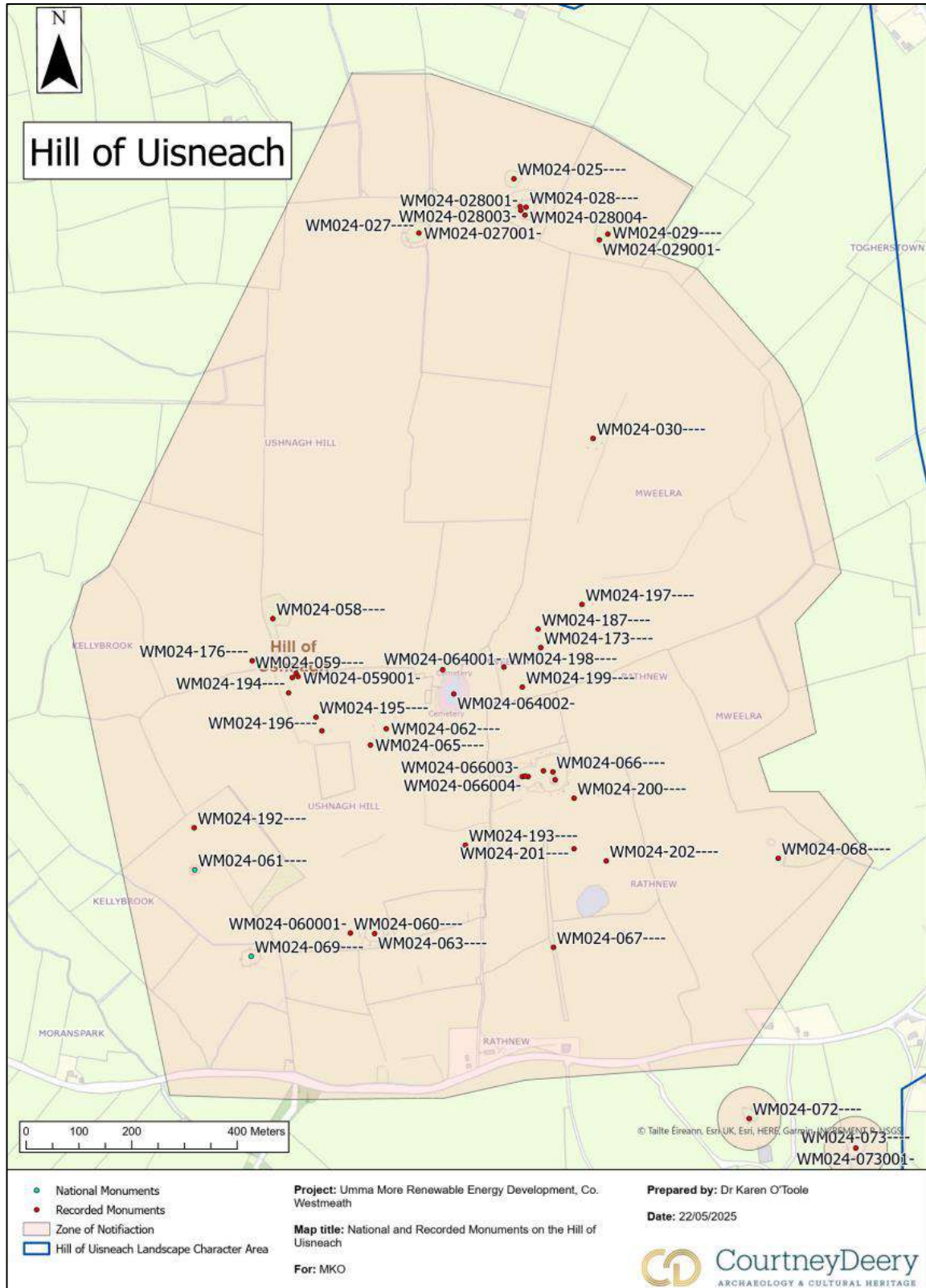


Figure 4-2 National and Recorded Monuments on the Hill of Uisneach

The WCDP recognises the significance and sensitivity of the Hill of Uisneach and has designated it as a High Amenity Area with views from the perimeter skyline ridge identified as a Protected Panoramic View of national importance (Appendix 5, View 36).

From a landscape perspective, 'Core' and 'Buffer Areas' of the High Amenity Area are identified as locations where any development is likely to significantly alter the appearance and context of

monuments [Core Area] and areas where developments should be carefully scrutinised to anticipate and avoid significant changes to landscape context of the monuments or to the inter-relationship between the Core Area and relevant monuments in the surrounding landscape (Buffer Area). The Core Area and Buffer Areas are shown in Figure 13.2 of the WCDP and is presented in Figure 5-2 and discussed further in Section 5.2.1.

In addition to the policies and objectives outlined in the CDP for the Hill of Uisneach, policies and objectives in relation to the setting of the Hill of Uisneach and its character are:

‘CPO 13.17 Protect and enhance the setting of the Hill of Uisneach and support increased public access to the site. Only sensitive development that does not undermine the archaeological and cultural significance of the site will be permitted.

CPO 13.18 Protect and sustain the established appearance and character of views associated with the High Amenity Area around the Hill of Uisneach. Require any development proposals within the High Amenity Area around the Hill of Uisneach to demonstrate that no adverse effects will occur on the established appearance or character of this feature as viewed from either the Protected Panoramic Views or from surrounding public roads.’

The Hill of Uisneach, the symbolic central point of Ireland, is one of six sites (Dún Ailinne, Co Kildare; Rock of Cashel, County Tipperary; Rathcroghan, County Roscommon; Tara, County Meath and Emain Macha/ Navan Fort, County Armagh) that form the Royal Sites of Ireland. The sites demonstrate in physical form the development of power, ceremony and religion in a Celtic society minimally influence by the Romans (UNESCO, Royal Sites of Ireland, online).

Surviving archaeology and excavated evidence of buildings and other structures show that the sites were used extensively for ceremonial, religious and funerary purposes. All were sited on the top of hills or plateaux so that they could be seen from far away and had panoramic views of the surrounding areas. All are part of larger cultural landscapes which were focused on them.

The Hill of Uisneach is on the tentative list (2024) for future nomination to the UNESCO World Heritage Sites as one of the Royal Sites of Ireland. When heritage sites are moved from a tentative list to inscription on the World Heritage List, the World Heritage Committee adopts a Statement of Outstanding Universal Value (OUV). Such a statement explains how the site or place meets the relevant WHS criteria, how the conditions of authenticity and integrity are fulfilled and how the OUV will be cared for over time through management and protection.

According to UNESCO ‘integrity is a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes’. This includes not just the physical condition of the monument but also its setting. Processes used to assess impact on OUV, are outlined in the UNESCO Guidance and Toolkit for Impact Assessment in a World Heritage Context 2022.

The Hill of Uisneach is described in the World Heritage Tentative List Technical Evaluation (National Monuments Service and Department of Housing Local Government and Heritage 2022) as follows:

‘The Hill of Uisneach is a broad and prominent ridge, in Co. Westmeath, with extensive views and also visible from far away.³⁵ archaeological monuments are known about half visible above ground. Most are located on the plateau summit of the ridge. In early Irish histories, Uisneach is perceived as the symbolic central point of Ireland where the provinces came together. The earliest feature is a Neolithic enclosure of the fourth millennium BCE, over which was placed a passage grave. The burial tradition continued through the Bronze Age, with large mounds, ring barrows and ring ditches.

In the Iron Age, the large mound on the eastern summit was surrounded by an enclosure nearly 200m across (no visibility of the wind turbines). Another ditched enclosure was found c100m to the south (no visibility of the wind turbines). Both are close to the summit lake of Lough Lugh which may have been

modified to form a ritual pond (no visibility of the wind turbines). Another feature is the Cat Stone, a massive fragmented glacial erratic over 4m high, within an earthen enclosure c21m in diameter (the wind turbines will be visible in the background of this monument). There was much Early Medieval activity from c400CE with four ringforts. Rathnew is the most dominant with two adjoining ditched enclosures, and an overall diameter of 112m. They were occupied from the late seventh/eighth to the eleventh centuries and contained two souterrains and the remains of several houses and evidence of metal-working debris (no visibility of the wind turbines)’.

In terms of why the Royal sites may have Outstanding Universal Value, the technical evaluation documents the following:

‘From the 8th century CE, at least, Navan Fort, Dún Ailinne, the Rock of Cashel, Rathcroghan, have been the traditional royal centres of the North, East, South and West provinces, together with Tara, the seat of the High Kings, and the Hill of Uisneach, the symbolic central point of Ireland, forming a globally unique group of archaeological ceremonial complexes. They demonstrate in physical form the development of power, ceremony and religion in a Celtic society minimally influence by the Romans. Great value is added to the sites by the surviving legends and myths about these places which make it possible to know something of the relationship between them. As a group, they are still perceived as the historic power and spiritual centres of Ireland. Tara in particular is still a symbol of Irish national unity and cultural identity.

Also significant is the time-depth of most of these places showing the changing ways in which their spiritual and ceremonial importance were displayed through more than four millennia. It is clear that during the Iron Age (600BCE-400CE) and Early Medieval period (400-1100CE), a range of ceremonial structures were constructed in most of them in various combinations, including large circular enclosures with internal ditches, large timber structures and ceremonial ways. All are situated on prominent hills or plateaux so that they are dominant features in the landscape and all of them are parts of larger associated cultural landscapes. They are set apart from their wider landscapes by the scale and intensity of their use, their dominant positions, and by their obvious ceremonial, symbolic and ritual function.

Much of north-western Europe was either included within the Roman Empire or strongly influenced by proximity to it. Despite evidence of contact with the Empire, such as occasional artefacts found on the Royal Sites, Ireland is very unusual in that it was not influenced strongly (until after conversion to Christianity) so that the function of these six places into the early centuries of the Common Era enables us to see how such Celtic traditions evolved outside Roman influence, and also (particularly at the Rock of Cashel) how they could eventually be adapted to the needs of Christianity.’

In the absence of an authoritative, UNESCO endorsed statement, the justification for OUV for the Royal Sites of Ireland must be relied upon. The statement of Potential OUV for the ‘Royal Sites of Ireland’ forms part of the documentation supporting its inclusion on the Ireland Tentative List (<https://www.worldheritageireland.ie/category/tentative-property>). Selective quotations from this statement that relate to setting and views include:

Justification

“The ensembles of monuments of the Royal Sites are universally unique through their well-preserved cultural continuity and large-scale Iron Age complexes. The Royal Sites were sacred sites and places of royal inauguration and bear exceptional testimony to Iron Age civilisation forming a globally unique group of archaeological ceremonial complexes.”

“All of the Royal Sites form part of larger archaeological landscapes characterised by a large concentration of ritual monuments demonstrating in physical form the development of power, ceremony and religion in a Celtic society. Situated on strategic and elevated locations, the Royal sites are directly associated with Irish mythology and traditional beliefs and continue to represent spiritual and symbolic centres of Irish culture and identity, which have influenced approaches to life in many countries of the world.”

Authenticity

“The Sites all retain their prominent hill-top positions with panoramic views across their surrounding cultural landscapes. All the sites are characterised by surviving prehistoric and early medieval earthworks and masonry monuments. Their overall authenticity is high.”

Integrity

“The series as a whole has high integrity since it includes all six of the sites regarded as being the Royal Sites of Ireland. Each of the individual sites occupies a relatively large area, which is of adequate size to ensure the complete representation of the features, and processes conveying their significance. All key attributes are encompassed and the visual links between each Royal Site and its cultural hinterland remain intact, despite occasional intrusions.”

4.2

The Hill of Uisneach Description

The Hill of Uisneach as Ireland’s symbolic heart and a proposed UNESCO World Heritage site, represents the intersection of ancient kingship, ritual practice, and an enduring cultural identity. It is a rich archaeological and sacred landscape that contains 46 recorded monuments which span from prehistory to modern times. The survival of these remains and associated documentary evidence testify to the historic and social value of the Hill of Uisneach. As one of the ‘Royal Sites of Ireland’ it is proposed for nomination for UNESCO World Heritage status and two of the monuments on the Hill are National Monuments while the remainder are recorded in the Record of Monuments and Places (RMP). These monuments are in private ownership located within a working farm and as such access is presently restricted to organised tour groups.

Critical to understanding these monuments is understanding the wider setting of the Hill and views to and from same. The summit of Uisneach, similar to Tara, is located on a plateau of land with extensive and impressive views in all directions. Historically, the summit of the Hill is associated with ‘St. Patrick’s Bed’ as shown on the first edition 6-inch Ordnance Survey map (Figure 4-3 below). The monument crowns the highest point of the Hill (182m above sea-level), near the western end of the summit plateau, and commands extensive, panoramic views over the central plain of Ireland.

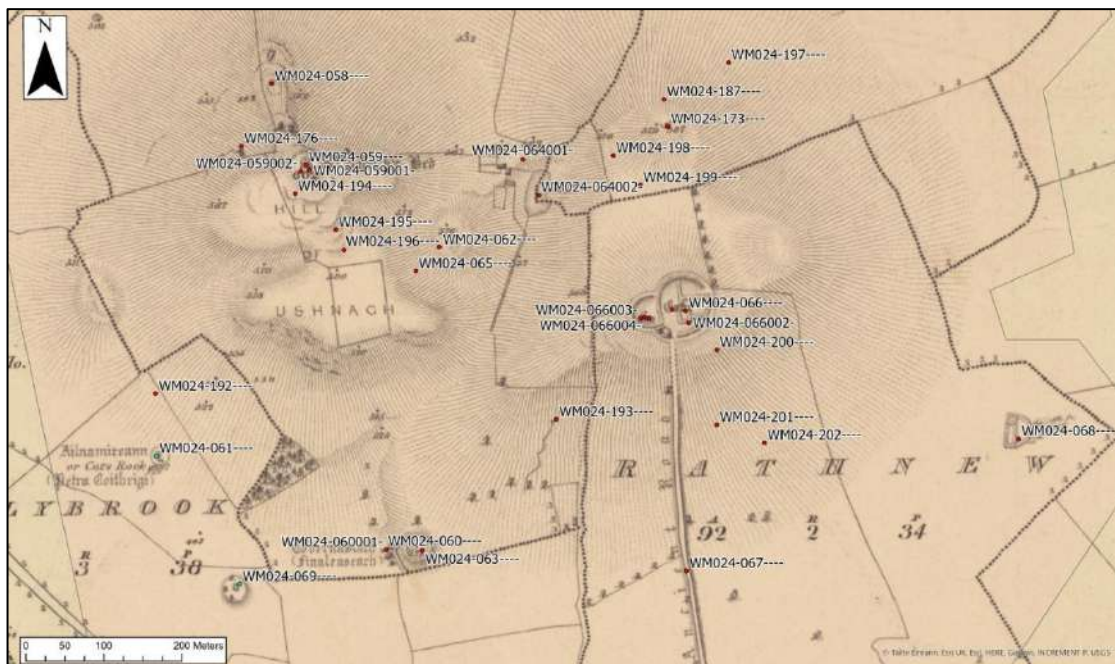


Figure 4-3 First Edition 6-inch OS map showing the National and Recorded Monuments on the Hill of Uisneach (south)

Historically the site is regarded as the centrepiece, or ‘naval’ of Ireland, symbolised by the presence of a great stone called the Ail na Mireann, or Stone of Divisions (the Cat’s Stone) and the navel of the goddess Eriu. This stone and its surrounding enclosure is annotated on the first edition 6-inch Ordnance Survey map as ‘*Ailnamireann or Cat’s Rock (Petra Coithrigi)*’. The Cat Stone, a massive glacial erratic, located on the Hill’s western slope is an iconic symbol of the axis mundi (Schot 2023).

The Hill is a place of exceptional cultural and ritual importance, a place apart, inspiring myths and legends. As an amenity, the Hill is the focus of the great fire ceremonies during the May time festival of Bealtaine. This attracts many visitors and each year the numbers are increasing.

There are 46 archaeological monuments recorded on the Hill spread across an area of c. 4km². More than twenty monuments are still visible, with many investigated by R.A.S. Macalister and R.L Praeger during their 1925-30 campaign of excavation (MacAlister and Praeger 1931). The monuments date from the Neolithic (c. 6,000-4,000 years ago) through to the medieval period, representing ceremonial, burial and settlement activity spanning several millennia (WCDP, 2021). The sites include a megalithic tomb (St. Patrick’s Bed), enclosures, barrows, mounds and ringforts, and related sites including two wells, one of which, is a natural spring purported to be the source of the River Boyne and linked in legend to the Tuatha de Danann.

The nearby Lough Lugh has obvious associations with the god Lugh. As the sacred centre of Midhe, the area has a central place, historically, geographically and metaphorically in the annals of Ireland and “was appropriated in the early medieval period as a symbolic, if not the de facto royal seat of the Southern Uí Neill kings, the *ríg Uisnig* “, after they wrested the territory from the Laigin (Leinstermen) in 516 AD, prompting a ‘flurry of building activity’ in the early medieval period, including the two most impressive enclosures in the complex. The Rathnew Enclosure on the summit is a conjoined bivallate ringfort that is almost 90m in diameter, also described as a ‘figure of eight’ enclosure. Excavated by R.A.S. MacAlister and Llyod Praeger in the 1920s it is early medieval in date, with tantalising evidence for earlier activity (MacAlister and Praeger, 1928, Schot 2006).

Another large enclosure, 80m in diameter at Togherstown, is defined by two widely-spaced ramparts on the northern slope of the hill (MacAlister and Praeger 1931). Both have yielded high status finds of 7/8th -11th century AD date (Schot, 2011) and evidence for prehistoric activity.

Geophysical surveys (Schot 2005, 2010) and a LiDAR survey conducted in 2020 has revealed a wealth of additional information about buried archaeological sites and remains including a complex of prehistoric sites on the summit of the Hill.

These findings now shed important new light on Uisneach's history and role as a ceremonial centre in prehistory and have included a large scale enclosures and burial sites around the stone cairn or tomb known as 'St Patrick's Bed' and elsewhere on the Hill.

It is recorded, as a place of assembly, burial and pagan ritual and shares much in common with them and other multi-period complexes “*that emerged as centres of kingship during the later prehistoric and early medieval periods*” (Schot, *ibid.*). Its origins as a centre-point or axis mundi probably reaches much further back in time as it is portrayed consistently in the early literature as a place of origins and beginnings, linked to the Otherworld; as a place where other divinely inspired judgements and proclamations were made regarding the cosmo-geographical divisions of the island (Schot, 2016).

At the Hill of Uisneach, according to legend, the first fire in Ireland was lit by the Druid, Mide, foster son of Ériu. In pre-Christian times at the Hill of Uisneach, the fire festival of Bealtine (which is also linked to Saint Brigid) was celebrated with bonfires, to welcome the beginning of Summer on the eve of May. These bonfires were lit in honour of Ériu and other deities and were the signal for the lighting of fires on hills across Ireland on that night. In myth, Uisneach is also considered the burial place of Lugh, one of the chief gods of the Tuatha De Danann, and linked to the great pan-European Iron Age God of the harvest, craftsmanship and the Sun. Somewhat linked to both, the Dagda, the Father God in Irish

mythology, is said to have stabled his solar horses at Uisneach which is said to represent a crossing point for the alignments of the midwinter and mid-summer Solstice sunrises.

During, the early medieval period, as a royal seat held by the Uí Néill, Uisneach attracted settlement and became renowned as a place of assembly and events. There are four ringforts on the Hill (Schot 2006) (one of which is a national monument) and several other in the immediate locality along with important early churches such as Killare southwest and Conragh (Conry) in the townland of Croughal to the southeast.

Killare is located approximately 1km southwest of the Hill of Uisneach. It is the site of a monastery founded by St. Áed mac Bric. The presence of two ruined churches, a holy well, and a graveyard enclosed by a large early medieval vallum suggests its importance as an ecclesiastical centre. Similarly, the early church site at Conragh located on an east/west routeway to the south of Uisneach is surrounded by a large ecclesiastical enclosure indicated on aerial imagery (Swan 1988). The proximity of both Killare and Conragh to Uisneach indicates a potential continuity of sacred landscape from pre-Christian to Christian times. Both Killare and Conragh point to the growing and continuing influence of Christianity in the region (Schot 2023).

There are many medieval monuments in the surrounding landscape of the Hill of Uisneach, these appear in the form of castles, churches and it is likely that ringforts continued to be inhabited into the later medieval period (CMP, 2023). Several undated enclosures, earthworks and building remains at the Hill of Uisneach may indicate continued occupation of a domestic or agricultural nature during the later medieval period. Individually these sites are not of particular architectural merit, but collectively they are of considerable significance for their potential to elucidate developments following the decline in political (though not symbolic) importance of Uisneach and the arrival of the Anglo-Normans in the late twelfth century (CMP, 2023). LiDAR survey (Davis 2020) has indicated significance linear earthworks that appear to be associated with medieval and post medieval farming. The majority are absent on the historic Ordnance Survey mapping which suggests that either predate the former or post-date the latter.

The Gaelic League organised a great gathering at the Hill of Uisneach on the 12 August 1906, the start of a decade of nationalistic events. The Hill was recentred to become a beacon of the past that could be used to promote a sense of national pride and connectiveness and unity between the five provinces of Ireland. The Hill served as a symbol for a deeply held aspiration for cultural and political unity and was also chosen by the United Irish League in October 1902 and 1908 to demonstrate support for Home Rule and to protest against coercion and land grabbing (Mitchell 2025).

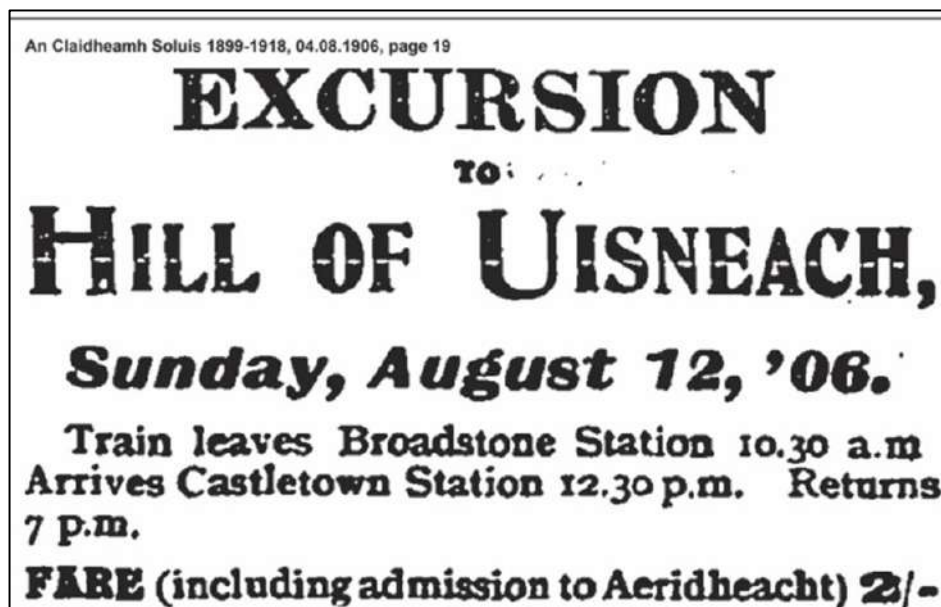


Figure 4-4 Press announcement of the 1906 gathering (Mitchell 2025)

4.2.1 Monuments in the Wider Cultural Landscape Setting

A number of archaeological monuments and sites in the wider landscape setting of the Hill of Uisneach were identified as part of this assessment which may have cultural, visual or functional connections to the Hill of Uisneach. While some of these were included in the assessment of potential effects in Chapter 13 of the EIAR by virtue of their location in relation to the Proposed Development or their potential intervisibility with the Hill of Uisneach, e.g. Frewin Hill, they are further discussed here in the context of the Hill of Uisneach and potential connection to same. This section is written with direct reference to Section 5.2.5 in which Table 1 lists the monuments in question, while Figure 5-11 shows the sites in relation to the Hill of Uisneach and the Proposed Development. Section 5.2.5 also discusses these sites from a landscape and visual perspective in the context of the Hill of Uisneach.

Notable monuments in the wider landscape which may be considered in the context of the Hill of Uisneach are discussed below (as listed in Table 1 Section 5.2.5). As shown on Figure 5-11, the majority of these monuments are situated to the east, north-east and south of the Hill of Uisneach while Knockastia Hill is located to the south-west. For ease of discussion the monuments are grouped below in terms of their perceived connection or relationship to the Hill of Uisneach, for example, royal sites or burial sites. Within the wider setting of the Hill of Uisneach, such monuments contribute to the broader ritual, mythological and settlement landscape. These surrounding sites often reflect similar cultural and temporal frameworks and their presence underscores the Hill of Uisneach's role as a central node within a network of prehistoric and early medieval activity.

4.2.1.1 Prehistoric Burial Sites

A number of burial sites with potential cultural or activity-related connectivity to the Hill of Uisneach are located in the wider landscape and comprise Knockastia Hill burial site (WM031-015—), Croghan Hill burial mound (OF010-004001-) and Frewin Hill barrow cemetery. All of these sites are the location of Bronze age funerary monuments which are positioned on elevated ground or low hills. Their elevated positions and funerary traditions make them comparable to the Hill of Uisneach in terms of the prehistoric burial activity carried out therein, potential intervisibility with Uisneach and in some cases may also comprise royal sites associated with the Kings of Ireland.

The nearest of these sites to the Hill of Uisneach is that at Knockastia Hill which is situated c. 7.2km to the south-west. This burial site is described on the Historic Environment Viewer (HEV) as an Early-Middle Bronze Age cemetery cairn situated on the summit of Knockast or Knockastia Hill. The cairn was excavated in the 1930s and uncovered '*a very large group of burials reflecting a broad variety of burial customs, including four inhumations in cists or unprotected, and thirty-nine cremations*'. It is comparable to the Hill of Uisneach in its use of elevated ground for the purposes of funerary or ritual activity in the prehistoric period. As illustrated in Figure 5-11, this site is located to the south-west of the Hill of Uisneach and to the south-east of the Proposed Development. Any potential intervisibility between the Hill of Uisneach and Knockastia will therefore not be affected by the proposed turbines which are not located in any potential sightlines between these two monuments.

The Bronze Age barrow cemetery at Frewin Hill is located c. 12.7km to the north-east of the Hill of Uisneach. It is discussed by McGuinness (2012) in his paper on the Prehistoric Burial Mounds and Related Monuments of County Westmeath. A number of barrow monuments are located on the summit of Frewin Hill and in its immediate environs, which despite its relatively low elevation of 171m commands views of a large sweep of land 'from the Wicklow Mountains in the East to the Leitrim hills in the west.' In this regard McGuinness (2012) compares it to the Hill of Uisneach from which twenty counties are said to be visible (ibid.). Again, this site is comparable to the Hill of Uisneach in its use of elevated ground for the purposes of funerary or ritual activity in the prehistoric period and its commanding views. As illustrated in Figure 5-11, this site is located to the north-east of the Hill of Uisneach and some 21km to the north-east of the Proposed Development. As discussed in Chapter 13 of the EIAR any potential intervisibility between the Hill of Uisneach and Frewin Hill will therefore not be affected by the proposed turbines which are not located in any potential sightlines between these

two sites. Furthermore, it is considered that the distance of the Proposed Development (c. 21km) from Frewin Hill is such that no significant visual effects to this site will occur.

Croghan Hill is a further example of the use of a low hill for the purposes of prehistoric funerary practices. It is situated in Co. Offaly c. 24.1km to the south-east of the Hill of Uisneach and a burial mound (OF010-004001-) is located on its summit. Interestingly, Croghan Hill also has a royal association and the monument description on the HEV notes the following in this regard: ‘The burial mound on Cruacháin Brí Éile was reputedly used as the inauguration site for the rulers of this region, the Ó Conchobhair (O’Connor) of Uí Failge (Faly/Offaly) (Fitzpatrick 2004, 32). This ritual function may be an example of a prehistoric burial mound being re-used in the medieval period by the local Gaelic clan. Through the inauguration process the O’Connor family could legitimately rule over this territory by establishing an ancestral link with the prehistoric people buried beneath the mound of Cruacháin Brí Éile.’ This site is therefore comparable to the Hill of Uisneach in terms of the aforementioned funerary activity and elevated position but also in terms of its potential use as an inauguration site. As illustrated in Figure 5-11, this site is located to the south-east of the Hill of Uisneach and some 30km to the south-east of the Proposed Development. Any potential intervisibility between the Hill of Uisneach and Croghan Hill, should it exist, will therefore not be affected by the proposed turbines which are not located in any potential sightlines between these two sites. Furthermore, it is considered that the distance of the Proposed Development (c. 30km) from Croghan Hill is such that no significant visual effects to this site will occur.

4.2.1.2 Royal Sites

In addition to Croghan Hill as discussed above, other sites with royal associations located in the wider landscape of the Hill of Uisneach include Cró Inis and Slemain Mide. The former was one of the royal residences of the ‘Kings of Uisneach’, Clann Cholmáin. The standing remains at this site comprise a crannóg and tower house which are situated c. 9.6km south-east of the Hill of Uisneach on the shores of Lough Ennell. The description of the crannóg on the HEV states the following in relation to its royal use:

‘This is the early medieval crannóg of Croinis, the historically attested royal seat of the Ua Maelsechlainn kings of the Clann Cholmain dynasty of the southern Uí Neill. Archaeological and historical evidence suggests that the crannóg was built prior to the ninth century (contemporary with the reign of Mael Sechnaill mac Maele Ruanaid, (Maelsechlainn I, obit 862). The saint’s lives and annals also indicate that it was the royal site of Mael Sechnaill maic Domnaill (Maelsechlainn II), who died on this island in AD 1022. The site was re-fortified in the early twelfth century (i.e. AD 1107 ± 9) and was probably also occupied in the late medieval period. The crannóg and ringfort (WM025-145—) are probably a royal settlement complex, strategically located out at the end of a promontory.’

The crannóg and the adjacent tower house are located c. 9.5km south-east of the Hill of Uisneach and c. 17km east of the Proposed Development. The connection between the Hill of Uisneach and Cro Inis will not be affected by the proposed turbines which are located to the west of both sites.

Slemain Mide which is reputedly an assembly site of the Clann Cholmáin, ‘Kings of Uisneach’ is located c. 11km north-east of the Hill of Uisneach and c. 19km north-east of the Proposed Development. According to McGuinness (2012, 21) this is the hill of Slane More which has six burial mounds on or beside it. Those on the summit, he says, are clearly intervisible with the main mound on Frewin Hill (ibid.). It was the site of an important battle between Ulster and Leinster documented in the annals under the year AD 498 and is frequently referred to in the Táin Bó Cúailnge as the spot where the Ulster army assembled after their march from the north (ibid.). Given the location of this site to the north-east of the Hill of Uisneach the connection and association between same will continue despite the introduction of the Proposed Development which is located to the south-west of both sites.

4.2.1.3 Early Church Sites

Two important early church sites at Killare and Conragh or Conry are located in the wider environs of the Hill of Uisneach at distances of c.1.3km and 2.2km from same. The proximity of both sites to Uisneach indicates a potential continuity of sacred landscape from pre-Christian to Christian times. The church at Killare is located c. 1.3km south-west of the Hill of Uisneach while the site at Conragh/Conry is situated c. 2.2km to the north-east. As is the case for the sites discussed above, the Proposed Development is not located within any potential sightline between these monuments and the Hill of Uisneach, being located further to the west. Any potential cultural, spiritual or visual connectivity between these sites and the Hill of Uisneach will continue despite the introduction of the proposed turbines and will not be adversely affected by the latter.

4.2.2 Significance, Attributes, and Constitutional Elements

The Hill of Uisneach is of exceptional significance due to its rich and diverse archaeological legacy and mythological associations. The ensemble of monuments emerged as a centre of kingship during the later prehistoric and early medieval period and is renowned as a place of ritual practice, assembly, burial and as holding an enduring cultural identity.

It is important to understand and recognise the makeup of the tangible and intangible elements of the Hill of Uisneach and how they contribute to its significance and how these attributes relate to the collective group known as the Royal Sites of Ireland (Young 2022). Attributes that contribute to the significance of the Hill of Uisneach as a collection of monuments located on an elevated plateau include:

- The monuments on the Hill of Uisneach sit on an elevated ridge with commanding views outwards and internal views along the ridge. The Hill appears as a broad and prominent ridge visible from far away.
- Symbolic central point of Ireland; Uisneach is portrayed as a royal seat in early documentary sources and a variety of texts refer to the kings of Uisneach, a title which appears from the eighth century and was synonymous with the kingship of Mide.
- Iron Age and Early Medieval concentration of major ceremonial, ritual and funerary monuments – A large mound on the eastern summit surrounded by an enclosure approximately 200m in diameter. A ditched enclosure 100m south of this summit was excavated by Macalister and Praeger in the 1920's and showed evidence of ritual activity. Schot (2006) suggests it dates to the last few centuries of the Iron Age (c.300-500AD). Other monuments appropriated from natural features include Lough Lugh that appears to be modified to form a ritual pond. The Cat Stone a glacial erratic over 4m high is surrounded by an earthen enclosure.
- A great number of earthworks survive.
- The reuse of pre-Iron Age features in the Iron Age and Early Medieval periods. The naming of a probable Neolithic passage grave as St Patrick's Bed may indicate re-use. The Rathnew ringfort (WM024-066001) occupies a commanding position within the core of the prehistoric complex and was deliberately built on the site of an earlier ceremonial enclosure.
- Evidence of adaption to the needs of Christianity and Christian kings during the late 7th century in an account of St Patrick's missionary journey around Ireland by Bishop Tirechán. It is described that on a visit to Uisneach, Patrick stayed next to *Petra Coithrigi* (the Cat Stone). In the 9th century, *Tripartite Life*, Fiachu and his brother Éndae resisted Patrick's attempt to establish a church at Uisneach. Other monuments are referred to as 'St Patrick's Bed' and St Patrick's Well. In 1111, the annals record a synod at Uisneach convened to establish a new diocesan division of western Mide.
- Sites such as the Cat Stone have been identified in the Annals as very special ancient places, associated with myths, legends and the underworld.

- The site reflects Ireland's long history with pastoralism.
- Further research and innovative survey techniques are discovering additional below ground site and adding a greater depth of understanding and interpretation about the site.
- Uisneach continues to be a place of historic power and the spiritual centre of Ireland, utilised for mass meeting in the 19th century. To this day, ritual use and veneration with the fires at Bealtine and Lughnasa and festival days take place.
- Associated with pre-Iron Age features through myths and legends.
- Relevant place name evidence for example *Uisneach* derives from the Old Irish *uisinn*, meaning temple.

Of the above tangible and intangible values, the question for the Proposed Development is how does setting contribute to this significance. Setting is not simply the visual aspect of a heritage asset, it is those parts of the surroundings of an asset that are relevant to the cultural significance of the asset. A statement of setting encompasses '*Setting should be thought of as the way in which the surroundings of a historic asset or place contribute to how it is experienced, understood and appreciated*' (Historic Scotland 2010). Factors taken into account when assessing the impact on setting include (after English Heritage 2005, Historic Scotland 2016, Historic England 2017 & Heritage Council 2013):

- **Scale** - The extent of a wind farm and the number (9 turbines), density and lateral expansion and disposition of its turbines can contribute to its visual impact. This is further discussed in Section 5.2.
- **Intervisibility** – certain archaeological and historic landscape features were intended to be seen from the Hill of Uisneach, these have been discussed above. The construction of the wind turbines has respected intervisibility between elevated sites such as Knockastia, Frewin Hill and Croghan Hill.
- **Vistas and sight-lines** – Designed landscapes involve key vistas or the use of topography to create drama or interest or frame a view. The turbines are not located within any key views associated with a demesne.
- **Movement** – The turbines are located at a remove from the Hill of Uisneach and the Hill will not be overshadowed or affected by noise and shadow-flicker effects.
- **Unaltered settings** - The setting of some historic sites may be little changed from the period when the site was first constructed, used or abandoned. Largely unaltered settings for certain types of sites may be rare survivals and especially vulnerable to modern intrusions such as wind turbines. In this case, the wider setting of the Hill of Uisneach is a rural pastoral working landscape of the central plains of Ireland. There will be a visual change in this landscape due to the introduction of wind turbines 8.8km to the west of the summit of the Hill of Uisneach. The turbines are placed in the extended viewshed from the Core and Buffer Area as designated in the WCDP.

Panoramic views experienced from the summit of the Hill and the wider adjoining hinterland are clearly integral to the setting and existing character of the Hill of Uisneach. The panoramic view is protected within the WCDP and commented on within The Hill of Uisneach CMP as part of the visitor experience, it also forms part of the Royal Sites's justification for OUV.

Views to and from the Hill of Uisneach are significant from a cultural and mythological significance, and in an archaeological and ceremonial context and through designation as follows:

- Uisneach is identified as the 'navel' or centre of Ireland where the panoramic views reinforce its role as an Axis Mundi (a sacred centre where the spiritual world and physical world connect).
- From the summit, it is said that one can see over twenty of Ireland's thirty-two counties on a clear day, emphasising its centrality and dominance in the landscape.
- The wide vistas would have enhanced the role as a ceremonial and assembly centre, enabling gatherings and processions.

- The visibility of and from the Hill of Uisneach is likely to have contributed to its function as a territorial marker and reinforced its political authority and identity.
- The commanding views form part of the visitor experience, offering a sense of Ireland's central plain and understanding of the Hill's strategic location.

The WCDP protects views to and from the Hill of Uisneach by:

- Designating the Hill as a High Amenity Area.
- Protecting 360 degrees panoramic skyline views.
- Restricting intrusive developments within the Core and Buffer Areas that might disrupt the visual setting.

The cultural heritage assessment (Section 6.5 below) is based on an understanding of how the setting contributes to the overall cultural significance of the Hill of Uisneach. This is founded on an analysis of the sensitivity and value of the asset, in this case demonstrated to be of exceptional or very high significance and consideration of the magnitude of the impact as detailed in the landscape and visual section of this document (Section 5).

5. LANDSCAPE AND VISUAL IMPACT ASSESSMENT

This section includes an overview of the relevant landscape and visual studies used to inform the impact assessments in the EIAR LVIA. Further information is provided in Section 5.2, this includes additional: mapping studies, visual analysis, drone visuals, representative photomontage visualisations and written analysis addressing the potential effects of the Proposed Development on the Hill of Uisneach from a Landscape and Visual Impact Assessment (LVIA) perspective. The further information and supplementary visualisations (See Appendix 4 Photomontage Booklet) have been provided to ensure consideration and applicable alignment with relevant UNESCO Guidance, as well as recommendations made during recent consultation with key stakeholders such as the National Monuments Service and engagement with the Heritage Officer from Westmeath County Council.

5.1 LVIA: Information included in EIAR

Chapter 12 of the EIAR (the EIAR LVIA) included a comprehensive LVIA of the Proposed Development conducted by MKO. The EIAR comprised seven documents:

- EIAR Chapter 12 Landscape & Visual;
- Volume 2: Photomontage Booklet, presenting existing and cumulative visualisations of the proposed turbines from 16 No. representative viewpoints in the LVIA Study Area;
- Appendix 12-1: LVIA Methodology, outlining the detailed methodology and guidance used for the assessments reported in Chapter 12;
- Appendix 12-2: LCA Assessment Tables, assessing effects on designated Landscape Character Areas (LCAs);
- Appendix 12-3: Photomontage Viewpoint Assessment Tables, a visual impact assessment of the 16 No. representative viewpoints presented in the Photomontage Booklet, including assessment of cumulative effects;
- Appendix 12-4: LVIA Baseline Map, a large A0 map showing all baseline landscape features, visual receptors, ZTV and viewpoints;
- Appendix 12-5: Photowire Booklet, presenting Type 3 photomontage visualisations (early-stage VPs) from 25 No. viewpoint locations in the LVIA Study Area which were not selected for the final Photomontage Booklet;

The methods and processes followed during the EIAR LVIA and preparation of the materials and documents listed above were produced in accordance with the frameworks, specifications and standards set out by best practice guidance for the LVIA of Wind Energy Developments in Ireland as identified in Section 12.2 of the EIAR LVIA.

Analysis of the UNESCO guidance documents in the context of LVIA are included in Section 3.3 of this Technical Report, and appropriate and applicable elements of these have been incorporated into the analysis and assessments included in Section 5.2 and Section 6. The further information included and assessments in this Technical Report have also been cognisant of recent and updated guidance published since submission for the EIAR, namely ‘Notes and Clarifications on Aspects of GLVIA3: Landscape Institute Technical Guidance Note 2024-01’ (hereafter, LI TGN 24-01) published by the Landscape Institute (LI) (2024).

5.1.1 EIAR LVIA Limitations – Imagery from the Hill of Uisneach

The local area and wider setting has been visited a multitude of times and these visits informed the assessment of effects of the Proposed Development on visual amenity from the Hill of Uisneach and effects on its landscape character and landscape setting as were reported in the EIAR LVIA. Considering the restricted access, the assessments in the EIAR were informed by LVIA tools such as ZTV mapping and a wireline visualisation and supported by written narrative to determine the likely effects following the impact assessment frameworks used in best practice guidance for LVIA.

Unfortunately, access to the private landholding at the Hill of Uisneach remains restricted (See Section 3.4 above). However, additional desk-studies and fieldwork have been conducted, including production of new representative photomontages, to address concerns raised in the submissions made on the planning application. The further information provided incorporates the recommendations made during recent consultation with relevant statutory stakeholders as identified in Section 3.5 above.

5.1.2 EIAR LVIA: Relevant Baseline Studies

As part of the baseline assessment, Section 12.4.1.1.4 of the EIAR LVIA included the policy context relating to the Hill of Uisneach, as set out in the WCDP. This section reported the relevant policy pertaining to the Hill of Uisneach, its designated Landscape Character Area (LCA - 8) and its protections as a High Amenity Area and the protected panoramic views. This policy context and mapping is addressed further again in combination with new mapping and further analysis in Section 5.2 of this Technical Report.

The baseline studies in the EIAR LVIA included several mapping figures included within the Chapter. These maps show geographic landscape context, illustrating the location of the proposed turbines relative to receptors in an LVIA Study Area to 25km from the proposed turbines, including the Hill of Uisneach. Relevant maps to analyse the Hill of Uisneach are listed below and can be seen in the EIAR LVIA:

- **Figure 12-1 Half Blade ZTV map** – this showed a half blade Zone of Theoretical Visibility map, showing the geographical extent where the 9 proposed turbines are theoretically visible;
- **Figure 12-2 Physical Landscape Features Map:** A map showing the macro scale features of the landscape in a 25km study area from the proposed turbines. This included the Hill of Uisneach in the Central Hills (LCA 8) to the east of the Proposed Development, as well as other features such as lakes rivers and prominent landforms;
- **Figure 12-6 Landscape Policy Context Map:** A map showing the landscape designations set out in local county development plans including the Hill of Uisneach

LCA, the Hill of Uisneach High Amenity Area, and also its protected panoramic views;

- **Figure 12-7; Figure 12-8 and Figure 12-9** are extracts from **local planning policy** showing the location of designated LCAs relative to the Proposed Development and also the location of the Hill of Uisneach LCA – LCA-9. The proposed turbines are located in LCA7 - Western Lowlands, this is adjoined by the LCA 8 - South Central Hills to the east, and then further east LCA- 9 the Hill of Uisneach;
- **Figure 12-10** – Extract from the WCDP showing the Hill of Uisneach Panoramic View and Buffer Zones.
- **Figure 12-14 LCA and ZTV Map:** The location of designated LCAs and the distribution of theoretical visibility within each LCA. For LCA-9 the Hill of Uisneach, the map shows areas of both no theoretical visibility, and also full theoretical visibility of 7-9 Turbines, as shown in an extract below.
- **Figure 12-15 and Figure 12-16 – Visual Baseline and ZTV Maps:** The maps used to identify visual receptors and aid in the process of scoping receptors in or out for visual impact assessment. Visitors to the Hill of Uisneach and its protected views are identified and scoped in for assessment due to the theoretical visibility overlapping the elevated locations on the Hill.
- **Figure 12-17 and Figure 12-18: Cumulative Baseline Map and Cumulative ZTV Map:** The maps used to show the geographical location of other existing, permitted and proposed turbines within 25km of the proposed turbines at the time of submission (March 2023). The cumulative ZTV shows where other turbines in the study area are theoretically visible in combination with the proposed turbines.
- **Figure 12-24 Viewpoint Locations:** Location of photomontage, photowire and rendered wireline viewpoints in within 25km of the proposed turbines, including a total of 36 viewpoints (15 Photomontages; 25 Photowires; 1 Rendered Wireline).
 - VP16: is marked as ‘Rendered Wireline’ produced from the Hill of Uisneach due to restrictions of use of imagery from the Hill.
 - VP05: a Photomontage Viewpoint located between the Hill of Uisneach and the Proposed Development
 - Alt-VP-E and AltVP-D: Photowires on the local road network to the north of the Hill of Uisneach aimed at showing similar or representative views of the proposed turbines from the area of the landscape near the Hill of Uisneach.

The Hill of Uisneach is referenced and discussed in the landscape appraisal of the Wind Farm Site itself. The following text was included in Table 12-5 – Indicators of Landscape Value and Sensitivity:

“There are no cultural associations within the EIAR Site Boundary itself. Several ring forts and monuments exist in the wider landscape and are of local cultural heritage value, these are not considered of national or regional value. National monuments within 5km from the nearest proposed turbine are identified and assessed in Chapter 13 - Cultural Heritage.

The Hill of Uisneach is located 8.8km east of the nearest proposed turbine, it is of local and national heritage importance. The Hill of Uisneach is not visible from the Wind Farm Site and there is no discernible connectivity with any heritage monuments within the Wind Farm Site. The Hill has no specific cultural association with the small river valley landscape of the Wind Farm Site itself and there are no records indicating the Hill provides this specific landscape with any unique historic identity. The potential impact of the proposed turbines on the landscape setting of the Hill of Uisneach and visual amenity upon the Hill is comprehensively assessed later in this Chapter.”

The Wind Farm Site is where the proposed turbines and infrastructure of the wind farm would be constructed, as cited above, there are no features, monuments or sites within this area or immediate surrounds with any physical, cultural or visual connectivity with the Hill of Uisneach. Assessment of the

Wind Farm Site during a site visit did not identify any clear and prominent views towards the landmark of the Hill itself due to the nature of visual screening experienced on the ground within the small river valley where the Proposed Development is located. This visual screening includes vegetation and the intervening landforms comprising the foothills of the South Central Hills located between the Hill of Uisneach and the Wind Farm Site.

The map extract in Figure 5-1 (from the EIAR LVIA) shows the distribution of theoretical visibility the proposed turbines within the Hill of Uisneach LCA and the Hill of Uisneach LCA was scoped in for impact assessment. Visual receptors experiencing panoramic views from the Hill of Uisneach were also scoped in for assessment in Table 12-9 of the Visual Baseline (Section 12.5) of the LVIA.

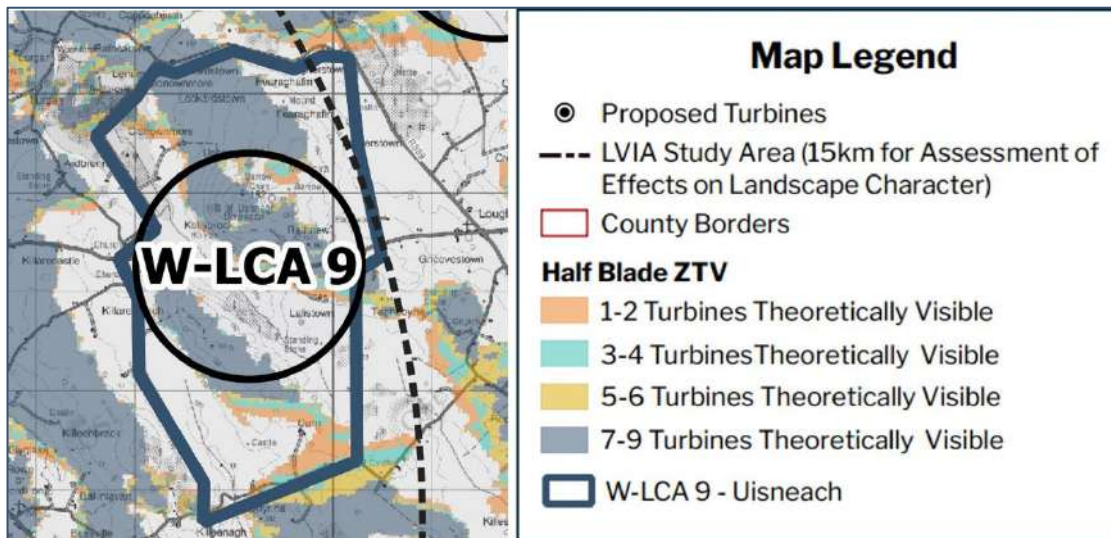


Figure 5-1 ZTV on Hill of Uisneach LCA extracted from Figure 12-14 of the EIAR

5.1.3 EIAR LVIA: Impact Assessments

LVIA Methodology Recap and UNESCO Guidance

The impact assessment methodology in the EIAR LVIA is set in detail within Appendix 12-1 of the EIAR, with a brief overview provided in Section 12.2 of the Chapter.

The impact assessment framework balances sensitivity with magnitude of change with detailed criteria set out in the Methodology Appendix 12-1 of the EIAR. This framework used is in alignment with best practice guidance, namely the GLVIA3 (LI & IEMA, 2013) and EPA 2022 guidance for EIAR. As reported previously in Section 3.3 of this Technical Report, the impact assessment methodology and framework used for the EIAR LVIA, and the aforementioned guidelines are aligned with recommendations set out in Guidance and Toolkit (UNESCO, 2022) and UNESCO Wind Guidance (UNESCO, 2022).

As per GLVIA3 (LI & IEMA, 2013), Landscape effects and Visual effects should be separate impact assessments. The EIAR LVIA therefore assesses the impact of the Proposed Development on the physical fabric and character of the landscape of the Hill of Uisneach and the LCA, then separately the visual impact affecting visual amenity as experienced by visual receptors visiting the Hill. These effects are discussed in Section 12.7.3 of the EIAR LVIA where the likely significant effects during the Operational phase are reported.

Landscape Effects in the EIAR LVIA

Section 12.7.3.1.2 in the EIAR LVIA discusses the ‘Effects on Landscape Receptors of High Sensitivity’. The following is reported in relation to the Hill of Uisneach.

“The Hill of Uisneach is a Landscape of Very High sensitivity on account of its cultural heritage value and relevant designations in the WCDP, reported previously in Section 12.4. The nearest proposed turbine is located approx. 8.8km west of the summit of the Hill and will not materially alter the landscape of the Hill of Uisneach itself and only perceptual effects on the character of the landscape of the Hill will potentially occur. As illustrated in the visuals below, a landscape of highly vegetated and undulating farmland provides a substantial physical buffer between the Hill of Uisneach itself and the Wind Farm Site.

*Whilst the proposed turbines will be visible from elevated vantage points on the Hill, the proposed turbines will not alter the immediate setting, appearance and context of monuments at the Hill of Uisneach and its immediate landscape. There are large areas of the Hill where the proposed turbines are unlikely to be seen. As noted in the landscape baseline, the Hill has no specific cultural association with the landscape of the Wind Farm Site and there is no discernible connectivity between the Hill of Uisneach and any heritage monuments within the EIAR Site Boundary. The proposed turbines do not interfere with any visual connectivity between the Hill of Uisneach and other important heritage sites of prominence in the area. An assessment of visual effects on the scenic amenity at the Hill of Uisneach is discussed and reported in the following section – Visual Effects (Operational Phase). On balance, it is deemed there will be a **‘Moderate’** effect on the landscape character of the hill and the Hill of Uisneach LCA (See Appendix 12-2 & Discussion of LCAs in the following section).”*

A comprehensive impact assessment of the Hill of Uisneach LCA is included in Appendix 12-2, but discussion of landscape effects was included in Section 12.7.3.1.3 with the overall residual landscape effects being ‘Moderate’.

Visual Effects in the EIAR LVIA

The assessment of visual effects of the proposed turbines as experienced from receptors at the Hill of Uisneach was informed by the use of a ‘rendered wireline’ due to the restrictions imposed by the landowner. The production of the rendered wireline and the impact assessment of it is set out in detail in ‘Appendix 12-3 Photomontage Assessment Tables’.

The discussion of visual effects was also included in Section 12.7.3.2.4 of the EIAR LVIA – Visual Effects on visual receptors in County Westmeath. This included the following text:

“It is highly likely that the constituent elements of the landscape view visible from the Hill of Uisneach will be of a similar nature to the open views over rolling vegetated farmland as presented in VP13 (and AltVP D in Appendix 12-5), therefore descriptions of the baseline landscape in Appendix 12-3 were also influenced by the photographic imagery of the ‘Existing View’ presented for this viewpoint (as well as imagery shown in Google Street View). In the context of the photomontage booklet (views presented at 90° and 53.5°), the Rendered Wireline enables a visual impact assessment to be conducted that addresses the scale, form and arrangement of the proposed turbines within views from the Hill. The scaling and modelling of turbines in the Rendered Wireline is consistent with all other photomontages, ultimately enabling a robust visual impact assessment.

Viewpoint 16 has been given a Very High sensitivity rating on account of its location at a protected monument of National importance, within an LCA of Very High sensitivity, and also the panoramic views from the top of the Hill which are protected in the WCDP. All turbines of the Proposed Development are likely to be visible from the top of the Hill of Uisneach where open views are permitted to the west. As shown by the Rendered Wireline, the proposed turbines appear as a neat linear array across the background of the view. At a distance of approximately 8.8km to the nearest proposed turbine (T7), they are seen as small background features and comprise a small horizontal extent in the panoramic landscape view and the magnitude of change was deemed to be ‘Slight’.

Residual visual effects were deemed to be ‘Moderate’ from Viewpoint 16. The proposed turbines are viewed as a neat, compact and coherent development within an otherwise expansive panoramic view, and as detailed previously in Section 12.7.3.1.2 there is a substantial landscape buffer between the Hill of Uisneach and the Wind Farm Site.

5.2 LVIA: Further Information

The further information provided in this Section includes additional analysis and discussion on the following topics supported by additional mapping, visibility analysis, graphic visualisations and photomontage visualisations:

- Review of Geographic Context and Hill of Uisneach Policy Designations;
- Analysis of WCDP Protected View 36, the 360° panorama at St Patrick’s Bed;
- Analysis of visibility from the western aspect of the Hill and views from the Skyline Ridge;
- Analysis of visibility from specific monuments on the Hill of Uisneach;
- Analysis of visual links with the wider cultural landscape to a distance of 25km from the Hill of Uisneach itself;
- Analysis and discussion of supplementary photomontage visualisations included in the Appendix 4 Photomontage Booklet;
- Analysis of effects on the appearance and character of the Hill of Uisneach;
- Analysis of potential cumulative effects of other wind energy developments within 25km of the Hill of Uisneach

In alignment with Note 1 of the UNESCO Wind Guidance (UNESCO, 2022) additional maps have been produced to provide greater spatial context to inform the impact assessment. The maps presented and discussed in this section were produced in GIS to illustrate the geography of the Proposed Development relative to the Hill of Uisneach and its sensitive attributes, including relevant heritage sites and features of interest in the wider cultural landscape. The mapping also includes technical outputs generated in GIS such as topographic modelling and Zone of Theoretical Visibility (ZTV) modelling, as well as the location of photomontage viewpoints included in Appendix 4 Photomontage Booklet. The discussion in this section also includes visibility analysis which has been informed by additional site visits, drone imagery and the supplementary photomontages included in Appendix 4 Photomontage Booklet.

The technical methodology used for production of mapping analysis and photomontage production are reported previously in Section 3.6.

5.2.1

Geographic Context and Hill of Uisneach Policy Designations

The map shown below is ‘Figure 13.2’ extracted from Chapter 13 of the WCDP. This map illustrates the boundary of the Buffer Area which delineates an area designated as a High Amenity Area in the WCDP.

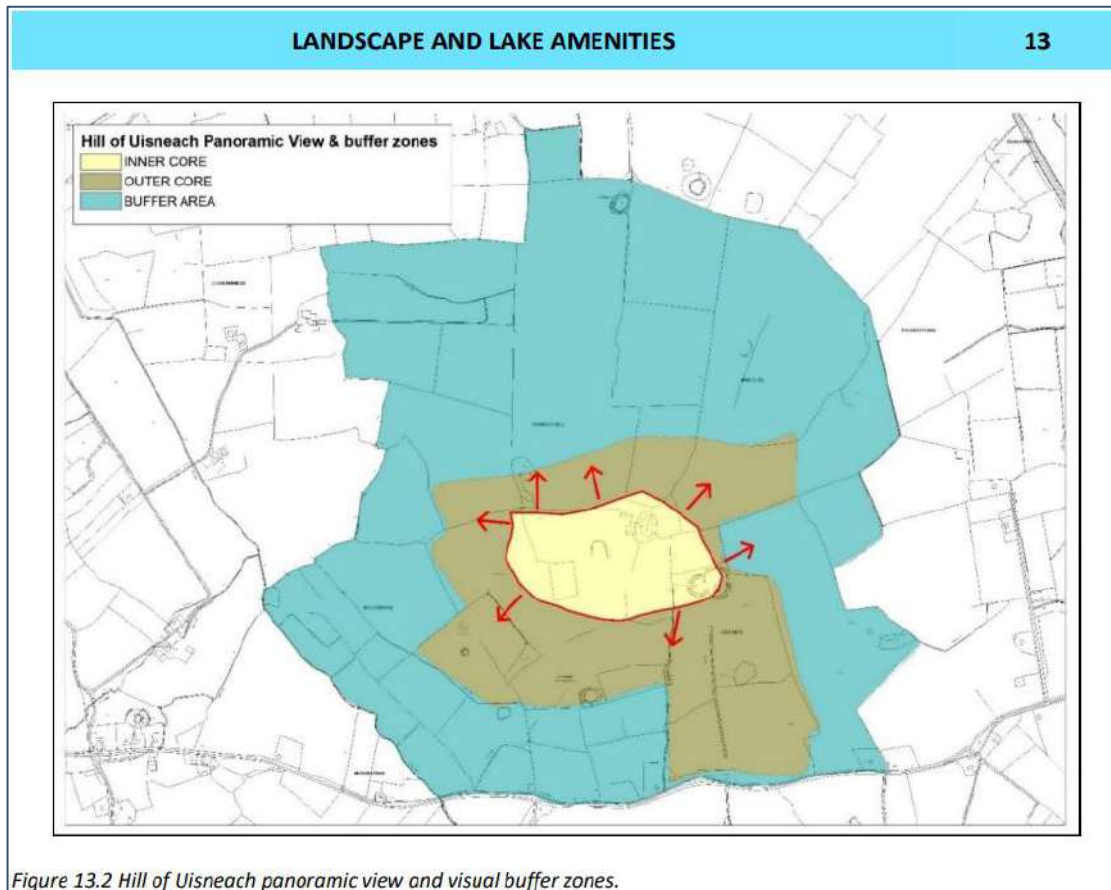


Figure 13.2 Hill of Uisneach panoramic view and visual buffer zones.

Figure 5-2 Extract from the Westmeath County Development Plan 2021-2027 (WCDP)

WCDP states the following text in relation to this landscape and its Buffer Area:

“The extent of the High Amenity Area at the Hill of Uisneach is highlighted in turquoise above and contains Core and Buffer Areas with associated protective policies. From a landscape perspective, core and buffer areas are identified as locations where any development is likely to significantly alter the appearance and context of monuments [Core] and areas where developments should be carefully scrutinised to anticipate and avoid significant changes to landscape context of the monuments or to the inter-relationship between the core area and relevant monuments in the surrounding landscape.”

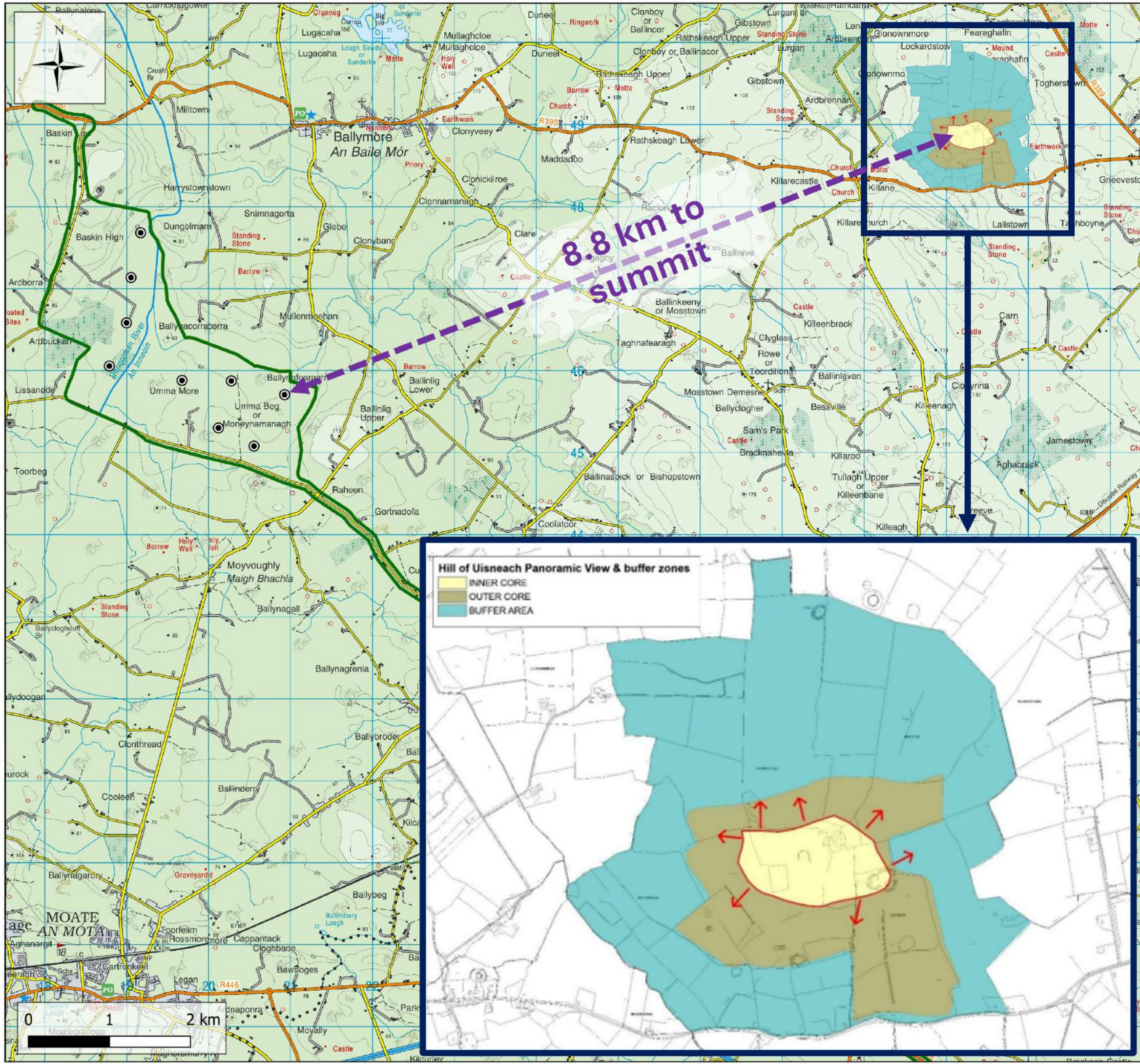
The nearest proposed turbine is located approximately 8.1km to the west-south-west from the outer Buffer Area at its closest point.

As established previously in the EIAR and in this Technical Report, the Proposed Development will not alter the appearance and context of monuments in their immediate setting. In the absence of any UNESCO-endorsed spatial buffer from the site, the Buffer Area shown above is the physical landscape buffer set out in the local planning policy to ensure protection on the appearance of monuments. The red line on the map illustrates the location of the perimeter ridgeline encircling the Hill from where

there are panoramic landscape views which are protected. The red arrows indicates the direction and of focus of views from this skyline ridge. The WCDP states the following in relation to these views:

“...further protection has been afforded to the site by designating the area as a High Amenity Area with views from the perimeter skyline ridge identified as a Protected Panoramic View. Figure 13.2 below indicates the protected panoramic view indicated by the red dash line and arrows.”

Figure 5-3 below illustrates the location of the 9 No. proposed turbines of the Proposed Development and also the EIAR Site Boundary which encircles the Wind Farm Site. The nearest proposed turbine (T7) is located approximately 8.6km west-south-west from the perimeter ridgeline encircling the Hill from where the panoramic landscape views are located, as indicated in Figure 13.2 of the WCDP. The actual summit of the Hill at Uisneach is inset from the perimeter ridgeline, therefore located approximately 8.8 km east-north-east from the nearest proposed turbine (T7), as illustrated by the map below



Map Legend

- EIAR Site Boundary
- Proposed Turbines
- Hill of Uisneach Landscape Character Area (extracted from Figure 13.2 of Westmeath County Development Plan 2021-27)
- Inner Core
- Outer Core
- Buffer Area
- Protected Panoramic Views from Perimeter Skyline Ridge

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Drawing No.

Figure 5-3

Drawing Title

Proposed Development & Hill of Uisneach Policy Context

Project Title

Umma More - Response to Submissions

Scale

1:45,000

Project No.

201050-d

Date

14.05.2025

Drawn By

AR

Checked By

JW

5.2.2

WCDP Protected View 36 – 360° Panorama at the Summit of Uisneach and St Patrick’s Bed

The summit of the Hill of Uisneach is the only single location on the Hill where there is potential for full 360-degree panoramic views of the surrounding landscape adjacent to the monument St Patrick’s Bed. The views from the ‘perimeter skyline ridge’ indicated by the red line in the figure below typically include long ranging panoramic views of the working landscape but are not 360-degree panoramas and are only focused in one general direction (north; south; east; west), views from the skyline ridge mostly comprise panoramas with less than a 180-degree field of view.

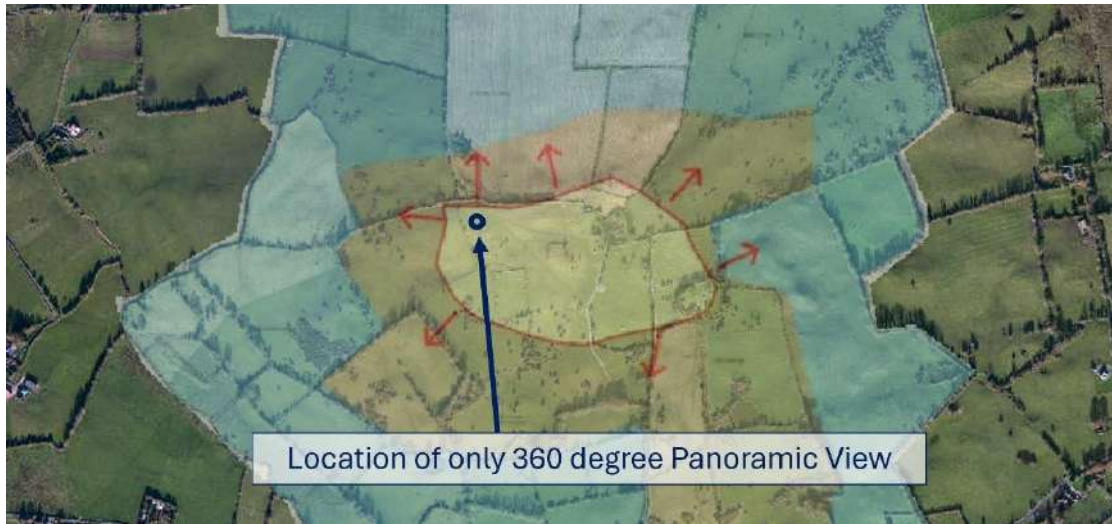


Figure 5-4 Map of Buffer Areas, Skyline Ridge and protected views overlaid aerial imagery showing location of 360 panoramic view

The protected 360 panoramic view is described in Appendix 5 of the WCDP – ‘Scenic Routes and Protected Views’. This description in the WCDP is accompanied by images from the summit of the Hill showing the 360 views. These images and description from Appendix 5 of the WCDP are reproduced below in Figure 5-5, the images have been annotated to show the exact location of the proposed turbines within the 360-degree views.

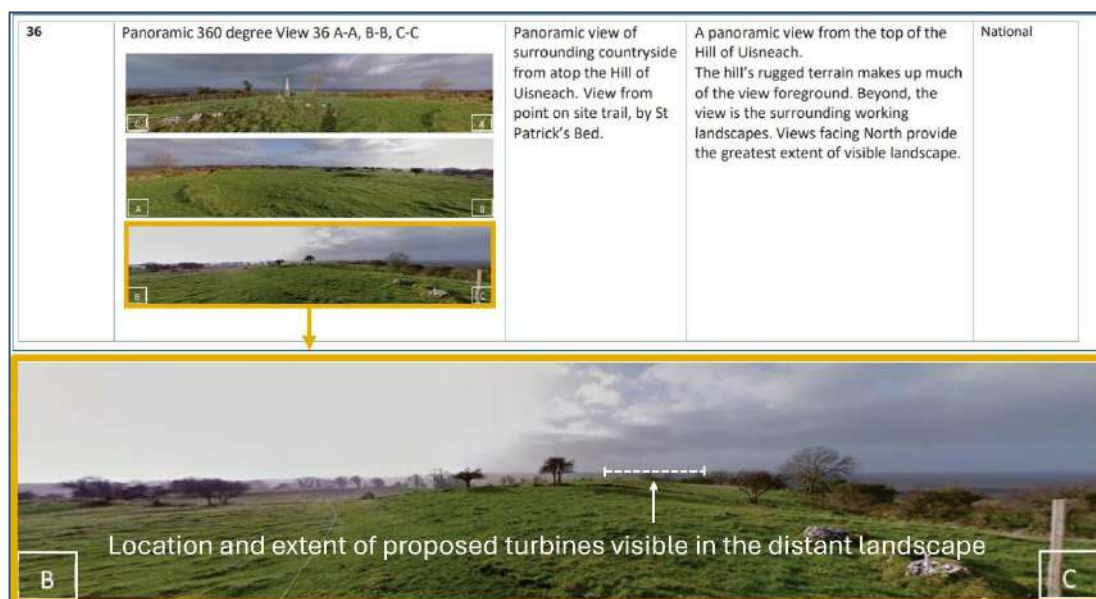


Figure 5-5 Description of the protected panoramic view from the Hill of Uisneach summit and location of proposed turbines in view-B-C.

Appendix 5 of the WCDP splits the 360 protected panoramic view into 3 No. separate panoramic images, each image equating to approximately a 120-degree field of view with the following labelling:

- C-A - top image showing 120° view to the north;
- A-B – centre image showing 120° view to the south and east;
- B-C – lower image showing 120° view to the south and west;

As shown in Figure 5-5 above, the proposed turbines will be visible in the bottom image B-C which comprises views from the south (left of image) to the north-west (right of image). Appendix 5 states the following description of the view:

“The hill’s rugged terrain makes up much of the view foreground. Beyond, the view is the surrounding working landscapes. Views facing North provide the greatest extent of visible landscape.”

Information collected during site visits, and analysis of the imagery below show that the view in the direction of the proposed turbines is where the landform rises most prominently relative to the vantage point of the protected 360 view. Consequently, the landform and ‘rugged terrain’ of the Hill and other constituent features of the foreground such as hawthorn trees makes up a substantial proportion of the view in the direction of the proposed turbines, particularly compared to other directions seen from this vantage point where there are longer and wider ranging landscape views. The proposed turbines will be visible in the distant working landscape from this vantage point. However, the characteristics of the views and immediate landscape setting show that the proposed turbines will not be prominent within a viewshed comprising open, panoramic and long ranging landscape views. The absence of these attributes within this line of sight slightly reduces the scenic quality of views in the direction of the proposed turbines compared with other longer and wider ranging portions of the 360 panoramic views for example views directly north where views are expansive and unencumbered by terrain and elements of the foreground.

The image in Figure 5-5 is limited due to the poor resolution of the background image and lack of landscape context. This landscape context has been determined by the impact assessment team via other means, including verification during site visits and capture of drone imagery from above the location of this vantage point. Due to access restrictions no photomontage data was captured from the lands of the Hill (see Section 3.4), therefore it was not possible to capture 360 panoramic imagery from St Patricks Bed monument where the 360 panoramic view is located. However, a drone was used to capture 360-degree imagery from the airspace above this location, approximately 15 metres above ground level. This drone imagery (captured by a fully licenced drone pilot) was stitched to create a 360 panorama and used to produce a photomontage which is shown as Viewpoint 19 in the Appendix 4 Photomontage Booklet. A wide-angle photomontage comprising a 90° field of view from Viewpoint 19 is reproduced below in Figure 5-6 showing the panoramic context of the landscape and matching wireline. A 53.5° field of view from Viewpoint 19 is reproduced below to show greater clarity on scale and form of the proposed turbines relative to the view. The reader is recommended to read this Technical Report in combination with the printed A1 banner Photomontage Booklet and hold it at arm’s length.



Figure 5-6 Viewpoint 19 Photomontage and matching wireline within a 90 degree Field of View from the Appendix 4 Photomontage Booklet: Imagery captured from a drone located 15 metres above St Patricks Bed – Not Representative of actual views experienced by Visual Receptors



Figure 5-7 Viewpoint 19 within a 53.5-degree Field of View from the Appendix 4 Photomontage Booklet: Imagery captured from a drone located 15 metres above St Patricks Bed – Not Representative of actual views experienced by Visual Receptors

The drone photomontage provides great context in understanding where the proposed turbines are located relative to the Hill and the constituent elements and features of the intervening landscape. However, it must be clarified and strongly emphasised that imagery captured from the drone **does not** represent the views experienced by visual receptors on the ground at St Patricks Bed, the views and aspect of view are more accurately presented in Figure 5-5 above. The drone photomontage and the stitched 360 imagery (divided into 3 no. 120° views) captured from the drone is analysed and discussed in further detail in Section 5.2.4 below, particularly in the context of the geography and sight lines towards other cultural heritage sites located within the wider landscape setting.

The site visits (with the aid of the visualisation shown in Figure 5-5 above) determined that the proposed turbines will have much lesser visual prominence when experienced on the ground at the location of the protected panoramic view than is shown in Viewpoint 19 (drone photomontage) which is located 15 metres above the ground level. The proposed turbines comprise a very small portion of the 360 panoramic view and are positioned in a location where elements of the foreground comprises the greatest part of the visual composition of views and greater potential to interfere and obstruct longer ranging views in comparison with the other fields of view from this specific vantage point – View 36 in the WCDP. Ultimately, while the proposed turbines will be seen from protected view 36 and will impact the amenity of visual receptors, it will not significantly impact the key scenic sensitivities of the 360° view which are the combination of rugged terrain in the foreground and the open panoramas of the surrounding landscape as per the description of Protected View 36 in the WCDP. From a visitor's perspective (visual receptor), the proposed turbines will not significantly detract from the visitor experience of visiting the summit part of the Hill of Uisneach (Protected view 36) or the monument at St Patrick's Bed, particularly considering the landscape context, small scale of the proposed turbines set back 8.8km in the distance, as well as the small horizontal portion of the 360° view in which they will be seen. The likely impact of the proposed turbines on setting of monuments is addressed in Section 6.5.

The greatest potential for visual impacts from the Hill of Uisneach and its monuments will occur on the western aspect of the Hill, beyond the treeline and field boundary to the west of St Patrick’s Bed. Visibility and the nature of the views towards the proposed turbines experienced along the western extent of the skyline ridge are analysed and discussed further in the following section.

5.2.3

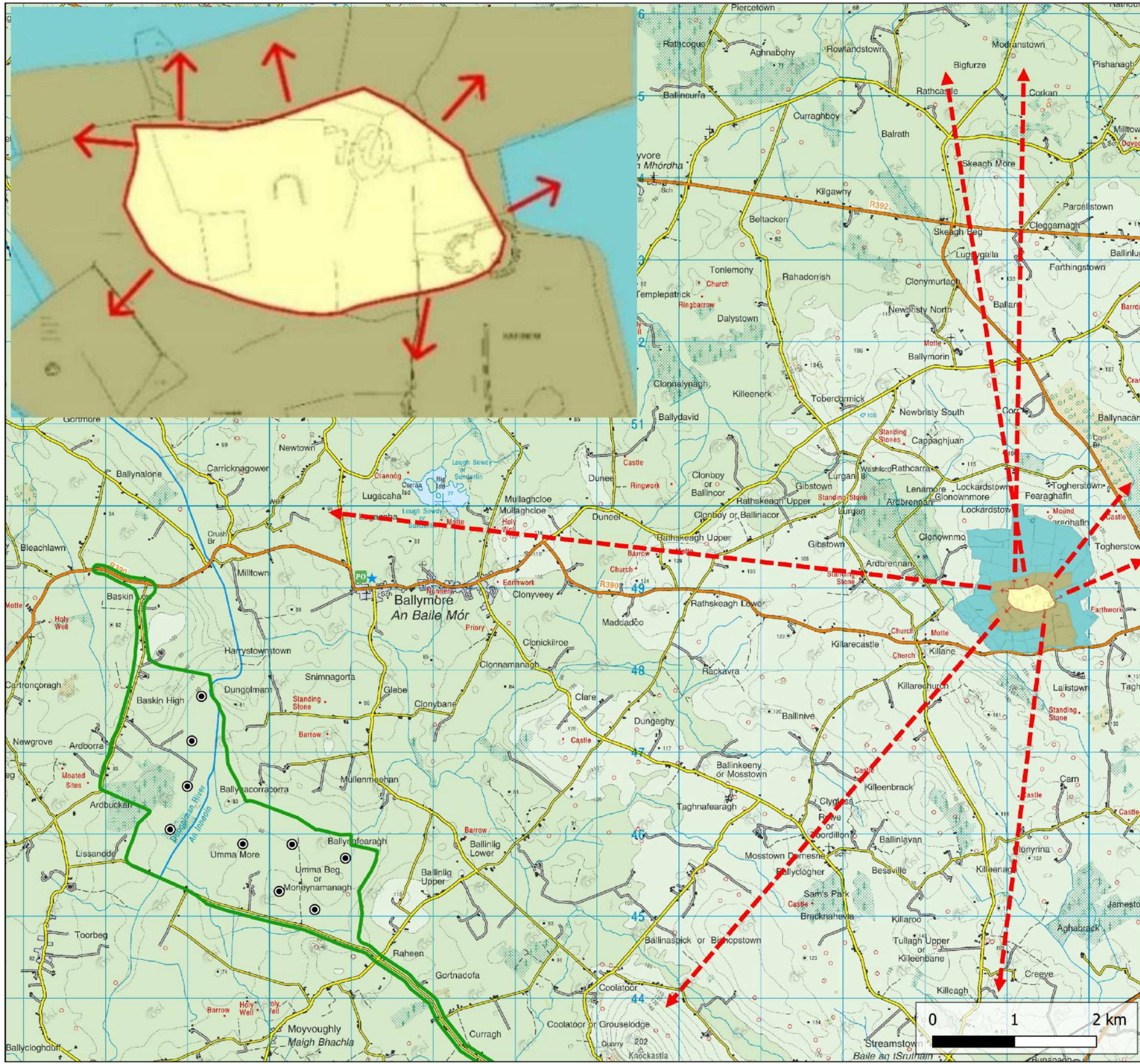
The Western Aspect of the Hill of Uisneach and Skyline Ridge: Visibility Analysis

Three figures below were produced to illustrate the orientation of views from the skyline ridge at the Hill of Uisneach (as per Figure 13.2 of the WCDP) and the actual extent of the visual envelope of the proposed turbines.

The three figures illustrate the orientation of protected views from the skyline ridge as per Figure 13.2 of the WCDP. These red arrows indicate the origin and directional orientation of the protected views in line with the WCDP. Whilst there are no specific descriptions of the actual focus or origin of these views in the WCDP, the red arrows within the map (Figure 13.2 - reproduced within the figures below) are perceived to be quite specific and deliberate in their projection and orientation. For example, the arrows are not all perfectly directed outwards perpendicular to the lines delineating the skyline ridge.

The figures below show the location of the proposed turbines relative to the arrows depicting protected views from Figure 13.2 of the WCDP and they are clearly not the object or direct focus of the view, however they are located between two sight lines, one to the north-west and one to the south-west.

In all instances, the red arrows indicating the direction of protected views in Figure 13.2 of the WCDP have their origin at elevated vantage points and are directed towards the most open, long ranging and expansive panoramic views of the wider working landscape surrounding the Hill. The specific object of the views shown by the red arrows are not explicitly set out in the WCDP. However, some of the arrows are notably directed at other distinctive features and landmarks of the wider landscape. For example, the view to the south-west is clearly directed at the distinctive peak of Knockastia which includes sites of cultural heritage importance. The proposed turbines are located to the north of this line of sight and will not interrupt this viewshed or visual connection with Knockastia. The following section of this report (Section 5.2.4) addresses the topic of sightlines and viewsheds in relation to potential visual and historic connection of Uisneach with many other monuments and sites of relevance in the wider landscape setting. With regards to the protected panoramic views on the skyline ridge, the proposed turbines are only likely to be visible from the very western extent of the Hill and two of the arrows shown in Figure 13.2 of the WCDP.



Map Legend

- EIAR Site Boundary
- Proposed Turbines
- Hill of Uisneach Landscape Character Area
(extracted from Figure 13.2 of Westmeath County Development Plan 2021-27)
- Inner Core
- Outer Core
- Buffer Area
- Protected Panoramic Views from Perimeter Skyline Ridge

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Drawing No.

Figure 5-8

Drawing Title

**Indicated Direction of Protected Views in
Westmeath County Development Plan**

Project Title

Umma More - Response to Submissions

Scale	Project No.	Date	Drawn By	Checked By
1:45,000	201050-d	26.05.2025	AR	JW



Figure 5-9

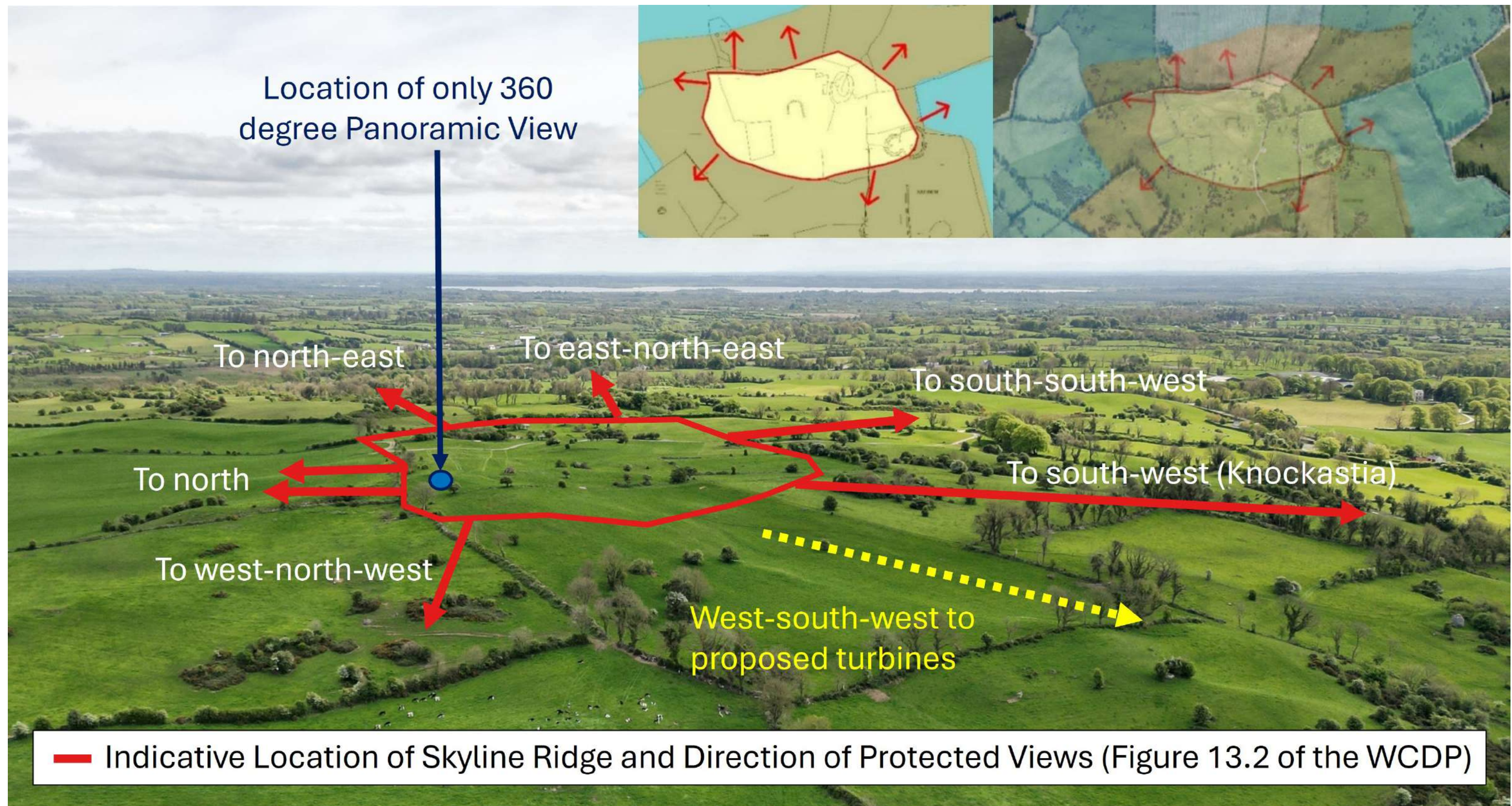
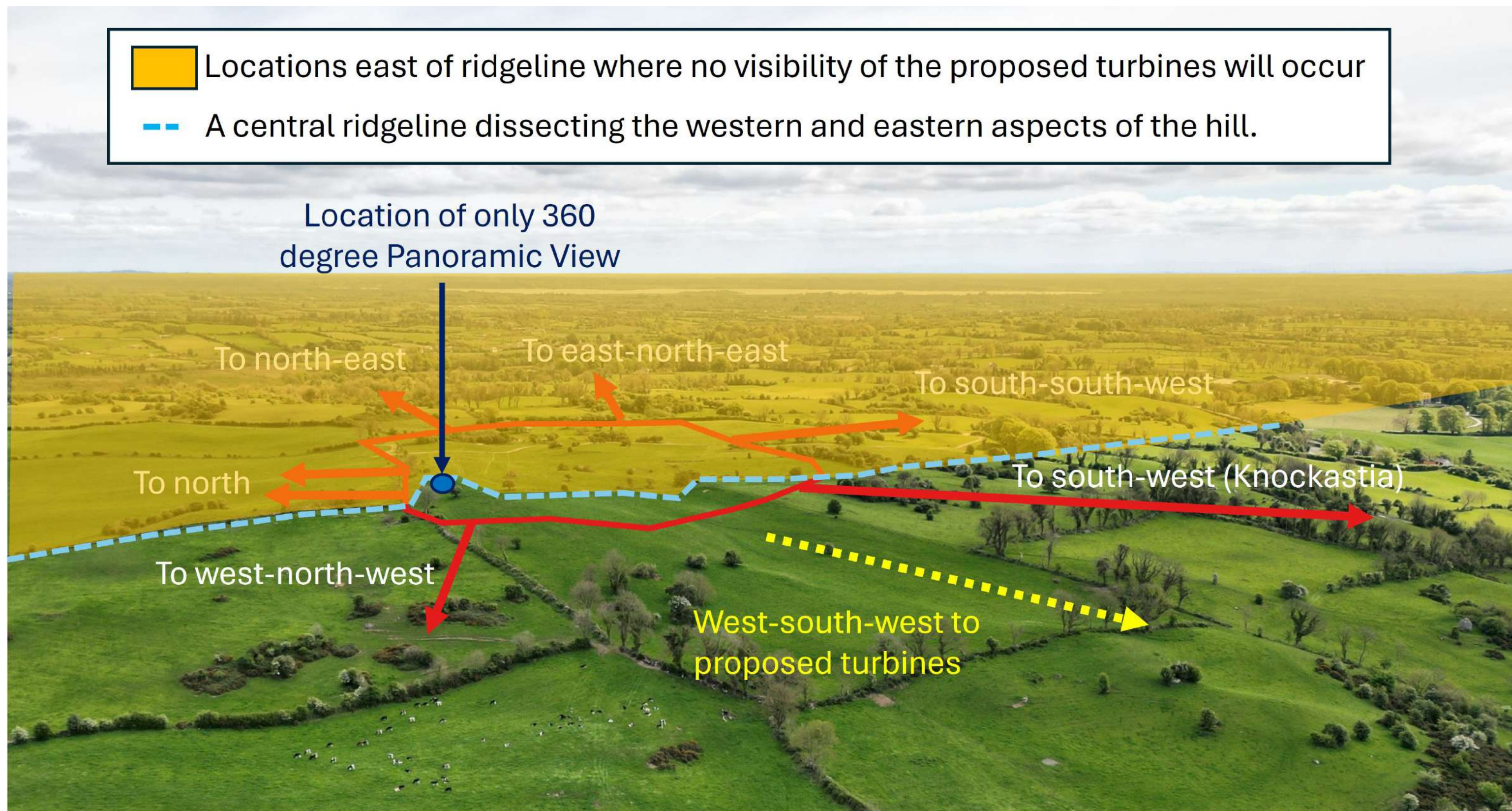


Figure 5-10



A ZTV map showing the theoretical visibility of the proposed turbines across the lands at the Hill of Uisneach was included in the EIAR LVIA (Figure 12-33 of the EIAR LVIA). Full theoretical visibility of the proposed turbines is widespread across the western portion of the Hill. As reported in the EIAR, the ZTV is modelled using a Digital Terrain Model (DTM). The DTM is a model of relatively coarse resolution and does not account for above ground features of the landscape or localised undulations in the landscape. The ZTV is therefore a bare ground scenario, and due to the precautionary parameters used when modelling the ZTV, it is typically most accurate as a tool to determine where visibility will **not** occur. Where theoretical visibility does occur, this needs to be verified and analysed further by other measures. The actual visibility of the proposed turbines from the Hill of Uisneach is far less than illustrated by the ZTV. Excepting from the single vantage point at St Patricks Bed (previous section) visibility will only occur to the west of the ridgeline and field boundary to the west of the summit. The actual reality of where visibility will occur is shown by Figure 5-10 above which was informed by site visits, topographic modelling and analysis of drone imagery.

5.2.4 Visibility from Specific Monuments on the Western Aspect of the Hill of Uisneach

Visibility of the proposed turbines has greatest potential to occur from two national monuments located on the western aspect of the Hill, these include:

- WM024-061— Barrow - Pond Barrow containing The Cat Stone;
- WM024-069— Ringfort - Rath

Visibility Analysis of proposed turbines from WM024-061 Pond Barrow containing The Cat Stone

The Cat Stone (RMP WM024-061, NM no 155) is located to the south-west of the summit at much lower elevation than the skyline ridge discussed previously. The neighbouring hill to the south-west (peak is the location of VP18) forms a small valley with the Hill of Uisneach and there is a greater sense of enclosure around the Cat Stone compared with the more elevated locations near the summit. The Cat Stone is mostly experienced within its landscape setting from the north-north-east or from immediately adjacent to the monument. The proposed turbines are generally located in the very periphery of the key views when experiencing the monument. However, there will be a clear line of sight in the direction of the proposed turbines if standing directly east of the monument where it is enclosed by a dense cluster of bushes and trees. A wireline generated from the Cat Stone was presented in Figure 12-34 of the EIAR LVIA which shows the monuments are partially obscured from view by the intervening landform from this perspective. The proposed turbines will therefore be partially visible in the distant background of views which are not key foci in this location. The visual impact on the experience of visual receptors at the Cat Stone will be far less than the impact shown from any of the representative viewpoints or from elevated vantage points at the skyline ridge. The impact of the proposed turbines on the setting of the Cat Stone monument is addressed in the Archaeology and Cultural Heritage Assessment included in Section 6.

Visibility Analysis of proposed turbines from WM024-069 Ringfort

This roughly circular ringfort (RMP WM024-069) is designated as a national monument (No. 155). It is located in Kellybrook townland within a gently sloping field from east to west and defined by a low bank with trees growing on it. The site is shown on historic mapping and Macalister (an archaeologist who excavated various monuments at the Hill throughout the 1920s and 30s) suggests that it may be associated with an ecclesiastical site but the evidence does not support this claim (SMR file 2/04/1976). This is a low-lying monument on the south-western aspect of the Hill. No visibility of the proposed turbines is likely to occur from this monument due to visual screening from localised topography and mature vegetation along a multitude of field boundaries in the intervening landscape.

5.2.5

Visual links with the Wider Archaeological and Cultural Landscape Setting

Research was conducted to identify relevant monuments, landscape features and sites of heritage interest in the wider archaeological and cultural landscape setting surrounding the Hill of Uisneach within a 25km radius from the Hill of Uisneach itself (See Section 4.2.1 previously). Many sites were identified and their connection scrutinised through consultation of a range of documents which are set out in Section 3.3 of this report. The following locations are mapped and presented in Figure 5-11 relative to the Hill of Uisneach and the Proposed Development.

Table 1 Relevant Monuments in the wider landscape with a cultural or visual connection to the Hill of Uisneach

Name	Description & Source	Location	Connection with Uisneach
Killare Church	Church WM024-057—founded in the late 6th century by Áed Mac Bricc who built three churches at Killare.	1.3 km southwest of Hill of Uisneach	The proximity of Killare to Uisneach indicates a potential continuity of sacred landscape from pre-Christian to Christian times.
Conragh	Church of Conry (WM025-005001-), located within an ecclesiastical enclosure (WM025-005002-) on a natural rise of ground	2.2 km northeast of Hill of Uisneach	The proximity of Conragh/ Conry to Uisneach indicates a potential continuity of sacred landscape from pre-Christian to Christian times.
Knockastia Hill Burial Site	Bronze Age Burial Site (WM031-015—) on the summit of Knockastia Hill	7.2 km southwest of Hill of Uisneach	Comparable to the Hill of Uisneach given its prominent hilltop location and burial monuments
Cró Inis	Crannóg (WM025-150—) and Tower House (WM025-150001-) located on Lough Ennell	9.6km southeast of Hill of Uisneach	One of the royal residences of the ‘Kings of Uisneach’, Clann Cholmáin. Suggested to be one of the royal sites of the Kings of Meath.
Slemain Mide	Probable battlefield of Gairech and Ilgaireach, referred to in the Tain Bo Cuailgne	10.7km northeast of the Hill of Uisneach	Assembly site of the Clann Cholmáin. Also, reputedly intervisible with Frewin Hill
Frewin Hill Barrow Cemetery	Burial monuments situated on the summit of Frewin Hill, with panoramic views in all directions	12.7km northeast of Hill of Uisneach	Comparable to the Hill of Uisneach given its prominent hilltop

			location and burial monuments
Croghan Hill Prehistoric Barrow	Prehistoric burial mound situated on the summit of Croghan Hill, with panoramic views of the surrounding landscape	24.1km southeast of the Hill of Uisneach	Comparable to the Hill of Uisneach given its prominent hilltop location and burial monument

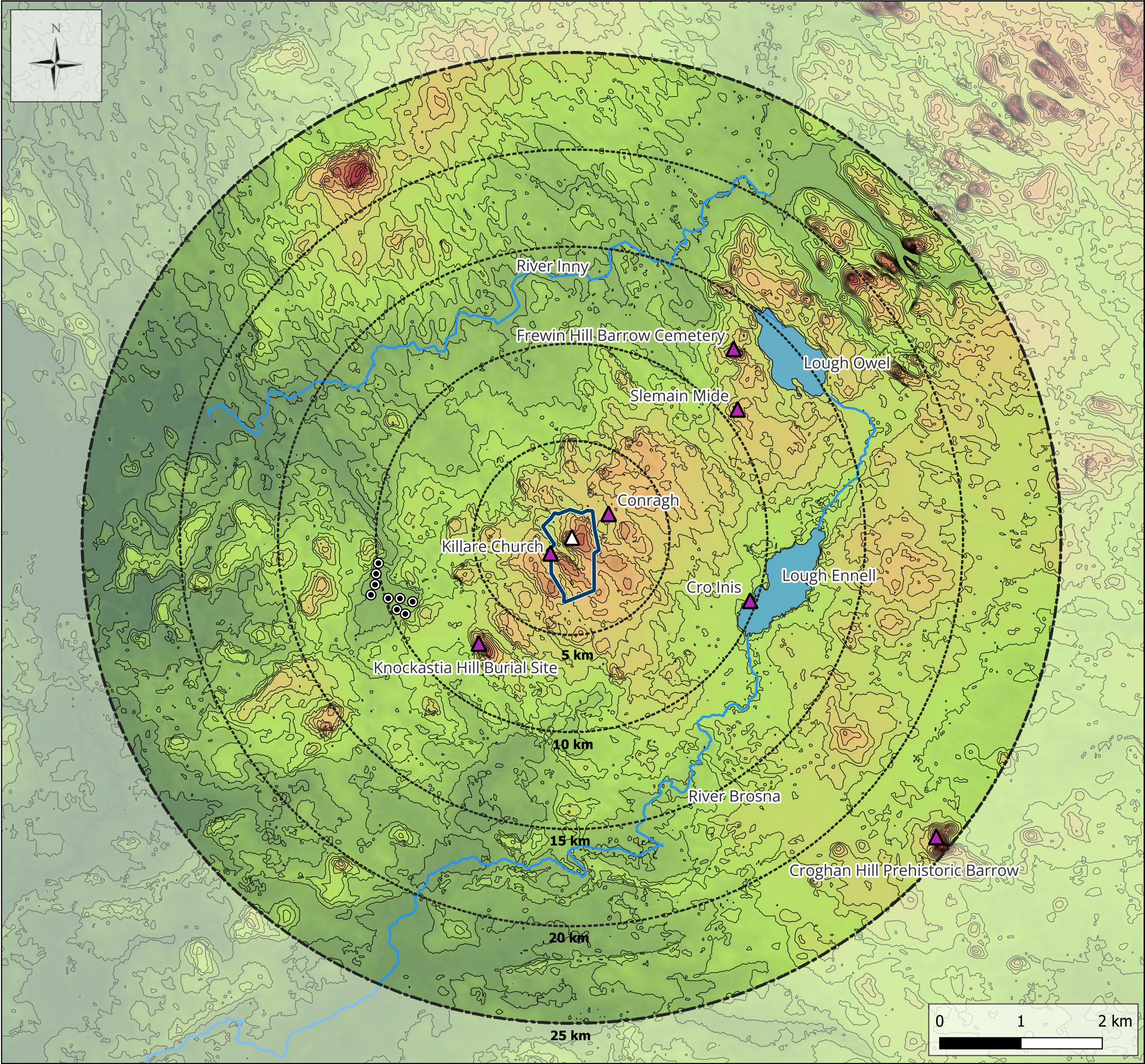
The Hill of Uisneach CMP includes the following excerpt which identifies heritage sites and features of the wider archaeological and cultural landscape setting:

***“Landscape:** While the Conservation Management Plan relates specifically to the Hill of Uisneach, it is recognised that the site and its immediate environs are best understood in the context of their wider archaeological and landscape setting. This includes nearby sites such as Killare Church and the many prehistoric burial monuments and standing stones, ringforts and castles that surround the Hill, as well as more distant natural features and monuments extending as far as Lough Owel and Lough Ennell, and the Inny and Brosna Rivers. Many of these sites have a historical, as well as a visual, connection with Uisneach, forming a wider web of significance.”*

The sites and features of the wider landscape setting mentioned in the excerpt above are also mapped in Figure 5-11 below. The map below shows the location of these sites which have a historic or visual connection to the Hill of Uisneach.

Further analysis of these relevant sites and features and the potential for infringement and impacts on the visual connectivity with the Hill of Uisneach were further analysed using the 360-degree panoramic imagery and the photomontage captured from above the summit of the Hill of Uisneach using a drone – Viewpoint 19. For complete context and understanding of the landscape and cultural links with the Hill of Uisneach and its cultural hinterland, the 360-degree field of view was split up into 3 No. images. This was completed in a similar way to the presentation of images in Appendix 5 of the WCDP where three fields of view were shown from Protected View 36 at St Patrick’s Bed. The images presented below are 3 No. separate stitched panoramic images, captured from the one location, above Protected View 36. Each image comprises a 120-degree field of view, with the three images totalling the full 360 degrees. The view towards the Proposed Development is a photomontage and includes an accurate rendering of the proposed turbines. Annotations are included and arrows where modelling software was used to geolocate these sites within the imagery, much like the process used for photomontage production. The three images are labelled as follows:

- Figure 5-12: A 120-degree stitched panorama centred on direction to the south-east
- Figure 5-13: A 120-degree photomontage view centred on the proposed turbines directly to the west-south-west
- Figure 5-14: A 120-degree stitched panorama centred on direction to the North



Map Legend

- 25km Buffer from Hill of Uisneach
- Hill of Uisneach Landscape Character Area
- Hill of Uisneach
- Proposed Turbines
- Relevant Cultural Heritage Monuments
- Lakes identified in Hill of Uisneach CMP (UAG, 2022)
- Lakes identified in Hill of Uisneach CMP (UAG, 2022)

Elevation Above Ordnance Datum (metres)

- 30
- 80
- 130
- 180

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Drawing No.

Figure 5-11

Drawing Title

**Topographical Features and Monuments
Map**

Project Title

Umma More - Response to Submissions

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	201050-d	10.09.2025	AR	JW





Figure 5-12 120-degree panoramic view captured from a drone above the Hill of Uisneach Summit: Left to the East, Right to the South. Field of View (FOV)



Figure 5-13 120-degree panoramic view captured from a drone above the Hill of Uisneach Summit: Left to the South, Right to the North-West – Includes photomontage of the proposed turbines. Field of View (FOV)



Figure 5-14 120-degree panoramic view captured from a drone above the Hill of Uisneach Summit: Left to the North-West, Right to the East. Field of View (FOV)

Geographically, only two of the heritage receptors identified have any potential to be impacted by the proposed turbines, in terms of their cultural and visual connection with the Hill of Uisneach due to their location relative to the Hill and the Proposed Development. Whilst the proposed turbines will not directly affect intervisibility between the following two sites and the Hill of Uisneach, the lines of sight are nearby, as shown in the mapping and visualisations presented above, these are.

- Knockastia - Bronze Age Burial Mound
- Killare Church - Ruined churches, a holy well and a graveyard

Knockastia

This assessment identified Knockastia as a landmark and site of cultural heritage importance with evidence supporting a cultural and visual link with the Hill of Uisneach. The heritage significance of Knockastia and its link with the Hill of Uisneach is discussed previously in Section 4.2.1 and later in Section 6. The proposed turbines will be seen to the north, or right-hand side, of the peak of Knockastia which can be seen in the wide-angle photomontage (120°) presented in Figure 5-13 above. Whilst the proposed turbines are visible in combination with Knockastia, there is substantial separation and setback both horizontally in the field of view and in terms of distance from the Hill. The visual relationship between Knockastia, the Hill of Uisneach and the proposed turbines is explored and discussed in further detail in the following section through analysis of the 3 No. representative photomontages.

Killare Church

Killare Church is located in the town of Killare approximately 1.3km south-west of the Hill of Uisneach, and approximately 7.4km east of the nearest proposed turbines. This assessment identified an assemblage of monuments at Killare Church as having heritage significance. The proximity of Killare to Uisneach indicates a potential continuity of sacred landscape from pre-Christian to Christian times. The heritage significance of the monuments at Killare Church and their links with the Hill of Uisneach are discussed previously in Section 4.2.1 and also later in Section 6. Considering the geography and different setback distances, the proposed turbines have no potential to effect intervisibility between the Hill of Uisneach and monuments at Killare Church. Also, ZTV mapping shows that there is a combination of no theoretical visibility and some theoretical visibility of the proposed turbines from the monuments at Killare Church. Following a site visit, it was verified that the proposed turbines will not be visible from these monuments and there will be no impact on their immediate setting. The visual relationship between Killare Church, the Hill of Uisneach and the proposed turbines is explored and discussed in further detail in the following section through analysis of the photomontages.

5.2.6

Analysis of Photomontage Visualisations in the Appendix 4 Photomontage Booklet

This section includes an analysis of the 3 No. Viewpoints included in the Appendix 4 Photomontage Booklet. The analysis of these viewpoints has informed the overall impact assessments in both landscape and visual terms included in Section 5.3 – Likely Significant Landscape and Visual Effects. The photomontages have been produced according to the standards set out in best practice guidance. This includes specific presentation specifications for printing on A1 banner sheets. For ease of reference, images of the 53.5-degree field of view are presented in text for each viewpoint, however, it is recommended to read the following analysis whilst consulting with the A1 Appendix 4 Photomontage Booklet and viewing the photomontages at arm's length in order to perceive the most accurate understanding of scale, context and potential impact.

In all instances, the proposed turbines are visible set back from the viewpoints, and by their nature the proposed turbines will not block or obscure views. It is highlighted here that these three viewpoints are

representative photomontages, required in mind of the Hill access limitations set out in Section 3.4. Viewpoint 17 and Viewpoint 18 are not located at the Hill of Uisneach, but from other nearby peaks in closer proximity to the Proposed Development than the Hill itself. Also, Viewpoint 19 was captured from a drone above the summit and is therefore not fundamentally representative of actual views experienced by receptors on the ground. In all three instances, the photomontages show a precautionary scenario, whereby visibility and visual impact of the proposed turbines will be greater than will be actually experienced by visual receptors on the ground at the Hill itself.

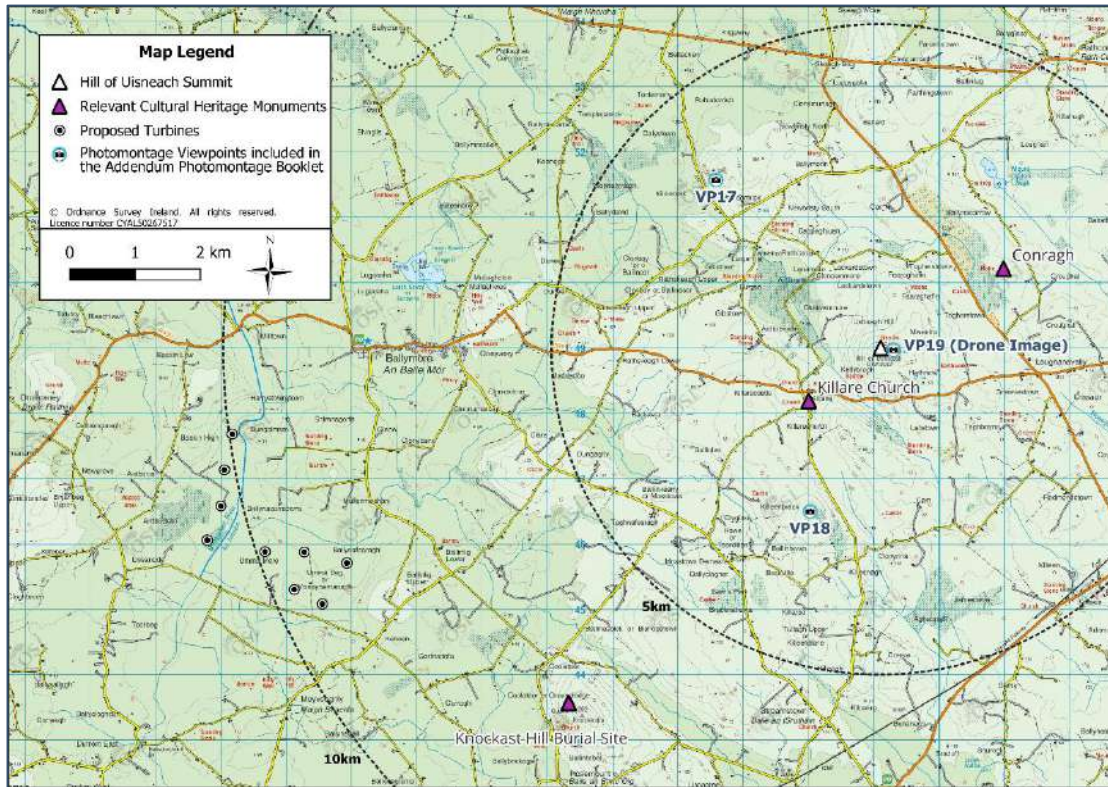


Figure 5-15 Location of Representative Photomontage Viewpoints: VP17, VP18 and VP19

The analysis includes a description of the photomontages and discussion of factors relating to landscape and visual impact. This includes relevant reference to the siting and design guidance for wind energy developments set out in the Wind Energy Development Guidelines for Planning Authorities (DoEHLG, 2006) – hereafter referred to as the ‘Guidelines’. Section 12.4.3 of the EIAR LVIA determined that the proposed turbines are sited in ‘Hilly and Flat Farmland Landscape Type’. Specific siting and design guidance for wind farms in this landscape type is included in Chapter 6 of the Guidelines. This siting and design guidance with regards to layout and spacing was incorporated in the early-stage design of the Proposed Development in order to optimise the visual aesthetic of the proposed turbines with respect to Hilly and Farmlands Landscape type and ensure a coherent arrangement of turbines when viewed from key vantage points such as the Hill of Uisneach.

Page 43 of the Guidelines states, “The creation of a “visual stacking” effect from a sensitive viewpoint should be avoided”. Visual stacking refers to a scenario where turbines are seen directly in front of each other from the orientation of a specific vantage point and where substantial overlap of turbine components has the potential to cause ‘visual confusion’. Visual stacking always occurs when viewing wind energy developments and variation can occur from just from small changes in the geographic positioning of the receptor and orientation of the view. As shown in the photomontages, no visual stacking occurs from any of the viewpoints (17, 18 and 19) representing views from the direction of the Hill of Uisneach. Only slight blade overlap occurs between two turbines in two instances (different turbines for different views, described in analysis below). In alignment with the Guidelines, the arrangement of turbines and regular spacing avoids potential for visual stacking when experienced from the sensitive viewpoints at the Hill of Uisneach.

Section 5.2.5 identified two sites of cultural connection with the Hill of Uisneach with the greatest potential to be impacted by the Proposed Development on account of the geography and nature of views. These include the Bronze Age Burial Site at the summit of Knockastia Hill and also monuments at Killare Church, both located south-south-west of the summit of the Hill of Uisneach. The peak of Knockastia is a landmark visible in all of the wide angle ('90° Proposed View' panoramas) photomontage views presented in the Appendix 4 Photomontage Booklet and is therefore discussed in the analysis of each viewpoint. Geographically, Killare Church is only potentially visible from the vantage point presented in Viewpoint 19 (VP19) and is therefore addressed and discussed in relation to VP19 and its likely visibility from receptors on the ground on the western aspect of the Hill of Uisneach.

Viewpoint 17 – Tobercormick (3.6Km NW of Hill of Uisneach summit)

This viewpoint was captured from an area of elevation (126 metres AOD) in the townland of Tobercormick, approximately 3.6km northwest of the Hill of Uisneach. The viewpoint is located 8.3km from the nearest proposed turbine.



Figure 5-16 Proposed View Photomontage at 53.5° from Viewpoint 17, Captured from an elevated vantage point in the townland of Tobercormick, approximately 3.6km north-west of the Hill of Uisneach Summit

The proposed turbines are framed between two slight peaks of elevation which form the western foothills of the South Central Hills Landscape Character Area. The turbine components are predominantly viewed above the horizon and beyond the ridgeline created by the two small hills in the middle distance. These ridgelines partially obscure the lower turbine components from view and substantially screen the towers of the four turbines seen to the right of the photomontage. The intervening landscape between the viewpoint and the proposed turbines comprises undulating landforms, small fields, dense boundary vegetation and occasional settlements. From this perspective, the proposed turbines are seen in a linear arrangement with regular spacing and are all viewed to be of the same scale and vertical positioning in the landscape. The distinctive peak of Knockastia is visible to the far left of the 90° wide angle field of view. From this perspective, there is a substantial degree of separation between the proposed turbines and Knockastia.

Translation of VP17 Relative to the Hill of Uisneach: Viewpoint 17 presents a slightly different geographic perspective and is located in closer proximity to the Proposed Development than the summit of the Hill of Uisneach. Consequently, compared with views from atop the hill itself, the proposed turbines are seen to be slightly larger in scale in VP17 than from the Hill due to the closer proximity. The horizontal arrangement of turbines seen in VP17 will be subtly different than what is shown from the Hill. The summit of the Hill of Uisneach is 182m AOD, and this viewpoint is approximately 56 metres lower in elevation, therefore, the effect of visual screening by intervening components of the landscape such as the ridgelines and vegetation will be slightly greater in VP17 than as experienced from vantage points at higher elevation on the western side of the Hill of Uisneach. However, there will be greater visual screening and disruption of views when experienced from the western aspect of the Hill of Uisneach, due to the prevalence of mature boundary vegetation visible in the foreground.

Viewpoint 18 – Killeenbrack (2.7Km SSW of Uisneach Summit)

This viewpoint was captured from an area of elevation (116 metres AOD) in the townland of Killeenbrack, approximately 2.7km south-south-west of the Hill of Uisneach. The viewpoint is located 7.1km from the nearest proposed turbine.



Figure 5-17 Proposed View Photomontage at 53.5° from Viewpoint 18, Captured from an elevated vantage point in the townland of Killeenbrack, approximately 2.7km south of the Hill of Uisneach summit

The proposed turbines are seen to be of slightly greater scale than is shown in Viewpoint 17 on account of the closer proximity of the viewpoint to the Proposed Development. Excepting the scale, the turbines are of similar layout and form as seen in Viewpoint 17, although the composition of turbines relative to surrounding landform and constituent components of the landscape differs from this perspective due to the lower elevation of this vantage point and different location. The turbines have an even vertical profile across the view with all nacelles visible above the distant horizon. There is slight overlap between the blades of turbines T6 and T5 but no visual stacking occurs. An abundance of dense vegetation is evident along field boundaries seen across the intervening landscape. The variation and number of field boundaries visible provides landscape context and enables perception of scale and setback distance which is evident between the viewpoint and the proposed turbines. The lower towers of the proposed turbines are partially obscured from view by the undulating landforms and vegetation of the intervening landscape slightly reducing the visual prominence of the turbines within this landscape setting. The landmark of Knockastia is visible to the far left of the 90° wide angle view.

Translation of VP18 Relative to the Hill of Uisneach: This viewpoint is located approximately 66 metres lower elevation than the summit of the Hill of Uisneach and is in closer proximity to the Proposed Development and is therefore subject to the same factors as was reported for Viewpoint 17. Also, this viewpoint is located at the peak of an elevated landform between the Hill of Uisneach and Knockastia, consequently, the relationship between the proposed turbines and Knockastia is more pronounced than would be experienced from the Hill of Uisneach itself. Irrespective of this, there is sufficient degree of visual separation between the proposed turbines and Knockastia from this viewpoint which does not compromise the integrity of views towards Knockastia and its setting.

Viewpoint 19 – Drone View 15 metres Above St Patrick's Bed at Hill of Uisneach Summit

This viewpoint was captured from a drone, approximately 15 metres above the summit of the Hill of Uisneach. The image was captured directly above the monument of St Patrick's Bed. The viewpoint is located 8.8km from the nearest proposed turbine.



Figure 5-18 Proposed View Photomontage at 53.5° from Viewpoint 19: this comprises drone imagery captured approximately 15 metres above the summit of the Hill of Uisneach. The image was captured directly above the monument of St Patrick's Bed.

The proposed turbines will be seen as a linear array beyond the foothills of the South Central Hills which comprise the undulating farmlands visible in the middle distance. The turbines are all seen to be the same scale with an even vertical profile relative to the distant horizon. They form a coherent arrangement with relatively even spacing and only two turbines having a minor overlap of blades from this perspective. In line with the Guidelines, no visual stacking occurs from this viewpoint, which presents a field of view which is most geographically representative of high sensitivity visual receptors at the Hill of Uisneach. The turbines are set back beyond slight undulations and mature vegetation, which partially screens the lower portions of the turbine towers, reducing their visual prominence in the landscape. Considering the scale of the proposed turbines at this distance, and their visual coherence as a collective group of turbines comprising a relatively small horizontal extent of the view, they are well absorbed and accommodated within the expansive, wide and long-ranging landscape views.

Knockastia is located to the far left of the 90° wide angle view. As was the case for VP17 and VP18, a degree of visual separation is evident between the proposed turbines and the distinctive peak of Knockastia. In the case of Viewpoint 19, which is at greater elevation than VP17 and VP18, the profile of distant landforms are of greater visual distinction owing to the longer ranging views and elevated vantage point. In this regard, the separation between the proposed turbines and Knockastia from the summit of the Hill of Uisneach is accentuated and counterbalanced by the distant hill of Knockdomny which sits within the landscape between Knockastia and the proposed turbines, as shown in Figure 5-19 below.

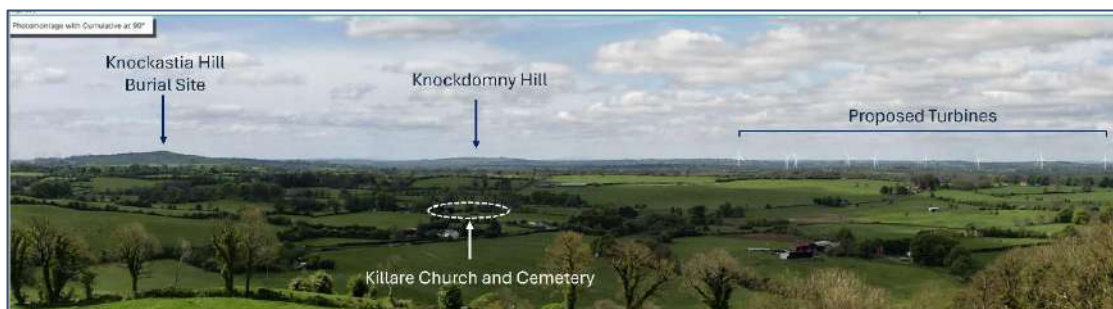


Figure 5-19 Annotated Extract from Viewpoint 19.

The indicative location of Killare Church and its assemblage of monuments is shown in the foreground of the figure above, which is an annotated extract from VP19 in the Photomontage Booklet. Killare Church is located in much closer proximity to the Hill of Uisneach than Knockastia or the proposed turbines. There is sufficient separation and change in the landscape between the Proposed Development and Killare Church to ensure there is no clear impact on intervisibility or the integrity of any cultural connections between the heritage sites at Killare Church and the Hill of Uisneach.

Translation of VP19 Relative to the Hill of Uisneach: Viewpoint 19 was captured approximately 15 metres above the ground from a drone. Whilst VP19 provides landscape context, and is an accurate representation of the form, scale and arrangement of turbines from the top of the Hill, it is highlighted

that a visual receptor on the ground would have a slightly different experience of the view. In reality, the foreground of the Hill itself would form a much larger proportion of the visual composition of views experienced from ground-based receptors, particularly features such as mature treelines on the western aspect of the Hill itself. As reported previously in Section 5.2.2, actual visibility of the proposed turbines from Protected View 36 at the location of St Patrick’s Bed will be very limited and they will not be seen within the open and longer ranging parts of the view from this location, as shown in Figure 5-20 below. In reality, open and clear views of the proposed turbines will only really occur from the western aspect of the Hill, as reported in Section 5.2.3 previously. Views towards the proposed turbines from the receptors on the ground will be much more susceptible to obstruction from features of the intervening landscape compared with the very open and clear views captured from the drone, as presented in Viewpoint 19. Irrespective of these limitations, the representative viewpoints (VP17, VP18 and VP19) are all effective visual aids to inform the impact assessments included in Section 5.3.



Figure 5-20 Annotation of View BC of Protected View 36 from Appendix 5 of the WCDP, showing the location and extent of the proposed turbines within a 120-degree field of view from the Hill of Uisneach summit.

5.2.7

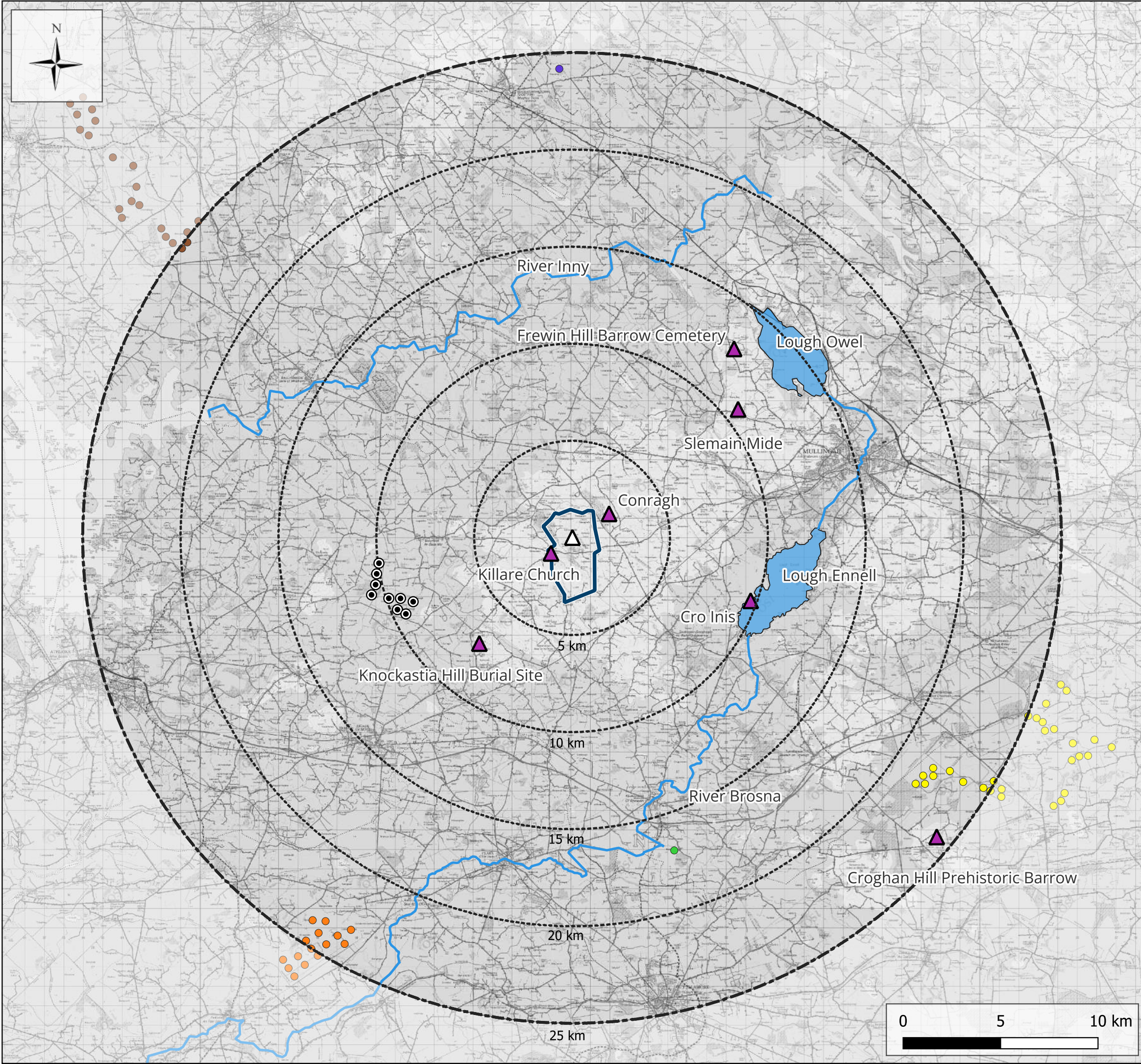
Potential for Effects on the Appearance and Character of the Hill of Uisneach

A key characteristic of the Hill of Uisneach’s cultural significance is its heritage as an elevated seat of power. This is an attribute it shares with the other sites comprising the ‘Royal Sites of Ireland’ and could potentially be one aspect of OUV in a future scenario should the properties be inscribed as UNESCO world heritage properties. In this regard, views towards the Hill of Uisneach have the potential to be as important as the views from Uisneach, this is also mirrored by the local planning policy CPO 13.18 (reported on previously in Section 4.1) in the WCDP, which protects the appearance of the Hill of Uisneach.

Ultimately, the proposed turbines are substantially set back from the Hill of Uisneach and have very limited potential to significantly interfere with the character and appearance of the Hill as perceived from receptors in the landscape. However, for the avoidance of doubt, this has been analysed with the aid of ZTV mapping and information gathered during site assessments. Two separate ZTV maps are presented below. The ZTV maps have been extended to a 25km buffer from the summit of the Hill of Uisneach and include the relevant cultural heritage monuments identified during this study.

- Figure 5-21: Half Blade ZTV of the **proposed turbines** – Where the proposed turbines are theoretically visible within a 25km buffer of the summit of the Hill of Uisneach;
- Figure 5-22: ZTV of the **Summit of Hill of Uisneach** – Where the summit of the Hill of Uisneach itself is theoretically visible within 25km buffer of the summit of the Hill of Uisneach;

The ZTV maps show a bare-ground scenario as they are modelled using a relatively coarse terrain model. The ZTV does not account for above ground elements of the landscape such as vegetation or the built environment and the coarse nature of the model does not account for small, localised undulations in topography. Therefore, the actual geographic spread of theoretical visibility is typically far less than the map. Irrespective of these limitations, the ZTV maps are useful visual aids to determine where both the Hill of Uisneach and the proposed turbines are visible from within the landscape.



Map Legend

- 25km Buffer from Hill of Uisneach
- Hill of Uisneach Landscape Character Area
- Hill of Uisneach Summit
- Proposed Turbines
- Relevant Cultural Heritage Monuments
- Lakes identified in Hill of Uisneach CMP (UAG, 2022)
- Rivers identified in Hill of Uisneach CMP (UAG, 2022)

Cumulative Wind Energy Developments

- Proposed Derryadd Wind Farm
- Permitted Kepak Wind Turbine
- Proposed Lemanaghan Wind Farm
- Permitted Lissanore Wind Turbine
- Existing Yellow River Wind Farm

Proposed Turbines Half-Blade Zone of Theoretical Visibility

- 1-3 Turbines Theoretically Visible
- 4-6 Turbines Theoretically Visible
- 7-9 Turbines Theoretically Visible

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Drawing No.

Figure 5-21

Drawing Title

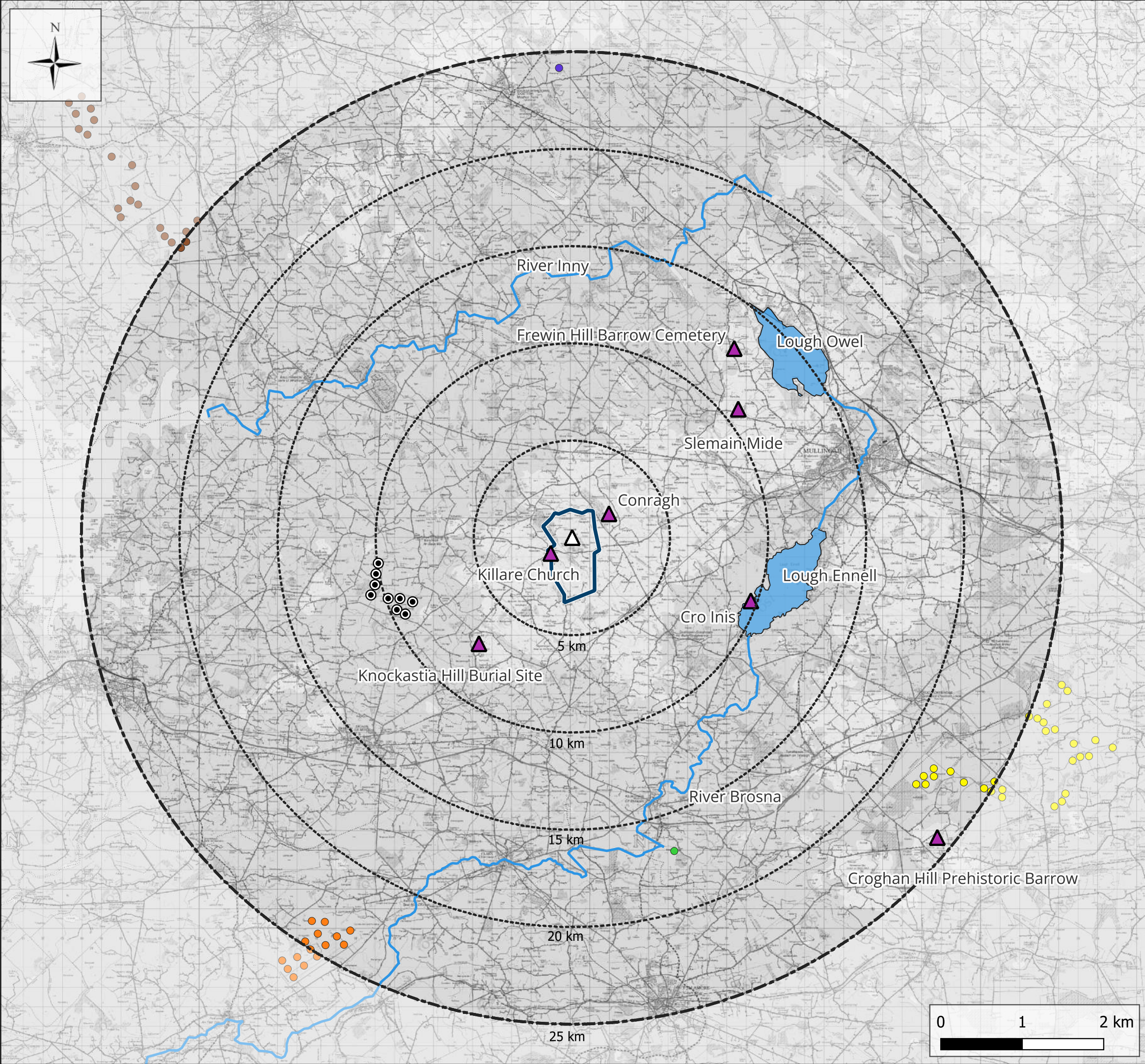
Proposed Turbines Zone of Theoretical Visibility, Cumulative & Monuments

Project Title

Umma More - Response to Submissions

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	201050-d	09.06.2025	AR	JW





Map Legend

- 25km Buffer from Hill of Uisneach
- Hill of Uisneach Landscape Character Area
- Hill of Uisneach Summit
- Proposed Turbines
- ▲ Relevant Cultural Heritage Monuments
- Lakes identified in Hill of Uisneach CMP (UAG, 2022)
- Rivers identified in Hill of Uisneach CMP (UAG, 2022)

Cumulative Wind Energy Developments

- Proposed Derryadd Wind Farm
- Permitted Kepak Wind Turbine
- Proposed Lemanaghan Wind Farm
- Permitted Lissanore Wind Turbine
- Existing Yellow River Wind Farm

Hill of Uisneach Zone of Theoretical Visibility

- Summit of Hill of Uisneach Theoretically Visible
- Summit of Hill of Uisneach Not Theoretically Visible

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Drawing No.

Figure 5-22

Drawing Title

Hill of Uisneach Zone of Theoretical Visibility, Cumulative & Monuments

Project Title

Umma More - Response to Submissions

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	201050-d	09.06.2025	AR	JW

The technical methodology used to produce the ZTV mapping is reported in Section 3.6. The greatest potential for the proposed turbines to interfere with views of the Hill of Uisneach are from directly west of the Wind Farm Site. Both ZTV maps shows that, excepting immediately west of the proposed turbines to a distance of 3km, theoretical visibility of both the proposed turbines and also the summit of the Hill of Uisneach is very limited. The likely visibility, and likely landscape and visual impact of the proposed turbines was comprehensively addressed in the EIAR LVIA, and it was determined that visibility and impacts will, in general, be extremely limited from receptors to the west of the small ridgeline forming the Dungolman River Valley where the proposed Wind Farm Site is located. Recent site visits confirmed that there is also no visibility of the Hill of Uisneach from most of the landscape west of this ridgeline, excepting from rare and very occasional very elevated vantage points, of which there are few. Ultimately it is only a very small number of residential receptors and a local road located immediately west of the proposed turbines which will have intermittent views in both the direction of the Hill of Uisneach and the proposed turbines.

The greatest potential for impact on the setting and appearance of Uisneach is when the proposed turbines are experienced from points of nearby elevation such as the Knockastia or Laragh Hill, as shown in two figures reproduced below from the EIAR LVIA.

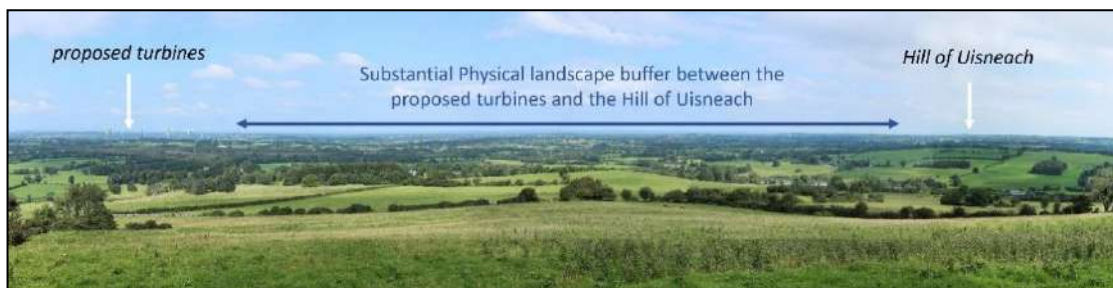


Figure 5-23 'Reproduction of Figure 12-22 from the EIAR LVIA: The location from the Wind Farm Site and The Hill of Uisneach, as viewed from atop Knockastia Hill. Imagery extracted from Photomontage Viewpoint 06 in the EIAR Volume 2: Photomontage Booklet

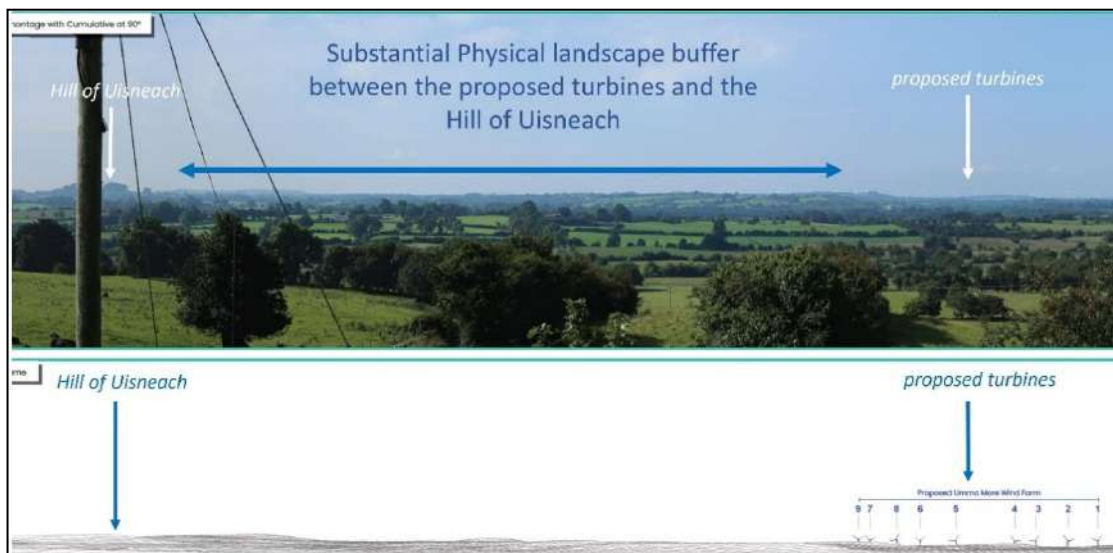


Figure 5-24 Reproduction of Figure 12-23 from the EIAR LVIA: The proposed turbines at the Wind Farm Site and The Hill of Uisneach, as viewed from atop Laragh Hill. Imagery extracted from Photomontage Viewpoint 13 in the EIAR Volume 2: Photomontage Booklet

The site assessments also determined that as a landform, the Hill of Uisneach is relatively inconspicuous when experienced from the west. It is not a highly distinctive landmark, particularly within the area of the landscape within the visual envelope of the proposed turbines which predominantly includes all lands west of the Hill. This is evident in the images above where the form of the Hill resembles more of

a gradual mound than a dramatic peak. Irrespective of this, the proposed turbines were not found to significantly impact any highly sensitive landscape views of the Hill of Uisneach.

5.2.8

Potential for Cumulative Effects of Other Wind Energy Development on the Hill of Uisneach

Figure 5-21 and Figure 5-22 shown previously include the location of all other existing, permitted and proposed wind energy developments existing within 25km from the summit of the Hill of Uisneach as of June 2025. These are included in the mapping to enable a complete picture of potential cumulative landscape and visual effects on the Hill of Uisneach. Singular turbines with a tip height of 50 metres or less, with a setback distance greater than 5km from both the proposed turbines and the Hill of Uisneach summit itself were scoped out of the cumulative assessments, as they would not cause any potential for significant cumulative landscape and visual effects.

The existing Yellow River Wind farm was recently constructed, is located adjacent to Croghan Hill, and is visible approximately 21.6km to the south-east of the Hill of Uisneach. The Proposed Development turbines are located in a completely opposing field of view to the Yellow River Wind Farm, which is not visible from the western aspect of the Hill and therefore there is very limited potential for in combination effects to occur with the proposed turbines.

The proposed Derryadd Wind Farm is located approximately 24.4km north-west of the Hill of Uisneach. This is likely to be visible in a future receiving environment (which is uncertain) although in a different field of view to the proposed turbines. Three turbines of the proposed Derryadd turbines are seen in the very periphery of the 90° degree view shown in Viewpoint 18 in the Appendix 4 Photomontage Booklet. It is highlighted that VP18 is a representative viewpoint, located further 2.7 km South-west from the Hill of Uisneach. The photomontage from VP18 is centred on the proposed turbines and the field of view is oriented in a more northerly direction than would be experienced from the Hill, therefore capturing some proposed Derryadd turbines in the very northern extent of the 90° field of view. The proposed Derryadd turbines have substantial visual separation from the proposed turbines and a visual receptor on the Hill of Uisneach would need to turn their head to a different direction to view the two developments in succession from the same viewpoint.

The proposed Lemanaghan Wind Farm (Pre-Planning only) is located approximately 23.2km to the south-west, it is shown in the wireline view of the photomontages, however at the distance no significant in combination effects have the potential to occur considering the substantial set-back distance and visual separation with the proposed turbines.

The single permitted Kepac turbine is located approximately 16.8 km south of the Hill of Uisneach. At a tip height of 87 metres and the setback distance, this turbine it is likely to have very limited visibility and visual impact from the Hill. The turbine will not be discernible from the western aspect of the Hill where the proposed turbines are visible and no in combination cumulative effects will arise.

The single permitted Lissanore turbine is located approximately 24 km north of the Hill of Uisneach. At a tip height of 150 metres and the setback distance, this turbine it is likely to have very limited visibility and visual impact from the Hill. The turbine will not be discernible from the western aspect of the Hill where the proposed turbines are visible and no in combination cumulative effects will arise.

Given the large set back distances and large degree of visual separation between the Proposed Development and all other existing, permitted and proposed turbines in the wider landscape surrounding the Hill of Uisneach, no significant cumulative landscape and visual effects are likely to occur for receptors represented by the Hill of Uisneach.

5.3

Likely or Significant Landscape & Visual Effects

The additional information and assessment provided in the previous section (and the Cultural Heritage Assessment in the following section), as well as the information provided in the EIAR LVIA and EIAR Cultural Heritage Assessment have all informed the assessment of likely significant landscape and visual effects. Whilst the information in this section (Section 5 – Landscape and Visual) informs the Archaeological and Cultural Heritage Impact Assessment in a world heritage context, the impact assessment determined here is in alignment with the appropriate frameworks and methods required for EIA. Both Section 3.6 and Section 5.1.3 of this report includes an overview of the methods, framework and guidance used for the impact assessments in the EIAR LVIA, namely the GLVIA3 (LI & IEMA, 2013) and EPA 2022 guidance which are aligned with recommendations set out in Guidance and Toolkit (UNESCO, 2022) and UNESCO Wind Guidance (UNESCO, 2022) for LVIA. Therefore, these methods, definitions and processes as stated previously and comprehensively set out in Appendix 12-1 of the EIAR (LVIA Methodology) have been used for the following impact assessments.

For clarity, the impact assessment balances the sensitivity of the receptor (landscape or visual) with the magnitude of change arising due to the Proposed Development, mitigating factors are then taken into account to arrive at a residual effect in line with the EPA, 2022 guidance definition of significance. The balance between sensitivity and magnitude of change ensures the impact assessment is calibrated against the very high sensitivity of the Hill of Uisneach, in line with the recommendations provided during consultation with statutory bodies. In line with GLVIA3 (LI & IEMA, 2013) likely significant effects on landscape receptors (landscape effects) are reported separately to likely significant effects on visual receptors (visual effects). Potential for cumulative landscape and visual effects with other relevant existing, permitted and proposed developments are also taken into account with regard to the final residual impact assessment outcome.

The assessment of effects stated below are considered only in relation to the landscape of the Hill of Uisneach itself – the landscape receptor, and also visitors to the Hill of Uisneach – visual receptors. The assessment considers the operational phase where the proposed turbines are constructed. As set out in Section 1.2, the LVIA is fully focussed on the proposed turbines, which are the essential aspect of the Proposed Development under consideration in the context of this assessment, located 8.8km from the summit of the Hill of Uisneach at its closest point

5.3.1

Landscape Effects

The Hill of Uisneach, its monuments, its LCA and landscape setting are considered to be landscapes of ‘Very High’ landscape sensitivity. Whilst the landscape is a working farm and the site of the annual Bealtaine Fire Festival (which hosts approximately 5,000 attendees on that day each year), the ‘Very High’ sensitivity is afforded the Hill of Uisneach on account of its cultural significance, protections in local planning policy and its status on Irelands tentative list for UNESCO world heritage status.

As the nearest proposed turbine is located approx. 8.8km west-south-west of the summit of the Hill of Uisneach, the Proposed Development will not materially alter the landscape of the Hill of Uisneach itself or its LCA, therefore only perceptual effects on landscape character have the potential to occur.

The proposed turbines are visible from vantage points on the Hill of Uisneach, therefore a degree of visual connectivity is evident and effects on landscape character will occur. There is clear physical and landscape separation between the proposed turbines and the Hill of Uisneach. The separation is both evident in terms of distance as well as the landscape context where the proposed turbines are located within a different landscape type and landscape area to the Hill. As per local landscape policy, the proposed turbines are located in County Westmeath ‘LCA 7 - Western Lowlands’, whereas the Hill of Uisneach is located in its own separate LCA, County Westmeath ‘LCA-9 Hill of Uisneach’, with County Westmeath ‘LCA 8 - South Central Hills’ comprising the intervening landscape between them. The

landscape transition between the Hill and the turbines is evident within the photomontage and drone imagery where the constituent elements such as landform, landcover and land-use changes across the intervening area. The proposed turbines are located and visible within the lowland area comprising a working agricultural landscape to the east, separate from the undulating lands of the South Central Hills and then Hill of Uisneach itself.

The assessments and analysis included in this report could not identify any specific heritage sites, monuments or landscape features in close proximity to the proposed turbines, or within their line of sight from the Hill, which indicate a cultural connection between the landscape of Uisneach and the landscape of the Wind Farm Site. The assessment determined that the proposed turbines would have very limited potential to impact views towards the Hill of Uisneach, only in a very small area immediately west of the proposed turbines (See Section 5.2.7). Therefore, the proposed turbines have a ‘Negligible’ change to the overall appearance and character of the Hill as a landmark and feature as perceived from within the surrounding landscape. Considering all of the factors mentioned above the magnitude of change is ‘Slight’ (See Definition in Appendix 12-1 of the EIAR).

‘Very High’ sensitivity balanced with a ‘Slight’ Magnitude of change and considering all of the relevant factors, the overall residual landscape effect is ‘**Moderate**’, ‘Negative’ and ‘Long Term’.

5.3.2 Visual Effects

Analysis of mapping and new visualisations included as part of the Technical Report have provided greater clarity on the reality of the visual impact likely to occur from receptors visiting the Hill of Uisneach. Whilst there are some limitations that remain in relation to access the private landholdings at the Hill itself, all of the supplementary information and materials in this report and photomontages (Appendix 4 Photomontage Booklet), and information from the EIAR are sufficient to inform an effective and robust visual impact assessment. The proposed turbines will be visible from vantage points on the western aspect of the Hill of Uisneach and therefore visual effects will occur.

Firstly, all visual receptors visiting the Hill of Uisneach are given a ‘Very High’ sensitivity on account of the importance and significance of the Hill and the likelihood that most receptors are visiting in a recreational capacity to experience the monuments on the Hill and its landscape setting, as well as take in the panoramic views available from elevated vantage points.

The detailed analysis included in Section 5.2.2 addressed the designated scenic amenity in the WCDP. Protected View 36 in the WCDP comprises one location at the summit of the Hill where there is a 360-degree panoramic view at the monument of St Patrick’s Bed. The analysis determined that the proposed turbines will be visible from this location. However, in reality, the degree of visibility and visual impact will be very limited within these 360 views due to various factors, namely the nature, characteristics and composition of the landform and landscape visible in the foreground of views in the direction of the proposed turbines from that location. The proposed turbines will be partially visible in the distance and will not be seen in the wider ranging and more expansive parts of the panoramic view visible in other directions, such as to the north and south. Ultimately, the proposed turbines will not significantly impact the key scenic sensitivities of the 360-degree panoramic view.

The greatest visual impact will occur from the skyline ridge, beyond the field boundary to the west of St Patrick’s Bed where there will be clear and uninterrupted views of the proposed turbines. From these vantage points on the western aspect of the Hill, the proposed turbines will be seen as a linear array beyond the foothills of the Central Hills (See Discussion and analysis of Viewpoint 19 in Section 5.2.6) Considering the scale of the proposed turbines at the distance from receptors and their acceptable arrangement and form as a collective group of turbines, they are effectively absorbed and accommodated within the expansive, wide and long-ranging landscape views and the magnitude of change is considered ‘Slight’.

The additional assessments in this Technical Report identified two sites of interest with connections to the Hill of Uisneach, which, on account of their geographical location had greatest potential to be impacted by the Proposed Development. The proposed turbines will be seen to the north, or right-hand side, of the peak of Knockastia which can be seen to the far left-hand side of the wide-angle photomontage comprising 90-degree field of view (See VP19 drone image). The study reported in this Technical Report identified Knockastia as a landmark and site of cultural heritage importance with evidence supporting a cultural and visual link with the Hill of Uisneach. Whilst the proposed turbines are visible in combination with Knockastia, in the periphery of views, there is substantial separation and setback both horizontally in the field of view and in terms of distance from the Hill. Another receptor of significance identified in the analysis is an assemblage of monuments at Killare Church, located 1.3km south-west of the Hill of Uisneach, and approximately 7.4km east of the nearest proposed turbines. Considering the geography and different setback distances, the proposed turbines have no potential to effect intervisibility between the Hill of Uisneach and monuments at Killare Church. The assessments determined that the proposed turbines do not interrupt or compromise the integrity of any visual links of archaeological significance between the two sites and the Hill of Uisneach.

‘Very High’ sensitivity balanced with a ‘Slight’ Magnitude of change and considering all of the relevant factors, the overall residual landscape effects is **‘Moderate’**, ‘Negative’ and ‘Long Term’.

5.3.3 Cumulative Effects

There is a large degree of visual separation between the Proposed Development and all other existing, permitted and proposed turbines in the wider landscape surrounding the Hill of Uisneach. Due to the setback distances from the Hill, all turbines are small distant features absorbed within expansive panoramic views. Any potential for cumulative visual effects with other wind energy developments will not be significant.

5.4 LVIA Conclusion

As discussed in Section 3 of this report, it would be inappropriate to conduct an impact assessment on the yet undefined potential OUV of the Hill of Uisneach. However, in the context of LVIA, the baseline information and assessment included this Technical Report has addressed as many of the relevant landscape and visual factors and topics as possible which have any potential to contribute to ‘potential OUV’ in a future scenario where the Hill Uisneach could potentially be inscribed as a world heritage property.

This LVIA concludes that the Proposed Development turbines will be seen, and there will be an impact on receptors at the Hill of Uisneach. Ultimately, this impact is considered **‘Moderate’** (EPA, 2022) for both landscape and visual effects, and is Not Significant in the framework of EIA and the context of LVIA of wind energy developments in Ireland. Seeing turbines at a distance of 8.8km does not warrant a ‘Significant’ landscape or visual effect, particularly considering the context of the further information and analysis provided in this report. The proposed turbines do impact views but do not significantly impact the integrity of the key scenic or landscape sensitivities at the Hill of Uisneach or disturb any visual or cultural links evident within the wider landscape setting. The proposed turbines will not fundamentally detract from the visitor experience of the Hill, its landscape and monuments, or any visual connectivity with other landmarks or places of significance elsewhere in the wider landscape.

The proposed turbines are located within a working landscape, and the addition of wind turbines is a natural evolution of the modern working landscape in the Republic of Ireland. There is strong government policy supporting the development of onshore wind energy in the current Climate Action Plan 2025. Consequently, wind energy developments will become more commonplace, and in principle, are accepted as required components of the modern working landscapes of Ireland. The focus for the landscape and visual assessment is therefore distance, arrangement, location and potential disruption to cultural links rather than on whether turbines are visible or not.

It is highlighted that the potential landscape and visual impact on receptors represented by the Hill of Uisneach are ‘Long-Term’ (EIAR context), they are not permanent and are therefore reversible.

The further assessments reported in this Technical Report found no evidence that the proposed turbines have the potential to disturb or interrupt any visual or cultural links within the wider working landscape, or equally, they will not disturb or compete with any prominent views of the Hill of Uisneach itself. Considering these key factors outlined above, and the matter of distance in particular, the proposed turbines are considered acceptable from an LVIA perspective. The impact assessments and conclusions reported in the EIAR LVIA have been further verified by the additional information and assessments included in this Technical Report.

6. **ARCHAEOLOGY AND CULTURAL HERITAGE IMPACT ASSESSMENT**

6.1 **Introduction**

Chapter 13, Archaeology & Cultural Heritage, of the EIAR (hereafter - EIAR Cultural Heritage Assessment) was prepared by Tobar Archaeological Services and comprises an archaeological, architectural and cultural heritage impact assessment of the Proposed Development. As outlined in the EIAR, the assessment was based on both a desktop review of the available cultural heritage and archaeological data and a field inspection of the Proposed Development EIAR Site Boundary and wider landscape setting. The following sections of this document provide an overview of the archaeological and cultural heritage receiving environment of the Proposed Development, a summary of information included in Chapter 13 and any relevant Further Information regarding archaeology and cultural heritage. This section of the report is written with specific reference to Section 3 and 4 which provides a detailed overview of the archaeology and cultural heritage of the Hill of Uisneach, its inclusion on the UNESCO World Heritage Sites (WHS) Tentative List and the relevant guidance documents which pertain to UNESCO WHS. The likely effects of the Proposed Development on archaeology and cultural heritage are also restated with particular reference to and in conjunction with the findings of the EIAR LVIA and the additional information provided in this document relevant to potential visual effects on the Hill of Uisneach and its wider landscape setting detailed in Section 5.

6.2 **Receiving Environment**

The Proposed Development is located in County Westmeath, approximately 6km north of Moate. In the context of archaeology and cultural heritage it is situated in an area containing a diverse variety of monument types as well as items of architectural or built heritage significance. An overview of the archaeological and cultural heritage receiving environment of the Proposed Development is provided here in order to establish the archaeological and cultural heritage context of the area and with reference to the Hill of Uisneach which is situated within the wider landscape at a distance of c. 8.8km to the north-east. Information provided in Chapter 13 of the EIAR specific to the assessment of potential effects of the Proposed Development is provided in Section 6.5 below.

6.2.1 **Archaeological Heritage Overview of the Wider Receiving Environment**

As detailed in the EIAR Cultural Heritage Assessment, the baseline data for archaeological heritage largely comprises all sites and monuments listed in the Sites and Monuments Record (SMR) and the Record of Monuments and Places (RMP) and accompanying maps. Archaeological heritage also includes as yet undiscovered sub-surface archaeological sites or features as well as finds listed in the National Museum of Ireland Topographical Files and sites discovered during archaeological

assessments. All of the aforementioned elements of archaeological heritage are discussed in the EIAR Cultural Heritage Assessment.

The archaeological heritage of the wider receiving environment is diverse and contains recorded monuments of numerous type and date. Monuments dating to all periods from the prehistoric period (c. 8000 BC - AD 400) through to the post-medieval period (post 1700 AD) are represented in varying numbers. The broad range of time periods represented in the archaeological record of the receiving environment is testament to the continued occupation and use of the area from prehistory onwards. The continuity of occupation is reflective of the capacity of this environment to provide a setting conducive to the establishment and subsistence of prehistoric, early medieval, medieval and post-medieval communities.

Prehistoric activity in the receiving environment is represented by many monument types including those which relate to burial or funerary activity such as barrows, cists, cairns and standing stones. As detailed in Section 4, also present within the wider receiving environment is the Hill of Uisneach and its associated monuments. Activity on the Hill of Uisneach as evidenced by the monuments on the Hill is rooted in the prehistoric period with numerous barrows present in addition to standing stones and a cairn. The continuity of habitation and use of the site beyond the prehistoric period and into the early medieval period is also illustrated by ringforts and enclosures. The continued use of the site for both settlement and agricultural activity is further evidenced by later field divisions and buildings. As noted in the CMP the ‘*extensive network of townland boundaries, field divisions, derelict stone buildings and other post-medieval remains*’ is ‘*testimony to the protracted history of settlement and agricultural activity at Uisneach extending back at least 1,200 years.*’ The archaeological and cultural significance of the Hill of Uisneach is detailed in Section 4.2.2 of this report and in this regard is not repeated here, however, its importance as a place of ceremony, burial and domestic activity in the prehistoric period is clear, as is its royal status during the early medieval period. Potential relationships with other important archaeological sites and monuments in the surrounding landscape of Uisneach are discussed in Section 4.2.1 and Section 6.5 and include the prehistoric burial monuments at Frewin Hill to the north-east, which also occupies an elevated location, Knockastia Hill to the south-west and Croghan Hill to the south-east.

6.3 Information included in the EIAR Cultural Heritage Assessment

6.3.1 Introduction

The EIAR Cultural Heritage Assessment comprised a comprehensive assessment of the potential effects of the Proposed Development on the archaeological, architectural and cultural heritage resource.

The relevant heritage resources, legislation and guidance considered in the EIAR Cultural Heritage Assessment are detailed in Chapter 13 of the EIAR.

6.3.2 EIAR Cultural Heritage Assessment Methodology

For the purposes of the assessment, potential effects to the aforementioned archaeological, architectural and cultural heritage assets as a result of the Proposed Development were considered. The assessment was based on desktop research, the use of GIS mapping and field inspection. The assessment of impacts on visual setting was undertaken using both the ZTV maps in the EIAR LVIA, and also photomontage / wireline technology from specific cultural heritage assets or other relevant viewpoints. Section 13.2.5 of Chapter 13 details the methodology employed in the assessment of potential visual effects, the assets considered and the distance of such assets from the Proposed Development. Table 13-1 of the EIAR lists the Cultural Heritage Assets considered and the distance of same from the proposed turbines according to their sensitivity as follows:

Table 2 Extracted from Chapter 13 of the EIAR (Table 13-1)

Cultural Heritage Asset	Distance Considered from the Proposed Turbines
UNESCO World Heritage Sites (including tentative sites)	25km
National Monuments (State Ownership and Preservation Order Sites)	10km
Sites and Monuments and Recorded Monuments, RPS	5km
NIAH structures	5km
Undesignated sites, if relevant	500m

While direct physical impacts to a site or monument can easily be assessed in quantitative terms, the assessment of impacts on setting can be subjective and as such is a matter of qualitative, professional judgement and experience. The distances used in the assessment of effects on setting in Chapter 13 are regarded as appropriate and are based on professional judgement.

6.3.3

EIAR Cultural Heritage Assessment: The Hill of Uisneach

The Hill of Uisneach is located c. 8.8km to the north-east of the nearest proposed turbine and in this regard was included in the assessment of the Proposed Development on archaeology and cultural heritage on the basis of the methodology utilised in Chapter 13 and as summarised above. National Monuments in State Care or Guardianship located on the Hill of Uisneach were also included in the assessment by virtue of their location within 10km of the nearest proposed turbine and an assessment of potential visual effects to same was undertaken in Chapter 13.

The assessment of potential visual effects on the Hill of Uisneach was undertaken with particular reference to the assessment of landscape and visual effects as discussed in detail in the EIAR LVIA. Section 13.3.2.1.1 of Chapter 13 states the following in relation to the Hill of Uisneach and its inclusion in the Tentative List and with reference to the policies of WCDP regarding that site.

‘The Ancient Royal site “The Hill of Uisneach” and its integral surrounding landscape was submitted by the State in 2010 for UNESCO World Heritage Site Status. “The Hill of Uisneach” is an ancient ceremonial site of National importance (National Monument Number 155). Such is the importance of this site, that along with Cashel, Dún Ailinne, the Rathcroghan Complex, and the Tara Complex, it was submitted by Ireland as a ‘tentative’ World Heritage Site to UNESCO in 2010 under the title “The Royal Sites of Ireland”. The Westmeath County Development Plan was consulted for any designated archaeological landscapes within the county. No such landscapes are recorded therein. It is an objective of the CDP, however, ‘to designate Fore, Kilbixy, Ardnurcher and the Hill of Uisneach as Archaeological Landscape Areas, in recognition of their numerous archaeological monuments and national heritage significance’ (O-AH6, pg. 105).’

Section 13.4.3.1.1 of Chapter 13 assessed the potential visual effects to the setting of the Hill of Uisneach and potentially inter-visible monuments such as Frewin Hill and Lough Crew and stated the following in that regard:

‘The Hill of Uisneach is located in private land to which no access was permitted for purposes of obtaining photomontages. A number of tools were therefore used in order to ascertain what potential impacts on setting may occur as a result of the proposed turbines. These tools included overlaying the

monument on the Zone of Theoretical Visibility (ZTV) used as part of the LVIA Chapter 12. The nearest proposed turbine is located approximately 8.8km west of the summit of the Hill and in this regard, it is suggested that the Hill will not be materially altered as a result of the proposed turbines.'

'As illustrated in the visuals in Section 12.7.3.1 in Chapter 12 of this EIAR: LVIA, a landscape of highly vegetated and undulating farmland provides a substantial physical buffer between the Hill of Uisneach itself and the Wind Farm Site..... The immediate setting of the monuments on Uisneach Hill will not be impacted due mainly to the intervening distance and physical intervening buffer. The important connection to other monuments such as Frewin Hill and Lough Crew will not be impacted. The inter-visibility of the monuments may be regarded as an important aspect of these monument and their relationship with similar monuments and sites in the surrounding landscape.'

'Visibility from the Hill

All turbines of the Proposed Development are likely to be visible from the top of the Hill of Uisneach where open views are permitted to the west. As shown by the Rendered Wireline as presented in Chapter 12, the proposed turbines appear as a linear array across the background of the view. At a distance of approximately 8.8km to the nearest proposed turbine, they are seen as small background features and comprise a small horizontal extent in the panoramic landscape view. This change is considered to be slight/moderate.

Visibility from Cat Stone

The Cat Stone is a National Monument as well as a feature of the landscape of the Hill of Uisneach and falls within an area of full theoretical visibility on the ZTV. Figure 12-33 as presented in Chapter 12, LVIA shows a Google Street View Image showing a view towards the Wind Farm Site from the Cat Stone. A scaled wireline image is shown below the Google Street View Image indicating the location, scale and form of the proposed turbines from the Cat Stone. The proposed turbines will be visible from this location but partially screened by the intervening ridgeline (and treeline upon the horizon) visible in the background of the image. This potential impact will be slight/moderate.

The overall residual effect to the Hill of Uisneach and its associated monuments as determined by the assessment was considered to be **Slight-Moderate**.

An assessment of potential cumulative effects taking into consideration other projects, including wind farms, within 25km of the Proposed Development was also undertaken with reference to the Hill of Uisneach and its associated monuments. No significant cumulative effects to the setting of the Hill of Uisneach were identified.

6.4

Archaeological and Cultural Heritage Impact Assessment: Further Information

The further information provided in this section includes updated legislation which governs the protection of archaeological heritage in Ireland. It also includes additional analysis and discussion of the potential visual effects to the Hill of Uisneach in the context of its perceived and potential relationship with other sites and monuments in the wider landscape, and with regard to the UNESCO Guidance and Toolkit for Impact Assessments in a World Heritage Context (2022) as detailed in Section 3. It should be noted that the assessment of potential visual effects is carried out in conjunction with and in reference to the Landscape and Visual assessment as presented in Section 5 of this document. It is also undertaken with reference to Section 4 which provides a detailed description of the Hill of Uisneach, its attributes and significance.

6.4.1 Legislation and Guidance

As outlined in Chapter 13 of the EIAR, archaeological monuments are safeguarded through national and international policy, which is designed to secure the protection of the cultural heritage resource. Both the National Monuments Acts 1930 to 2014 and relevant provisions of the Cultural Institutions Act 1997 are the primary means of ensuring protection of archaeological monuments, the latter of which includes all man-made structures of whatever form or date.

The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 will replace the existing National Monuments Acts (1930-2014) when it is brought into force by Ministerial Order. The majority of provisions of the Act have not yet come into force. One Commencement Order relating to Sections 1-6 and Section 7 insofar as relates to the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 (other than section 5) came into effect on the 31 May 2024. These provisions relate to World Heritage Property in the State, inventories, the protection of certain records, the promotion of heritage, and the issuing of statutory guidance. Certain related and supporting provisions concerning implementation and enforcement are also commenced (www.archaeology.ie/news). The provisions now in force allow for the establishment and maintenance of inventories of relevant things of archaeological interest, architectural heritage, and wrecks of archaeological or historic interest. This bolsters the status of existing inventories recording sites of archaeological, historic and architectural interest, both on land and under the sea. It also ensures that legal protection is afforded to certain records or archaeological objects in the event that a person or company in possession of such records is no longer in a position to maintain them, which further strengthens existing practices (<https://www.gov.ie/>).

Guidance documents of relevance to this assessment and as detailed in Section 3 above are the UNESCO Guidance and Toolkit for Impact Assessments in a World Heritage Context (2022) and Guidance for Wind Energy Projects in a World Heritage Context (2022). As detailed in Section 3.3.1 the Guidance and Toolkit document (UNESCO 2022) provides guidance and a framework for those undertaking an impact assessment on World Heritage Sites. World Heritage Properties (WHP) require a Heritage Impact Assessment (HIA). These are project specific assessments that focus on the potential effect on a heritage place's OUV and other heritage and conservation values. In the context of World Heritage properties, a HIA should focus on identifying and assessing negative and positive impacts on the attributes which convey the OUV of the WHP.'

6.4.2 Desktop Research

In addition to the sources consulted as part of the desktop research undertaken for the assessment carried out in Chapter 13 of the EIAR the following documents were also consulted as part of this assessment. Detail regarding the content of the CMP and National Monuments Service documents is provided in Section 3.3 above.

- Conservation Management Plan For The Hill of Uisneach Co. Westmeath June 2022 With amendments July 2023
- A Guide to World Heritage Nomination World Heritage Advice Series No. 1 Prepared by the Department of Housing, Local Government and Heritage gov.ie 2023
- World Heritage Tentative List Technical Evaluation (National Monuments Service and Department of Housing Local Government and Heritage 2022)
- McGuinness, D., 2012, The Prehistoric Burial Mounds and Related Monuments of County Westmeath I – Preliminary Account of the Monuments in the Lough Owel Area.
- Ritual and Royalty at Uisneach, Co. Westmeath. Archaeology Ireland Heritage Guide No. 103.

- Schot, R., 2011, From cult centre to royal centre: monuments, myths and other revelations at Uisneach in R. Schot, C. Newman and E. Bhreathnach eds. *Landscapes of cult and kingship*. 87-113. Four Courts Press.

6.5 Likely or Significant Cultural Heritage Effects

6.5.1 Hill of Uisneach – UNESCO World Heritage Site Tentative List

As has been discussed in detail in Sections 3 and 4 of this report, the Hill of Uisneach is included in the Royal Sites of Ireland which has been accepted on to the UNESCO WHS Tentative List. The topics of the justification for their inclusion, their authenticity, and integrity have been discussed in those sections as has the subject of OUV. The importance of views from the summit of the Hill of Uisneach are also noted and contribute to the setting and character of the Hill which forms part of the Royal site's justification for OUV. As detailed in Sections 3 and 4, the OUV for the Royal Sites of Ireland which includes the Hill of Uisneach has not been defined. Furthermore, buffer zones around the Royal Sites including the Hill of Uisneach have not been defined. In this regard an assessment of potential effects to the OUV of the Hill of Uisneach cannot be undertaken. This addendum to the assessment of potential effects is, however, carried out with regard to any potential OUV, site integrity and associated views.

It is acknowledged that the panoramic view from the Hill of Uisneach is protected within the WCDP which states the following '*The Council recognise the significance and sensitivity of the Hill of Uisneach and given that the site is listed on the tentative list for UNESCO status since 2010, further protection has been afforded to the site by designating the area as a High Amenity Area with views from the perimeter skyline ridge identified as a Protected Panoramic View.*' In this regard the CDP goes on to illustrate the protected panoramic view from the Hill of Uisneach in addition to an inner core area, an outer core area and a wider buffer zone (WCDP Figure 13.2; See Section 5.2.2 and Figure 5-2 above). It goes on to identify the 'Core' and 'Buffer Areas' as locations where development is likely to '*significantly alter the appearance and context of monuments...*', with the required scrutiny of such developments to anticipate and avoid significant changes to the context of monuments or the '*inter-relationship between the core area and relevant monuments in the surrounding landscape.*'

As discussed in Section 5.2, the Proposed Development is located outside the Core and Buffer Areas as defined in WCDP. The nearest proposed turbine is located approximately 8.1km to the west-south-west of the outer Buffer Area at its closest point. As detailed in Section 5.2.6 the Landscape and Visual assessment states that due to the relative distance and small horizontal portion of the 360° views, the proposed turbines will not significantly detract from the visitor experience of the views from the summit of the Hill of Uisneach and the recorded monument located on that summit, St Patrick's Bed (WM024-059— Megalithic tomb).

Numerous recorded monuments are located on the Hill of Uisneach within the Core and Buffer Area, including two which have National Monument status (WM024-069— Ringfort - rath and WM024-061— Barrow - pond barrow in which the Cat Stone is located – National Monument No. 155). Other monuments of note on the Hill comprise the conjoined enclosure or ringfort (WM024-066001- and WM024-066—) which are located over 600m to the north-east. The concentration of monuments on the Hill, the range of monument types present and their funerary, ritual or ceremonial function all contribute to the significance of the Hill of Uisneach as an archaeological complex. The potential visibility of the Proposed Development from the Hill of Uisneach and from specific archaeological monuments on the Hill has been discussed in detail in Section 5.2 above. The ZTV demonstrates theoretical visibility from much of the Hill of Uisneach and its associated monument complex. It suggests that the proposed turbines will be visible from the west and south-facing slopes of the Hill with no visibility further to the north-east. The ZTV demonstrates theoretical visibility of the proposed turbines from monuments such as St Patrick's Bed (WM024-059— Megalithic tomb) which is located on

the summit of the Hill and from where there is a 360 degree, protected and panoramic view. The ZTV also suggests theoretical visibility from the iconic Cat Stone (National Monument No. 155, WM024-061 – Barrow - pond barrow) located on the western slope of the Hill.

As previously noted in the EIAR, however, given the distance of the Proposed Development to the Core and Buffer Area (over 8km), the immediate setting of the Hill of Uisneach or its associated monuments will not be affected by the introduction of the proposed turbines. At this distance, the proposed turbines while visible from certain vantage points on the Hill, will not dominate the view or be visually disruptive. Equally, the proposed turbines will not compete with the elevated location of the Hill of Uisneach as the dominant feature in the landscape. As such, the visual change as a result of the Proposed Development is considered small in scale, leading to a low magnitude of change. This arises where a change, though noticeable, is not such that the cultural heritage character or integrity of the site is significantly compromised and where there is no significant loss of data about the site. Significant changes to the Core and Buffer Areas of the Hill of Uisneach and the many recorded monuments therein as a result of the Proposed Development will not therefore occur.

The WCDP also makes reference to the potential for developments to result in significant changes to the inter-relationship of the inner Core area and relevant monuments in the surrounding landscape. Section 4.2.1 and Section 5.2.5 above have discussed relevant monuments in the wider landscape of the Hill of Uisneach and their potential cultural, ritual, royal or spiritual connectivity to the site. As detailed above, and as illustrated in Figure 5-11, the majority of these monuments are located to the east and north-east of the Hill Uisneach with some situated to the south and south-west. Knockastia Hill, for example, is located c. 7.2km to the south-west. As discussed in Section 5.2.2, in terms of protected views from the summit of the Hill of Uisneach it is identified that given their location, the proposed turbines are located to the north of the line of sight between the Hill and Knockastia and will not interrupt this viewshed or visual connection.

The Proposed Development is located to the west south-west of the Hill of Uisneach and there are no instances where the proposed turbines are located between those monuments in the wider landscape discussed above and the Hill of Uisneach. In this regard, no potential indirect (visual) effects to potential sightlines between these monuments and Uisneach are identified. In this regard, the proposed turbines do not interrupt or compromise any potential visual link between the Hill of Uisneach and those monuments. Any perceived cultural or visual inter-relationship between the Hill and those sites in the wider landscape will continue despite the introduction of the Proposed Development, and as such no potential effects to the inter-relationship of the inner Core area (as identified in WCDP) and relevant monuments in the surrounding landscape will occur.

Section 5 of this report provides a detailed assessment of potential effects to the landscape in which the Hill of Uisneach is located and to the visual receptors (visitors) to the Hill. As noted in Section 5.3 the *‘proposed turbines are visible from vantage points on the Hill of Uisneach, therefore a degree of visual connectivity is evident and effects on landscape character will occur.’* The distance or separation of the proposed turbines from the Hill of Uisneach at over 8km is also noted being *‘evident in terms of distance as well as the landscape context’*. The landscape and visual assessment has also determined that the proposed turbines *‘will have very limited potential to impact views towards the Hill of Uisneach’*. Furthermore, no potential effect to sites or monuments within the wider landscape which may have a cultural or visual relationship with Uisneach have been identified (see above). As detailed in Section 5.3, potential visual effects to both landscape and visual receptors as a result of the Proposed Development is considered to be Moderate.

From an archaeological and cultural heritage perspective and as determined in Chapter 13 of the EIAR no potential visual effects to the immediate setting of the Hill of Uisneach or the monuments therein will occur as a result of the Proposed Development. A change to the wider setting in which the Hill of Uisneach and relevant monuments (as discussed above) are located is acknowledged but will not result in any significant visual effects. The assessment carried out as part of this report has identified that the Proposed Development will result in a slight intrusion and therefore an alteration to the existing panoramic view in one direction, which forms of an important and integral aspect of the receiving

archaeological environment of the Hill. A change in view from the western slopes of the Hill of Uisneach is acknowledged, which, though noticeable, does not lead to a significant loss of character, integrity and data about this cultural heritage asset. Given the very high significance of the Hill of Uisneach, which is considered of international importance, and the low magnitude of impact as a result of the Proposed Development, the overall significance of effects is considered to be Moderate.

In the context of the findings of the original EIAR and in light of the additional assessments undertaken as part of this report it is considered that potential visual effects to the wider setting of the Hill of Uisneach and any relevant monuments will be **Moderate**, Negative and Long Term (EPA, 2022). At a distance of over 8km significant visual effects to the Hill of Uisneach, its wider landscape setting, and to any relevant monuments as discussed above will not occur as a result of the Proposed Development. It is also noteworthy that the potential effect of the Proposed Development as stated above is reversible and will only last for the duration of the operational lifetime of the proposed turbines. It is considered that the potential effect to the Hill of Uisneach, the monuments located thereon, and its wider setting will be reversed once the proposed turbines are removed after their lifetime of operation.

7. CONCLUSION

The impact assessments carried out in this report comprise a detailed analysis of additional mapping, modelling, drone imagery and photomontage visualisations which provide greater clarity on the likely impact of the Proposed Development on the sensitive landscape, visual and cultural heritage characteristics and attributes encompassed by the Hill of Uisneach and its assemblage of monuments.

The Hill of Uisneach, a nationally significant archaeological landscape representing ceremonial, burial and settlement activity over several millennia is a sacred and historic site in Ireland renowned as an ancient meeting place and a place of assembly in the centre of the country. The characteristics, sensitivity and cultural significance of the Hill have been explored in detail in the context of its current status forming part of the Royal Sites of Ireland bid for UNESCO World Heritage Status, and in terms of its potential interrelationship with other sites and monuments in the wider landscape. The panoramic views experienced from the summit of the Hill of Uisneach and the wider adjoining hinterland are integral to the setting and existing character of the Hill. The assessment takes cognisance of how setting contributes to this cultural significance and how the Proposed Development may affect such sensitivities. The assessment is founded on an analysis of the sensitivity and value of the asset, in this case demonstrated to be of exceptional or very high significance, and consideration of the magnitude of the potential impact.

The supplementary information and assessments in this Technical Report provide greater clarity on the likely effects of the Proposed Development on the Hill of Uisneach. The conclusions remain consistent with the original EIAR in that ‘Moderate’ and ‘Long-Term’ effects are likely, however, no significant impact is expected on the Hill’s key landscape, visual, or cultural heritage sensitivities. The findings of the LVIA and the Archaeological and Cultural Heritage Impact Assessment have determined the following principal conclusions.

The Proposed Development is located outside the Core and Areas around the Hill of Uisneach as identified within the WCDP.

At 8.8 km from the summit, the turbines are seen within a distant working landscape and appear in a linear arrangement with even spacing and no visual stacking, resulting in a visually coherent development.

The proposed turbines will be visible from vantage points on the western aspect of the Hill of Uisneach including the Cat Stone National Monument. There is no evidence, however, that the proposed turbines have the potential to disturb or interrupt any visual or cultural links between the Hill of Uisneach and the wider archaeological landscape. Equally, they will not disturb or compete with any prominent or sensitive views of the Hill of Uisneach itself. Significant changes to the Core and Buffer

Areas of the Hill of Uisneach and the many recorded monuments therein as a result of the Proposed Development will not therefore occur.

An assessment of the potential effect of the Proposed Development on the Hill of Uisneach and any potentially interrelated monuments in the wider landscape has determined that no potential indirect (visual) effects to potential sightlines between these monuments and Uisneach will occur. In this regard, the proposed turbines do not interrupt or compromise significantly any potential visual link between the Hill of Uisneach and those monuments. Any perceived cultural or visual inter-relationship between the Hill and those sites in the wider landscape will continue despite the introduction of the Proposed Development.

While some visibility of the proposed turbines is expected from the Hill of Uisneach, the effects are not considered ‘Significant’ in the context of LVIA of wind energy developments in Ireland. Residual landscape and visual effects are deemed to be ‘Moderate’ and ‘Long-Term’ (EPA, 2022).

In terms of the Archaeological and Cultural Heritage assessment, a change in view from the western slopes of the Hill of Uisneach is acknowledged, which, though noticeable, does not lead to a significant loss of character, integrity and data about this cultural heritage asset. Given the very high significance of the Hill of Uisneach, which is considered of international importance, and the low magnitude of impact as a result of the Proposed Development, the overall significance of effects is considered to be ‘Moderate’ and ‘Long-Term’ (EPA, 2022).

In terms of Significance of Effects – Moderate is classified as ‘*An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends*’ (EPA, 2022).

The presence of wind turbines in long-distance views is consistent with evolving national climate policy and the changing character of Ireland’s working landscapes. The Proposed Development is therefore considered acceptable in this context and is in alignment with emerging baseline trends.

It is noteworthy, however, that the potential effect of the Proposed Development as stated above, is reversible and will only last for the duration of the 30-year operational lifetime of the proposed turbines. It is considered that the potential effect to the Hill of Uisneach, the monuments located thereon, and its wider setting will be reversed once the proposed turbines are removed after their lifetime of operation.

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ANNEX 1: TABLE OF RELEVANT MONUMENTS

RMP / SMR No.	Type	Townland	ITM E	ITM N	Description
WM024-025	Barrow – unclassified	Togherstown	629442	749945	Enormous subcircular mound (35m N-S x 30m E-W) reaching up to 4.4m in height on NE side, with sharply defined edge marked by a clear step or scarp. Traces of a shallow ditch are visible immediately beyond the step, running clockwise from S to N or NE; where clearest at NW, this is up to 1.5m in width, which would give an overall diameter for of 38m N-S.
WM024-027	Ringfort – rath	Ushnagh Hill	629262	749842	Bivallate ringfort described in 1971 and 1976 as an oval-shaped area (dims. 47.60m NE-SW and 35.50m NW-SE) enclosed by an earth and stone bank, an intervening fosse and an outer bank. The inner and outer banks are substantial and the intervening U-shaped fosse is wide and deep (D 3m).
WM024-027001	House - indeterminate date	Ushnagh Hill	629262	749842	In the S quadrant of the interior of a ringfort (WM024-027) are the remains of a rectangular-shaped house site (dims. 5m NE-SW; 4m NW-SE) defined by a slight earthen bank (overall Wth 1.4m; Wth at top 0.4m; H 0.25m) with a gap (Wth 3.3m) in the S side, at the SW corner, which may represent a doorway.
WM024-028	Ringfort – cashel	Togherstown	629465	749891	The structure consists of the following parts: 1. The Outer Fosse, now almost completely filled, and represented by a shallow depression in the ground, running round the entire site, but most clearly traceable to the north-west and the east. 2. The Outer Vallum, much abraded. 3. The Outer Area, divided irregularly by cross walls radiating like the spokes of a wheel (here called the Radial Walls). 4. The Inner Fosse, resembling the Outer Fosse, and, like it, almost completely filled. 5. The Inner Vallum, in much better condition than the Outer Vallum, and enclosing 6. The Inner Area, raised to a height of about 5 ft. [1.5m], above the level of the surrounding country, on the southern and western sides.
WM024-028001	Rock art	Togherstown	629455	749885	This stone was found by Macalister and Praeger (1929-31) in the course of their

					excavations of a ringfort (WM024-028). It is now housed in the National Museum of Ireland (DU018-407).
WM024-028002	House - indeterminate date	Togherstown	629455	749885	In W quadrant of ringfort (WM024-028) are the remains of a rectangular-shaped house site defined by well-preserved stone built walls and with an entrance in the N side. A souterrain (WM024-028003) is located within this structure.
WM024-028003	Souterrain	Togherstown	629454	749892	In W quadrant of ringfort (WM024-028) are the remains of a rectangular-shaped house site (WM024-028002) with a souterrain (WM024-028003) located within this structure.
WM024-028004	Souterrain	Togherstown	629463	749876	In W quadrant of ringfort (WM024-028) are the remains of a rectangular-shaped house site (WM024-028002) with a souterrain (WM024-028003) located within this structure and a second souterrain excavated in 1929-30.
WM024-029	Moated site	Togherstown	629620	749840	A large rectilinear enclosure (int. dims. 47m N-S; 35.5m E-W), with an appreciable slope from the S end to the N end, bounded by the remains of a substantial earth and stone rampart with remains of a narrow fosse at its external foot and remains of a slight counterscarp bank of earth and stone.
WM024-029001	House - indeterminate date	Togherstown	629604	749829	Possible house site located in SW corner of possible moated site (WM024-029).
WM024-030	Barrow - stepped barrow	Mweelra	629592	749452	Roughly circular earthwork (Diam. 41m N-S x 37m E-W) comprising a low, poorly defined circular mound or platform (Diam. 19.4m N-S x 18.2m E-W) surrounded by a lower, berm-like feature ranging in width (from base of inner mound to external ground level) from 9m on S side to 12.5m on N side, and up to 1.2m in height on W side; overall height of monument reaches up to 2.5m above ground level on W side. Inner mound rises up to 1.6m above berm on SE side, being much higher on S than on N side.
WM024-058	Barrow - ring-barrow	Ushnagh Hill	628985	749110	Small circular bank of earth/stone with shallow internal fosse surrounding a small central mound (diam. 8m E-W) of stones.
WM024-059	Megalithic tomb – unclassified	Ushnagh Hill	629029	749006	The monument known as ‘St Patrick’s Bed’ crowns the highest point of the Hill (180m above sea-level), near the western end of the summit plateau, and

					commands extensive, panoramic views over the central plain of Ireland.
WM024-059001	Enclosure	Ushnagh Hill	629033	749000	Two previously unrecorded enclosures (WM024-059002) were revealed by geophysical prospection around St Patrick's Bed (WM024-059). The larger of the two enclosures can be traced as a shallow curving depression to the S of St Patrick's Bed, and was shown by geophysical survey to encircle the monument. It is evidenced as a narrow, circular band of enhanced magnetic values, 0.5-1m in width and 35m in diameter, with suggestions of a second, concentric arc running 3-4m inside it.
WM024-059002	Enclosure	Ushnagh Hill	629022	748998	St Patrick's Bed is located just N of the centre of the enclosure, which also overlaps with a smaller – and possibly earlier – enclosure (WM024-059002)
WM024-060	Ritual site - holy well	Ushnagh Hill	629132	748513	At the well by the fort is an upright stone about 3 ft. [0.9m] high...well called Tubber na Slath and was formerly a place of pilgrimage but is now disused
WM024-060001	Standing stone	Ushnagh Hill	629132	748513	At the E head of the well (WM024-060) is a limestone boulder of square shape which may have been deliberately erected there
WM024-062	Earthwork	Ushnagh Hill	629200	748901	Poorly preserved roughly rectangular-shaped area (dims. c. 47m N-S x 65m E-W) defined by a low bank best with external fosse best visible from NW-N-E, elsewhere the enclosing element has been levelled. A lot of stone outcrop is visible in SE quadrant of earthwork.
WM024-063	Barrow – unclassified	Ushnagh Hill	629178	748512	Bivallate earthwork described in 1971 as a roughly circular-shaped area (dims. 36m WNW-ESE; 31m NNE-SSW) defined by an inner fosse and two outer banks. A narrow, shallow inner fosse is visible at W, NNW and E. There are two widely spaced outer earthen banks which are not concentric, although they make contact at N.
WM024-064001	Burial ground	Ushnagh Hill	629307	749013	This burial ground is to N of a possible church (WM024-064003-) and overlooks a ritual pond (WM024-064002-) to the immediate SSE. Monument described in 1971-1983 as a sub rectangular-shaped area (dims. 35.5m E-W) defined by a bank and field walls and an outer fosse.

WM024-064002	Ritual site – pond	Ushnagh Hill	629328	748967	Lough Lugh is a small lake located in a slight hollow (166m above sea-level) between the western and eastern summits of Uisneach, at the approximate centre of the monument complex (WM024-177—). The lake has been identified as Loch Lugborta where, according to early Irish tradition, the god Lug was drowned by the mythical trio, Mac Cuill, Mac Cecht and Mac Greine and subsequently buried in a cairn nearby. The lake measures c.80m N/S by 60m E/W and has a floating vegetation mat at its centre. Its associated mythology and comparison with similar bodies of water at other royal centres, such as within the Navan Complex, Co. Armagh, suggest that the lake might have been a ritual focus in prehistory.
WM024-065	Hut site	Ushnagh Hill	629170	748870	A small D-shaped enclosure which possibly represents the remains of a hut site located to the SE of St. Patrick's Bed (WM024-059) . Levelled monument described in 1983 as no surface remains visible of possible hut site which was located near the SW corner of a large rectangular-shaped earthwork (WM024-062). Levelled monument described in 1983 as no surface remains visible of possible hut site which was located near the SW corner of a large rectangular-shaped earthwork (WM024-062).
WM024-066	Ringfort – rath	Rathnew	629516	748819	A conjoined enclosure excavated by Macalister and Praeger (1928), the results of which have been recently re-interpreted by Schot (2006). The conjoined enclosure is one of a cluster of monuments situated on the Hill of Uisneach
WM024-066001	Ringfort – rath	Rathnew	629469	748810	A conjoined enclosure excavated by Macalister and Praeger (1928), the results of which have been recently re-interpreted by Schot (2006). The conjoined enclosure is one of a cluster of monuments situated on the Hill of Uisneach
WM024-066002	House – medieval	Rathnew	629520	748804	House site described as the 'Eastern House' in centre of a conjoined enclosure
WM024-066003	Souterrain	Rathnew	629458	748810	Souterrain located beneath a house site (WM024-066004-) located in W quadrant of conjoined enclosure

WM024-066004	Hut site	Rathnew	629463	748811	Hut site with souterrain (WM024-066003) underneath described as the 'Western House' in W area of a conjoined enclosure (WM024-066)
WM024-066005	Souterrain	Rathnew	629498	748821	Souterrain located beneath a pile of stones in centre of a conjoined enclosure (WM024-066)
WM024-067	Road - road/trackway	Lalistown, Rathnew	629517	748486	Embanked roadway running N-S towards the top of the Hill of Uisneach is annotated 'Ancient Road' on all editions of the OS 6-inch map
WM024-068	Enclosure	Rathnew	629943	748655	D-shaped earthwork enclosed by a bank, with internal divisions
WM024-173	Barrow - mound barrow	Mweelra	629493	749055	Sharply defined circular tumulus (Diam. 15.5m N-S x 15.6m E-W) with irregular stony cap containing protruding boulders close to ESE side. Mound rises up to 2m in height above surrounding ground on NW side, its stony cap being up to 0.51m in height.
WM024-176	Building	Ushnagh Hill	628946	749030	Possible site indicated as 'Ruin' on the 1837 OS Fair Plan map. There is a scatter of boulders, however, these form no definite or clearly definable pattern and there is no trace of a building or of the foundations of a building.
WM024-187	Hilltop enclosure	Rathnew, Ushnagh Hill, Mweelra	629488	749090	The largest monument at Uisneach, this enclosure is defined by a curvilinear ditch measuring nearly 200m in diameter and straddles three adjoining townlands on the E summit of the Hill
WM024-192	Standing stone	Kellybrook	628836	748713	A recumbent stone pillar, possibly a collapsed standing stone, lies on the SW slope of Uisneach, c.80m N of the Cat Stone (WM024-061). It consists of a roughly rectangular limestone slab, with a NW/SE long axis, and measures 1.88m in length by 0.77m wide and c.0.45m in maximum thickness.
WM024-193	Ritual site - holy well	Ushnagh Hill	629350	748680	Holy well dedicated to St. Patrick. The well is surrounded by a stone pavement and enclosed within a modern wall of rectangular plan, with iron railings. Next to the well on the NW is a squat, upright stone, which may be of archaeological significance.
WM024-194	Ring-ditch	Ushnagh Hill	629015	748969	This possible burial monument was identified by geophysical survey c.30m S of St Patrick's Bed (WM024-059), in close proximity to two palisaded

					enclosures (WM024-059001/002). It appears as a semi-circular arc of positive magnetic values (c.12m in diameter), extending clockwise from the SW around to the NE, where it is defined by a bulbous terminal, possibly a pit.
WM024-195	Barrow - mound barrow	Ushnagh Hill	629067	748923	This feature is located on a slight rise littered with surface outcrop, c.75m SE of St Patrick's Bed (WM024-059), and may be a small barrow. It consists of a low, circular earthen mound, c.5.5m in diameter and 0.4m in maximum height, with a gently rounded profile. There are no surface indications of an enclosing ditch or bank.
WM024-196	House – medieval	Ushnagh Hill	629078	748897	Approximately 20m down-slope to the SE of the possible mound-barrow (WM024-195) is a set of conjoined earthworks which may comprise the remains of a sub-rectangular house of medieval date. The site consists of two slightly sunken areas bounded by a series of low banks of earth and stone, with a NW/SE long axis (overall dimensions 12.8m by 6.3m).
WM024-197	Ring-ditch	Mweelra	629571	749137	This small ring-ditch was recorded by geophysical survey c.20m NE of the hilltop enclosure (WM024-187). The ditch is defined by a discontinuous circular band of positive magnetic values, c.1m in maximum width and 7m in diameter, with several pit-type anomalies along its circuit. A large pit-type feature lies at the centre of the enclosed area and other possible pits varying from 1m to 2.5m in diameter surround the ring-ditch on the W, E and S.
WM024-198	Ring-ditch	Mweelra	629423	749018	Identified by geophysical survey in 2005, this ring-ditch is located on a low rise in the western sector of the hilltop enclosure (WM024-187—), approximately 65m SW of the mound (WM024-173—). It is evidenced as a semi-circular band of positive magnetic values, extending clockwise from N to SE, and has a projected diameter of c.9m. A possible pit lies at the centre of the ring-ditch.
WM024-199	Ring-ditch	Mweelra	629458	748980	This small, sub-circular enclosure was identified by geophysical survey in 2005 and appears to be a partly ploughed-out ring-ditch. Located in the SW quadrant of the hilltop enclosure (WM024-187), c.70m SW of the mound (WM024-173), it is defined by fragmented linear and

					pit-type responses and measures c.8.5m in maximum diameter.
WM024-200	Ring-ditch	Rathnew	629556	748769	This circular ring-ditch was revealed by geophysical survey c.14m SE of a large conjoined ringfort (WM024-066) in 2004. It is evidenced geophysically as a positive annular feature, c.9m in diameter, which is best defined on the N where it has a maximum width of c.1.5m.
WM024-201	Ring-ditch	Rathnew	629556	748673	This well-defined ring-ditch was identified by geophysical survey in 2004 approximately 100m SSE of the conjoined ringfort (WM024-066) and c.50m E of the ancient roadway (WM024-067). It registers geophysically as a positive magnetic ring, 7m in diameter, with a pit-type feature c.1.5m in diameter at its centre.
WM024-202	Barrow - ring-barrow	Rathnew	629617	748650	Identified during field survey, it survives as a slightly raised, circular area, c.0.15m in height and 3m in diameter, surrounded by a shallow ditch and very low, external bank measuring c.7m in overall diameter.

National Monument No.	RMP / SMR No.	Type	Townland	ITM E	ITM N	Description
155	WM024-061	Barrow – pond barrow	Kellybrook	628837	748633	Subcircular enclosure delimited by a broad, low bank (Diam. 22.7m N-S x 25.5m E-W) surrounding a hollowed-out area roughly centred on an enormous, fragmentary limestone boulder (H. c. 4.5m) known as the ‘Catstone’, which is 3.7m from the bank where this is closest on SW side; interior reaches below external ground level and has presumably been excavated to gather material for the bank, and possibly to expose the lower part of the Catstone
NA	WM024-069	Ringfort – rath	Kellybrook	628944	748469	A roughly circular area (diam. 29.8m ENE-WSW; 28m NNW-SSE) enclosed by a low earth and stone bank with trees growing on it

