Appendix 15-2: Intertidal Archaeological Survey Report

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Environmental Impact Assessment Report – Addendum
Appendix 15-2: Intertidal Archaeology Survey Report

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Appendix 15-2
A1 C01
December 2025

PREFACE

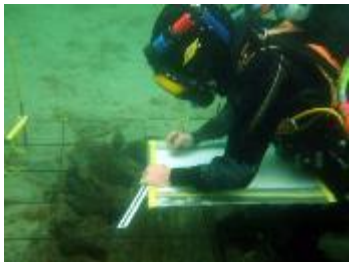
This Addendum provides supplementary information in response to a Request for Further Information (RFI) received in April 2025 from An Coimisiún Pleanála (ACP) (formerly An Bord Pleanála) regarding the planning application (case reference ABP-319799-24) for the Oriel Wind Farm Project (hereafter referred to as "the Project").

The intertidal archaeology surveys were completed in January 2025 under licences 24D0267 and 24R0575. Under the license conditions, the following report was issued to the National Monuments Service in May 2025.

The surveys conducted and following report are based on the project design that was most up to date at the time. Due to the request received in April 2025, notably RFI 13 and 6.K, the TJB options and onshore cable route were revised within the planning application boundary to minimise potential impacts on the cliff at Dunany Beach and the Dunany Point County Geological Site (CGS LH017).

Therefore, the maps included in the following report (Figures 3 and 4) show the design options that have since been updated to the revised options shown in chapter 5: Project Description (EIAR volume 2A Addendum). The revised options are within the extent of the area covered by the intertidal survey and assessment completed by ADCO and the revised design options do not change the assessment or recommendations of this report.

Intertidal Archaeology Survey
Oriel Wind Farm project
Dunany, Co. Louth
24D0267, 24R0575

Intertidal Archaeology Survey
Oriel Wind Farm project
Dunany, Co. Louth
24D0267, 24R0575

Issued 28 May 2025

Project Director Niall Brady
Report Niall Brady

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LIST OF ABBREVIATIONS

ADCO	The Archaeological Diving Company Ltd
AIA	Archaeological Impact Assessment
CD	Chart Datum
DHLGH	Department of Housing, Local Government & Heritage
E	Easting
N	Northing
HWM	High Water Mark
IAS	Intertidal Archaeology Survey
ITM	Irish Transverse Mercator
LWM	Low Water Mark
NGR	National Grid Reference
NIAH	National Inventory of Architectural Heritage
NMI	National Museum of Ireland
NMS	National Monuments Service
OD	Ordnance Datum
OS	Ordnance Survey
RMP	Record of Monuments and Places
RPS	Record of Protected Structures
SMR	Sites and Monuments Record

EXECUTIVE SUMMARY

Introduction

An Intertidal Archaeology Survey has been completed at Dunany, Co. Louth, to inform the design process and EIAR for the proposed Oriel Wind Farm project.

Receiving Environment

A series of known archaeological sites (LH019-002; LH016-005001 and 005002) and sites of architectural heritage are located at Dunany but away from the proposed project area.

Proposed works

Dunany is identified as the proposed landfall location of the export cable for the Oriel Wind Farm project.

Archaeological survey

The archaeological survey was carried out on 13/01/2025 at Low Water. The area surveyed extended approximately 830m north-south along the foreshore and 270m east-west.

The foreshore comprises a raised pebble berm that overlies a gently sloping pebble and sandy bed reaching out to sea.

No evidence for submerged landscape, shipwreck or other archaeologically significant features were recorded within the proposed project area.

The remains of an unrecorded stone-built structure (reference ADCO-03) were observed outside and immediately adjacent to the proposed project area.

The site of the 'Mad Chair of Dunany' (ADCO-01) was observed north of the proposed project area.

Metal-detection survey observed target features throughout the project area but none of the targets revealed themselves to be archaeologically significant, and comprised aluminium cans for the most part and lost fishing lures.

Impact Assessment

The landfall for the export cable will require:

- Excavation of a *c.* 5m-wide by *c.* 3m-deep trench for *c.* 800m across the intertidal foreshore between the LWM and the HWM, within a 30m-wide working corridor.
- Excavation works above the HWM to facilitate construction of a transition joint bay.

Connection to the onshore cables from the transition joint bay will require:

- Excavation above the HWM of a 5m-wide by *c.* 3m-deep trench for *c.* 10 – 200m, within a 30m-wide working corridor.

There will be no impact from the project on the previously unrecorded stone-built structure (ADCO-03), the 'Mad Chair of Dunany' (ADCO-01), or any of the recorded cultural heritage sites in Dunany, all of which lie outside the proposed project area.

Recommendations

Archaeological monitoring of the excavation works across the intertidal zone, at the transition joint bay, and inland for the onshore cables is required.

Archaeological monitoring of topsoil stripping to provide the temporary works compound and all associated supporting ground-disturbance works is required.

A series of archaeological management measures are included.

Recommendations are subject to the approval of the National Monuments Service at the Department of Housing, Local Government and Heritage.

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1.0 Introduction

An Intertidal Archaeology Survey (IAS) of the foreshore at Dunany, Co. Louth, was carried out by the Archaeological Diving Company Ltd (ADCO) in January 2025 under licence granted to the report author by the Department of Housing, Heritage and Local Government (DHLGH), references 24D0267, 24R0575 (Figure 1).

The IAS is based on desktop review and intertidal survey that comprised a walkover survey conducted in tandem with a metal-detector survey during Low Water on 13/01/2025.

The IAS was carried out as a prerequisite to inform the design process and archaeological impact assessment for the proposed Oriel Wind Farm Project. The IAS meets the recommendation noted in the submission made by the Development Applications Unit of the DHLGH to An Bord Pleanála in relation to the proposed project, which recommended that an intertidal archaeological survey, including metal detection, be undertaken at the proposed landfall at Dunany Point.

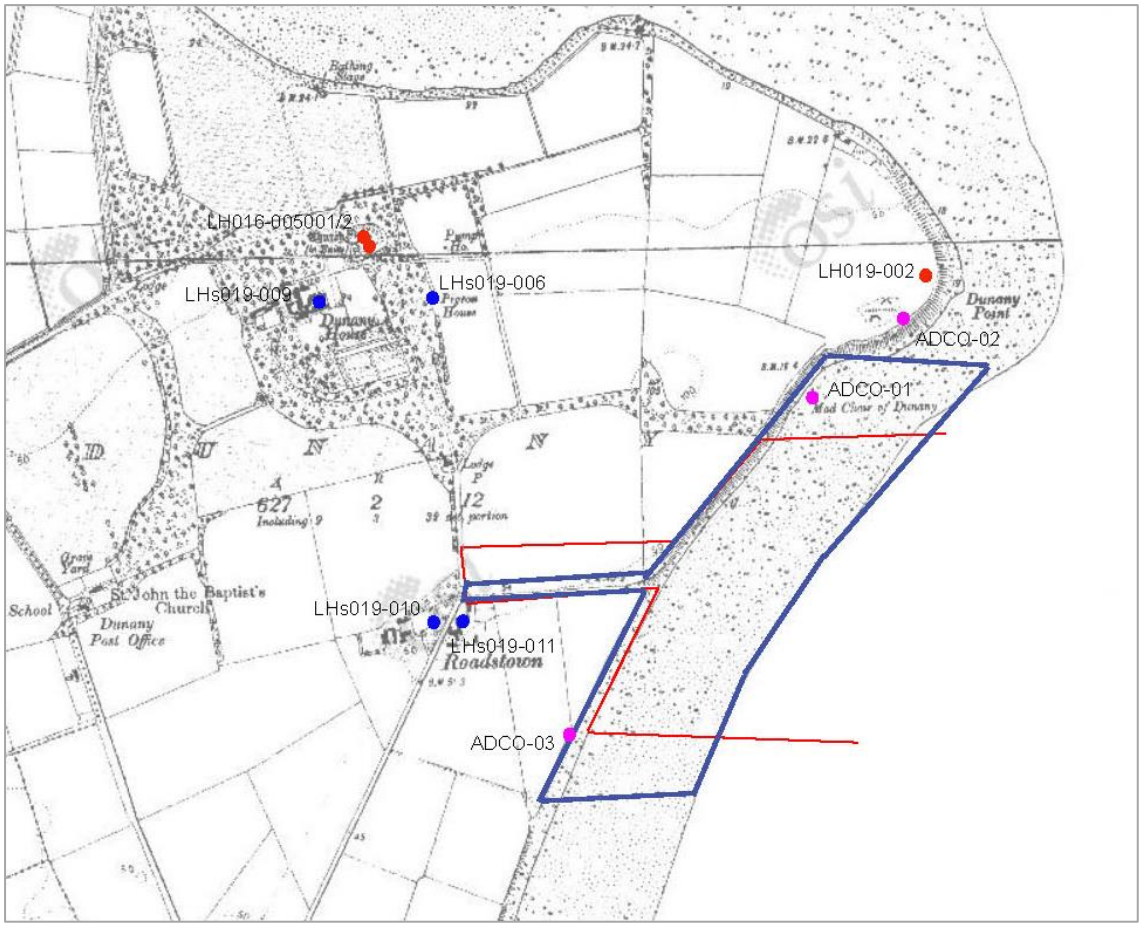

Figure 1: Site location based on OS 3rd Edition 6-inch map (*c.* 1930s), showing cultural heritage sites; project Planning Application boundary (in red) and ADCO IAS survey area (in blue).

Source: https://heritagedata.maps.arcgis.com/

2.0 Receiving environment

Dunany Point forms the southern reach of Dundalk Bay and includes a section of coastal cliff that stands 8–10m above the foreshore, north of the planning application boundary.[1] The coastal cliff is comprised of Quaternary Age glacial sediment that consist mainly of muddy sediments forming part of the Dunany Ridge moraine, which served as the southernmost extent of glaciomarine conditions in the Irish Sea Basin during the last deglaciation.

It is little surprise that the headland is the location of a coastal promontory fort, referenced as Register of Monuments and Places (RMP) LH019-002- ((Figure 1, Table 1). Promontory forts in Ireland are considered to date to late prehistory, transitioning into the earliest historical centuries; they represent an aspect of life in late Iron Age/very early Medieval Ireland, and are clearly associated with maritime activities. Positioned on Dunany Point, the fort would provide good viewpoints across Dundalk Bay to the north and Clogherhead to the south, and one may assume its occupants maintained interests in coastal trade. Such trade would include fishing and also import/export from across the Irish Sea with Roman Britain. Recent archaeological research of the coastal promontory fort at Drumanagh/Loughshinny in north Co. Dublin, for example, has confirmed links with Roman Britain, and several brooches have been recovered that are Roman in origin.[2]

Promontory forts tend to be created by excavating an enclosing ditch and creating an embankment inside the ditch, offering protection to the interior. The site at Dunany is believed to derive its name from *Dún Áine*–Ann's Fort, which in turn becomes the anglicised townland name, Dunany. There are no upstanding remains of the promontory fort, which is thought to have been destroyed by coastal erosion. Examination of orthoimages, however, reveal a large curving cropmark feature that runs along the west side of the Point, with disturbed ground inside the arc (Figure 2). The cropmark measures some 120m in diameter, and may suggest the line of one of the enclosing elements of the former promontory fort.[3] The potential for associated remains to lie across the present-day foreshore needs to be considered.

[1] 'Dunany Point', Louth County geological site report (no date, http://spatial.dcenr.gov.ie/GSI_DOWNLOAD/Geoheritage/Reports/LH017_Dunany_Point.pdf)

[2] Various, *Late Iron Age and 'Roman' Ireland*, Discovery Programme Reports 8 (2014).

[3] The cropmark is indicated on the Osi orthoimage for 2011-13 (https://heritagedata.maps.arcgis.com/), and is also recorded on Google Maps (https://www.google.co.uk/maps/).

Figure 2: Orthoimage showing cultural heritage sites at Dunany. Note the roughened ground on Dunany Point, which may represent a cropmark feature that is the buried remnant of the promontory fort.

Source: https://heritagedata.maps.arcgis.com/

Historic mapping records the 'Mad Chair of Dunany' as a cartographic feature on the foreshore north of the project area (Table 1 ADCO-01, Figure 1). The 'chair' is a large rock that has become associated with the mythical Queen Áine, who is said to have sat there to look across the Irish Sea towards her lover who never returned. There are other large stones on this part of the foreshore that are considered to be glacial erratics, fallen from the cliff as it has eroded inland over time.

A more recent feature is also associated with the promontory fort; namely a Coastal Defence site that was constructed during the Emergency and served as Look-out Post Éire No. 2 (Table 1 ADCO-02). It is one of 83 Look-Out Posts that were built at strategic points around the coast at ten to twenty mile intervals from Ballagan Head in Co. Louth to Inishowen Head in Co. Donegal. The Posts were monitored 24 hours a day in eight- or twelve-hour shifts as part of the Coastal Watching Service. Two men from the local Defence Forces manned the station, one to operate

the phone and the other to patrol outside.[4] The site is not recorded in the archaeological registers and is not a protected structure. The remains comprise the base of a short concrete-walled one-roomed structure. It is located on the cliff edge and faces southeast.

Reference	Type	Name	ITM E	ITM N	Proximity to development	Impact from development
LH019-002	Promontory Fort	*Dún Áine*	715908	791503	Outside. 320m north of application boundary	None
ADCO-01	Rock	Mad Chair of Dunany	715643	791298	Outside. 80m north of application boundary	None
ADCO-02	Coastal Defence	Éire No. 2	715807	791444	Outside. 220m north of application boundary	None
LH016-005001	Church	Dunany	714837	791585	Outside. 560m northwest of temporary works compound	None
LH016-005002	Graveyard	Dunany	714844	791567	Outside. 550m northwest of temporary works compound	None
LHs019-009	House	Dunany	714947	791466	Outside. 500m northwest of temporary works compound	None
LHs019-006	Pigeon House	none	714951	791483	Outside. 450m north of temporary works compound	None
LHs019-10	House	Seagrave	714965	790895	Outside. 15m from proposed 220 kV onshore cable	None
LHs019-11	House	none	715004	790894	Outside. 15m from proposed 220 kV onshore cable	None
ADCO-03	Cottage	None	715202	790691	Outside. Adjacent to application boundary	None

Table 1: Cultural heritage features in vicinity of the proposed project, listed from north to south.

[4] https://coastmonkey.ie/protecting-our-neutrality-ww2-lookout-posts/ See also Daire Brunicardi, 'The Coast Watching Service', in DeVoy *et al*,.*The coastal atlas of Ireland*, pp 534–536.

Two other archaeological sites are recorded in the townland; namely the Church (RMP LH016-005001) and graveyard (LH016-005002-) of Dunany. Both sites are located approximately 1km inland of Dunany Point, and are believed to date to the sixteenth century. The sites form part of grounds associated with Dunany House, an eighteenth-century two-storey house that was enlarged in the early nineteenth century and is a protected structure (Record of Protected Structures (RPS) reference LHs019-009 and National Inventory of Architectural Heritage (NIAH) reference 13901902). The grounds of the house also retain a Pigeon House, located 200m east of the house and 160m southeast of the church and graveyard. The Pigeon House is a protected structure (RPS LHs019-0006).

None of the above sites lie within or close to the planning application boundary. Two other protected sites also lie outside the project area but are closer to it: Seagrave House (RPS LHs019-10 / NIAH 13901903) and a second historic house (LHs019-011 / NIAH 13901904) lie either side at the head of the laneway leading from the beach in Roadstown, close to but south of where it is proposed to run the onshore cables that will extend west from the transition joint bay.

There are no records of submerged landscape or shipwreck within the planning application boundary at the landfall (see Figure 1).

There is no record of previous archaeological intervention within the project area.

One may conclude that while there is a range of cultural heritage sites in proximity to the proposed project area, there are no known sites within the planning application boundary at the landfall.

3.0 Proposed works

Dunany is identified as the proposed landfall location of the export cable for the Oriel Wind Farm project. The cable will come ashore south of Dunany Point and connect with a transition joint bay to be constructed above the High Water Mark (HWM) . Additional works are required to take the cables west from the transition joint bay to connect with the onshore cables. Two route options are being considered. Option 1 is to direct the cable along the existing access lane to the beach (Figure 3). Option 2 is to direct the cable across the field north of the lane (Figure 4).

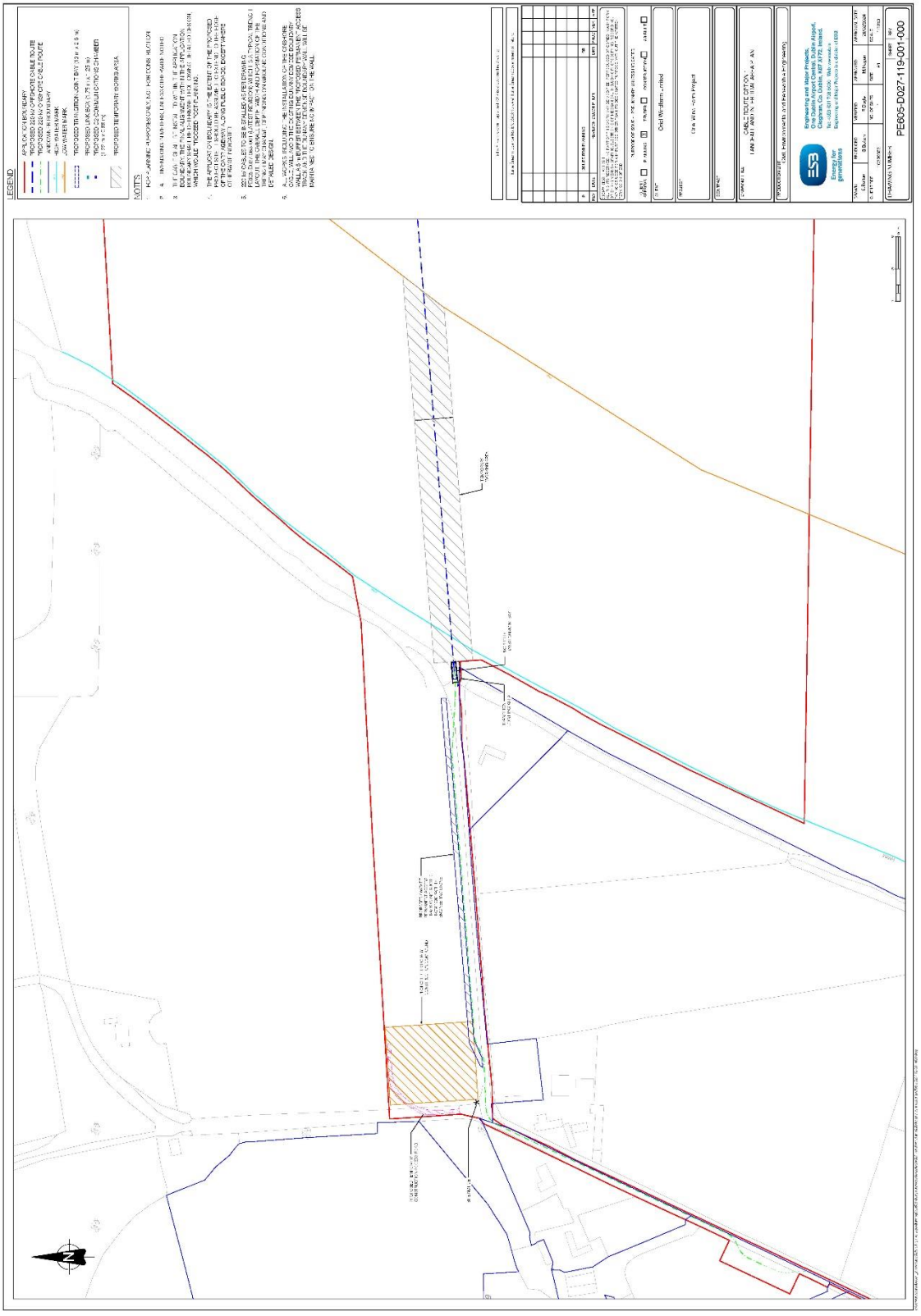

Figure 3: Project Drawing showing Cable Route Option 1 at landfall and intertidal zone.

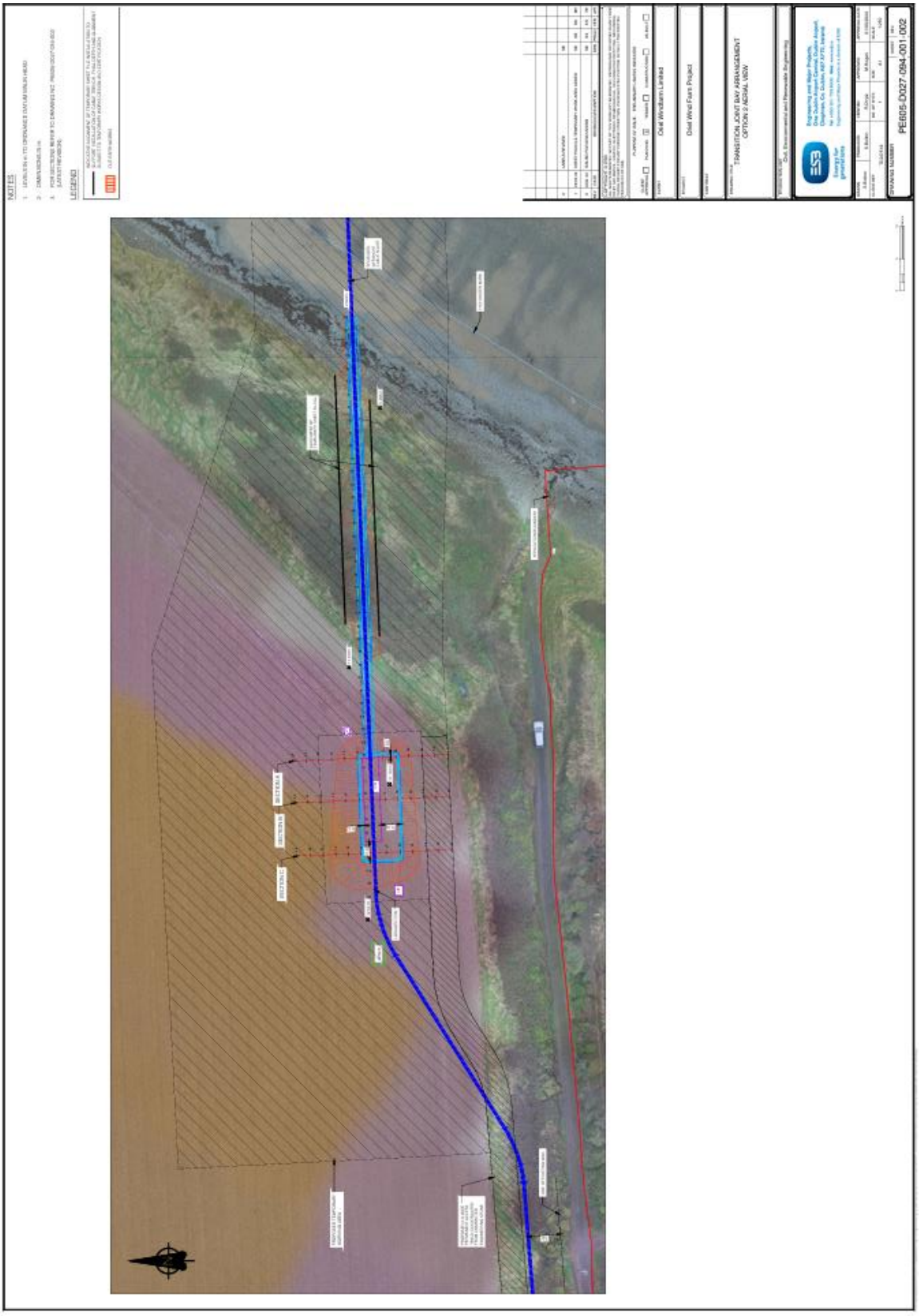

Figure 4: Project Drawing showing Cable Route Option 2 at landfall and intertidal zone.

4.0 Archaeological survey

The archaeological survey was carried out on 13/01/2025 at Low Water.[5] The area surveyed extended approximately 830m north-south along the foreshore and 270m east-west. All personnel were equipped with cameras and hand-held metal-detectors. Positioning was made using hand-held GPS devices.

Work proceeded systematically north-south, reaching from the HWM out to the Low Water Mark (LWM).

Walkover inspection included the access laneway to the beach from the local road at Roadstown.

4.1 Topography

Within the project area, the beach has a berm formed by pebbles that rises above the foreshore and the HWM, and is some 8m wide and up to 1m high. The foreshore falls away below the berm, with a carpet of pebble that continues a further 12m in width before giving way to a gently sloping sandy bed exposed at Low Water and reaching out to sea (Plate 1–Plate 4). Landward of the berm, a steep grass-covered scarp measuring some 2m in height gives way to grassy fields inland (Plate 5).

The topography changes to the north at Dunany Point, outside the project area, where the glacial moraine that forms Dunany Point rises higher, and a sea cliff has formed above the foreshore. The foreshore itself is a boulder field, filled with small rock, determined by geologists to be glacial erratics, which have fallen onto the beach as the Point is progressively eroded inland by the sea (Plate 6, Plate 7). The boulder field appears to be quite shallow in depth, which is in keeping with the suggestion that the stone is derived from the moraine cliff as it is eroded inland.

The access laneway to the beach occupies a cut through the ground surface on either side and slopes seaward as it approaches the beach (Plate 8, Plate 9). A tarmacadamed surface is in disrepair and reveals a gravel/pebble base.

4.2 Observations

There is no exposure within the project area, or indeed within the larger area inspected, of evidence for submerged landscape, in the form of expanses of peat or ancient woodland stumps. Nor is there any indication of former shipwreck, either as pieces of broken-up vessels or artefacts associated with a ships' assemblage.

4.3 ADCO-03, Structure ITM 715202E 790691N

One structure was however identified, lying at the base of the grassy scarp overlooking the foreshore. The site, referenced ADCO-03, is located outside and immediately adjacent to the southern side of the project area, and is recorded on the OS 3rd Edition 6-inch map series (Figure 5). The structure is the remains of a three-bayed building, comprising stone walls and is

[5] The archaeological team comprised Niall Brady and Dan Lenehan.

aligned north-south (Plate 10, Plate 11). The most complete bay is to the south and measures 7m long and *c.* 4m wide, the middle bay measures 3m long by 3m wide and the north bay measures 4m long by 3m wide. The walls are most exposed in the middle bay and the west side of the south bay, while elsewhere they are buried in vegetation. The walls retain small indications of mortar, indicating that much of the mortar has been leached out. On the seaward side, the exterior of the walls stand *c.* 700mm above the current ground surface, while on the landward side the walls stand internally up to 1.5m high, reaching the top of the scarp. The interior is very overgrown and it is not possible to discern doorways or windows. The middle bay is built against the south bay. The north bay is completely overgrown. It is likely that the feature is the remains of a three-bayed cottage, with the principal living being in the south bay, and the north bay perhaps serving as an outhouse. There will be no impacts from the proposed project on this structure.

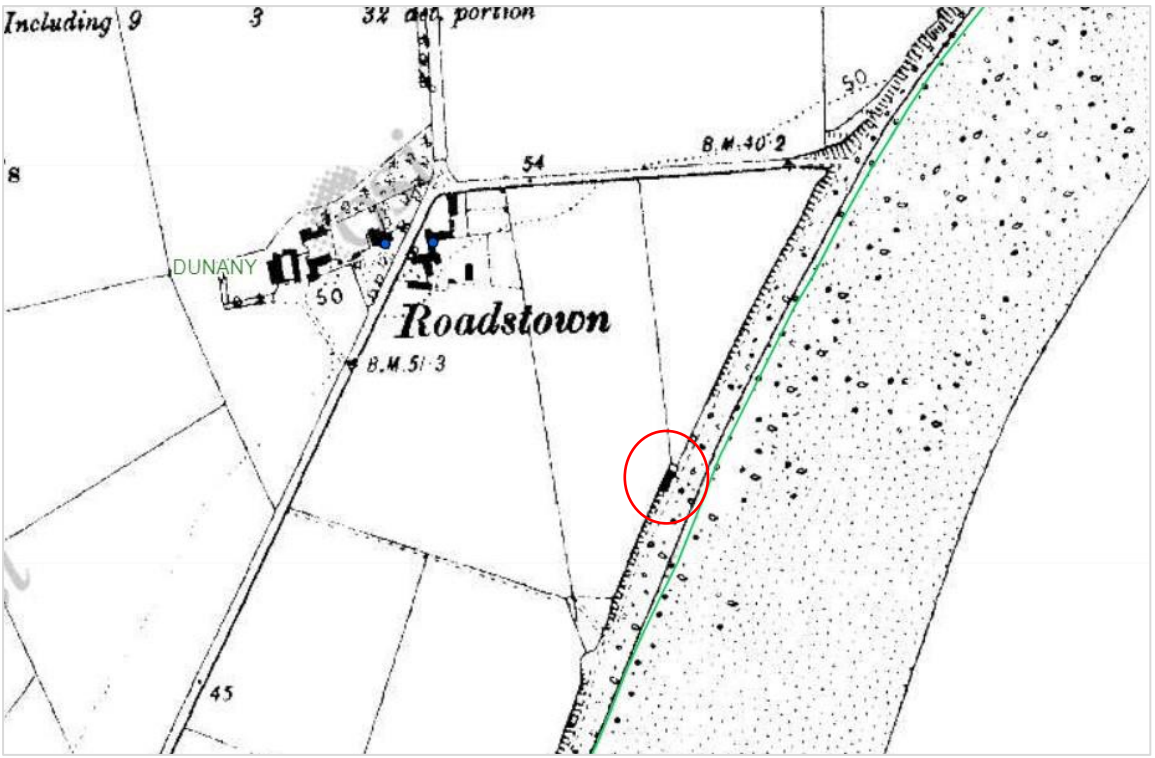

Figure 5: Detail from OS 3rd Edition 6-inch map showing location of ADCO-03 as recorded (red circle added). Source: https://heritagedata.maps.arcgis.com/

4.4 Mad Chair of Dunany

The Mad Chair of Dunany is an almost curvilinear triangular-shaped granite boulder that stands 900mm tall, 1.2m wide and 1m deep (Plate 12, Plate 13). Its surface offers a natural seat and is very smooth.

4.5 Metal Detector Survey

Metal-detection survey observed target features throughout the project area but none of the targets revealed themselves to be archaeologically significant, and comprised aluminium cans for the most part and lost fishing lures (Plate 14, Plate 15).

4.6 Conclusion

Archaeological inspection and survey was comprehensive within the project area and extended further than the project boundaries. One previously unrecorded feature (ADCO-03) was identified that lies outside and adjacent to the project area. There are no archaeological features recorded within the project area.

5.0 Impact assessment

The landfall for the export cable will require:

- Open-cut excavation of a *c.* 5m-wide by *c.* 3m-deep trench for *c.* 800m across the intertidal foreshore between the LWM and the HWM, within a 30m-wide working corridor.
- Excavation works above the HWM to facilitate construction of a transition joint bay.

The impacts are summarised on Figures 3 and 4.

Connection to the onshore cables from the transition joint bay will require:

- Excavation above the HWM of a 5m-wide by *c.* 3m-deep trench for *c.* 10 – 200m, within a 30m-wide working corridor.

There will be no impact from the project on the previously unrecorded stone-built structure (ADCO-03), the ‘Mad Chair of Dunany’, or any of the recorded cultural heritage sites in Dunany, all of which lie outside the proposed project area.

6.0 Recommendations

6.1 Pre-construction phase measures

No additional pre-construction archaeological measures are required.

6.2 Construction phase measures

Archaeological monitoring of the excavation works across the intertidal zone, at the transition joint bay, and inland for the onshore cables is required. Archaeological monitoring of topsoil stripping to provide the temporary works compound and all associated supporting ground-disturbance works is required. These measures were recommended in the EIAR (see section 5.11 of volume 2B, appendix 5-1: CEMP and section 26.10.5 of volume 2C, chapter 26: Cultural Heritage).

6.3 Archaeological Management Measures

- Retaining a project archaeologist/s. An experienced and competent maritime archaeologist will be retained by the project sponsor for the duration of the relevant works.
- Archaeological licences will include detailed method statements that outline the rationale for the works, and the means by which the works will be resolved. Licence applications take a minimum of four weeks to process through the DHLGH, and advance planning is required to ensure that the necessary permits are in place before site works commence.
- Archaeological monitoring will be carried out by suitably qualified and experienced archaeological personnel licensed by the DHLGH. The monitoring will be undertaken in a safe working environment that will facilitate archaeological observation and the retrieval of objects that may be observed and that require consideration during the course of the works. Archaeological monitoring will include a finds retrieval strategy that is in compliance with the requirements of the National Museum of Ireland.
- Oriel Windfarm Ltd will provide supporting resources to facilitate the archaeological monitoring work and resolution.
- All site work will be conducted in strict compliance and accord with the project sponsor's Health and Safety requirements.
- Archaeological reports and archive. It is a condition of archaeological licensing that a detailed project report is lodged with the DHLGH within 12 months of completion of site works. The report will be particular to the archaeological inputs and observations. The reports should be to publication standard and should include a full account, suitably illustrated, of all archaeological features, finds and stratigraphy, along with a discussion and specialist reports. Artefacts recovered during works need to meet the requirements of the National Museum of Ireland in terms of recording, conservation and storage.

Recommendations are subject to the approval of the National Monuments Service at the Department of Housing, Local Government and Heritage.

7.0 References

Anon, 'Dunany Point', Louth County geological site report (no date, http://spatial.dcenr.gov.ie/GSI_DOWNLOAD/Geoheritage/Reports/LH017_Dunany_Point.pdf

Brunicardi, Daire, 'The Coast Watching Service', in in DeVoy *et al., The coastal atlas of Ireland*, pp 534–536.

Various, *Late Iron Age and 'Roman' Ireland*, Discovery Programme Reports 8 (2014).

Online:

Google Maps, https://www.google.co.uk/maps/

Historic Environment Viewer, https://heritagedata.maps.arcgis.com/

Plate 1: View looking south from landfall along foreshore berm.

Plate 2: View looking north from foreshore berm.

Plate 3: View looking west from the LWM within proposed landfall corridor.

Plate 4: View looking west from LWM.

Plate 5: View looking west towards access laneway that is cut through the clay fields that stop abruptly at the beach forming a steep shallow scarp.

Plate 6: View looking west from LWM north of the Application boundary, showing boulder field.

Plate 7: View looking west inshore at north end of ADCO survey area showing glacial erratic among the boulder field.

Plate 8: View looking west along access laneway cut through the clay fields either side.

Plate 9: View looking east along access laneway towards the beach and landfall.

Plate 10: ADCO-03 viewed from northeast, showing exposed stone wall of middle bay and largely overgrown nature of the structure.

Plate 11: Aerial view captured by drone showing ADCO-03. North is to the top of the picture. The large south bay and the middle bay are clearly evident, with walls showing, while the north bay is indicated only by the lie of the covering vegetation.

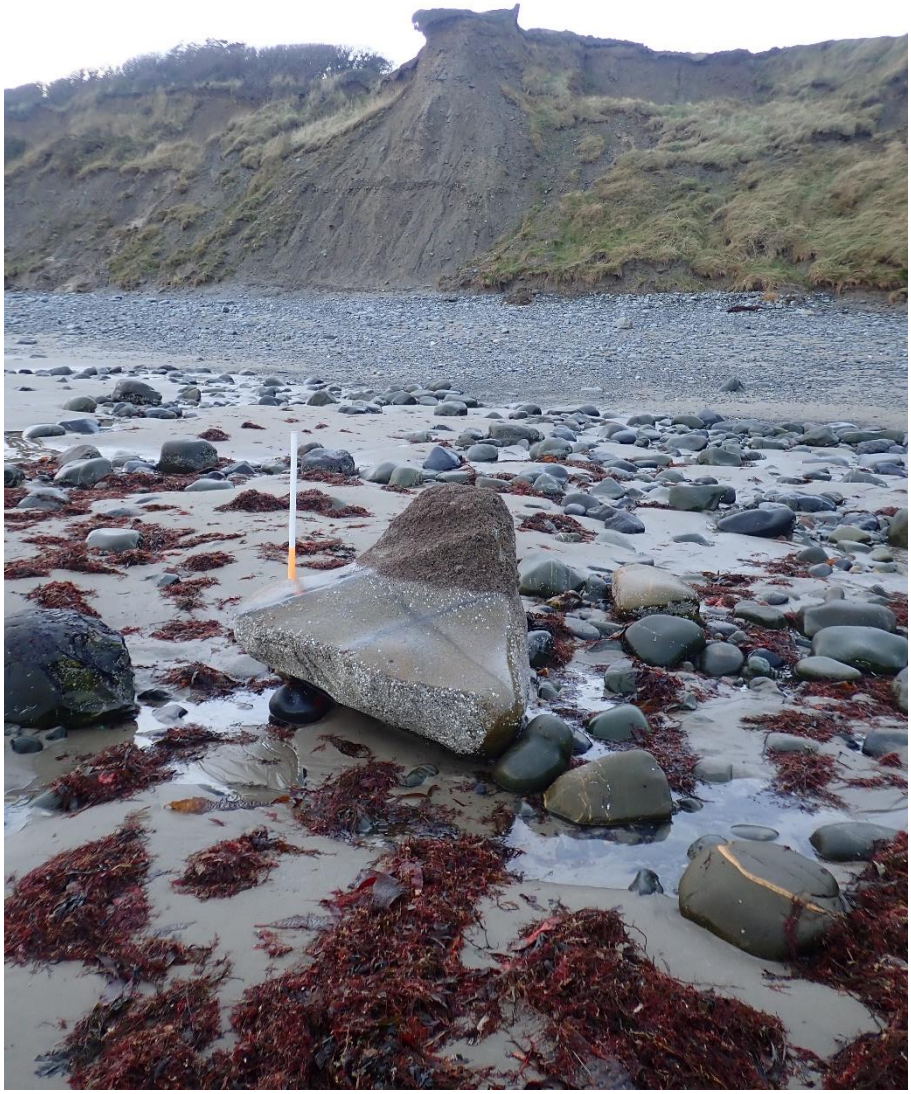

Plate 12: The 'Mad Chair of Dunany' (ADCO-02) viewed from northeast.

Plate 13: The 'Mad Chair of Dunany', close-up.

Plate 14: Metal-detector survey under way.

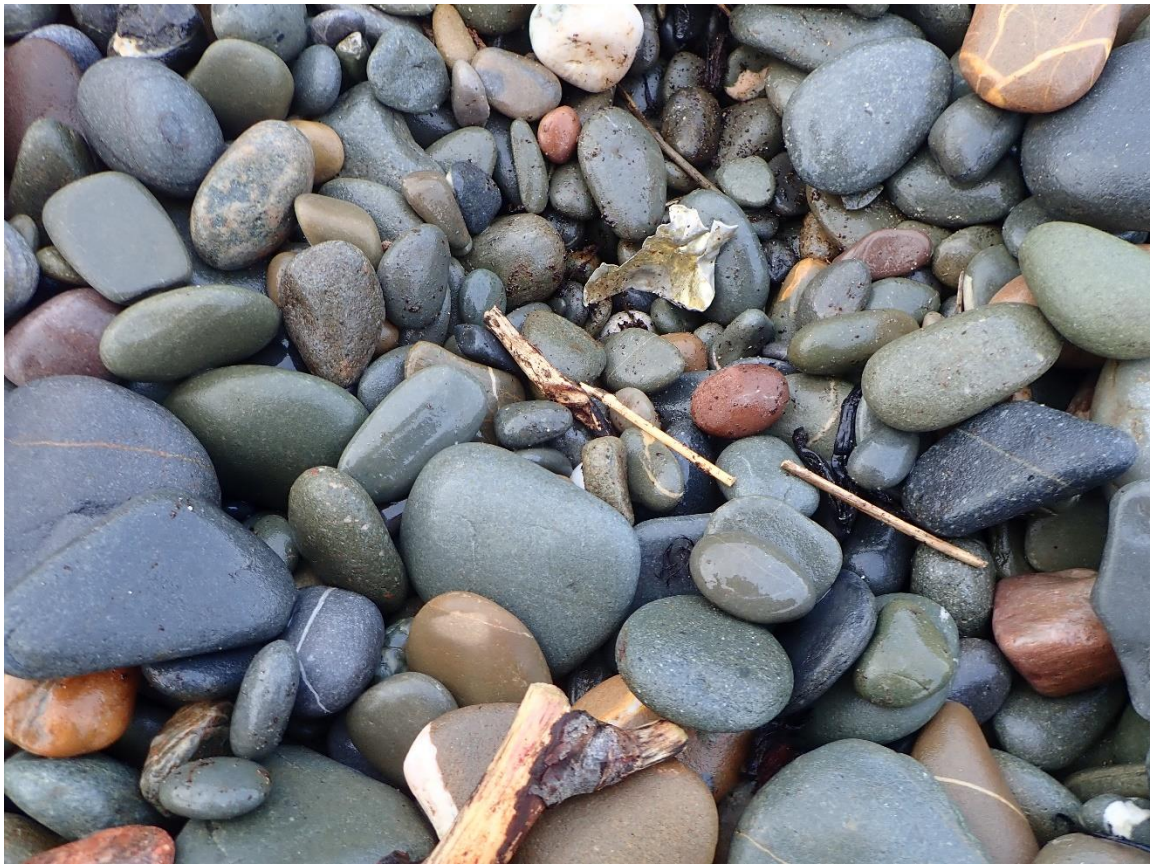

Plate 15: Typical metal detector target, a buckled scrap of an aluminium drinks can.

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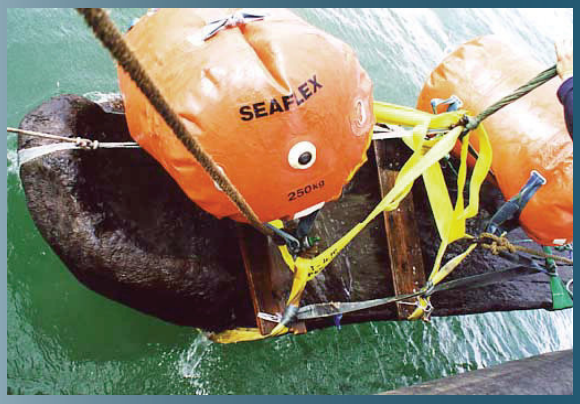

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