6 CULTURAL HERITAGE

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6 CULTURAL HERITAGE

6.1 Introduction

John Cronin & Associates has been commissioned by RPS Group, to assess the impact on the cultural heritage resource of the Proposed Development For purposes of this chapter the term 'Cultural Heritage' encompasses archaeological, architectural and cultural (folklore, placenames, traditions) heritage resources. The chapter structure outlines the methodology, assessment criteria and the legal and policy framework adopted in its compilation. An overview of the existing Cultural Heritage environment (baseline) and the identified impacts of the Proposed Development together with appropriate mitigation measures are presented in the assessment.

6.2 Methodology

6.2.1 Consultation

This section includes a summary of the consultation process. The EIA Screening Determination issued by the DfI (dated November 2020) stated the following in relation to cultural heritage:

It is considered the project has the potential to have a likely significant effect on cultural heritage (e.g.: on the setting of a group of prehistoric monuments in Culvacullion and Trinamadan townlands) by introducing an incongruous form of development into parts of the upland landscape. This impact has not been sufficiently mitigated and the impact is thus likely to be significant.

Consultation letter from Department for Communities (DfC) Historic Environment Division (HED) dated 23 July 2020 stated the following:

HED (Historic Buildings) has considered the impacts of the proposal on the buildings on the basis of the information provided, and advise that it considers that the proposal satisfies Paragraph 6.12 of Strategic Policy Planning Statement for Northern Ireland and Policy BH 11 (Development affecting the Setting of a Listed Building) of the Department's Planning Policy Statement 6: Planning, Archaeology and the Built Heritage. HED (Historic Monuments) has assessed the application and has some concerns regarding the impact of the proposed overhead powerlines (OHL) on the setting of a group of prehistoric monuments in Culvacullion and Trinamadan townlands, Co. Tyrone. HED (Historic Monuments) considers that any adverse impact upon the setting of these monuments should be avoided and advises that the applicant considers realigning the proposed OHL to avoid the impacts identified in the archaeological impact assessment accompanying the application. HED (Historic Monuments) does not require an EIA and consider that the Cultural Heritage report submitted with this application would form that chapter of and EIA if one is required.

A meeting was held on 2 February 2021 between the cultural heritage consultant and HED to discuss potential measures to alleviate the potential impacts on the monuments at Culvacullion and Tirnamadan. Following this another consultation letter was issued by HED date on 11 March 2021 stating the following:

HED (Historic Monuments) notes that it has been determined that this application requires an EIA to be submitted to support it and advises that an Archaeological and Cultural Heritage section should be included within it. An Archaeological Impact Assessment (AIA) has already been submitted for the proposed scheme and this could form the basis of the Archaeological and Cultural Heritage section within the EIA with revisions to reflect our previous comments on this scheme (received by planning on 23/07/2020).

Following consultation with HED it was agreed that a short section of the overhead line (poles 2216 – 2228) could be moved to the southwest (within the planning boundary). This would bring the overhead line closer to the Scheduled Monuments but will lower the elevation of the OHL and consequently reduce the amount of it that breaks the skyline over Slievemore hill and thus has the potential to reduce the overall visual impact on the Scheduled Monuments. Photomontages showing this section of line were amended accordingly.

A site meeting was held on 21 April 2021, attended by the archaeological consultant and representatives from NIE and HED. Scheduled Monument TYR018:008 and the stone arrangement were visited, and a discussion on the amended photomontage images was had. It was generally agreed that the primary views from both sites was towards the south and west (the valley of the Owenkillew River and beyond) and the amended section of overhead

line (poles 2216 – 2228) as represented in the amended photomontages reduced the impact in the landscape in views from the Scheduled Monuments (TYR018:008 & TYR018:056).

6.2.2 Desktop survey

A desktop survey of all archaeological and cultural heritage sites within an approximately 200m wide assessment corridor centred on the conductor alignment of the Proposed Development, was carried out in order to ascertain the heritage constraints and potential direct impacts therein. In addition, a further *circa* 1km wide study corridor centred on the Proposed Development was assessed in order to determine any potential indirect negative impacts of a visual nature on the cultural heritage resource, particularly Scheduled Monuments (context, setting, inter-visibility, group settings). Based on professional experience, and in the absence of published statutory guidance, it is deemed that these parameters provide a sufficient geographical scope of the surrounding landscape from which to research and assess these constraints and their contribution to the archaeological/built heritage potential or otherwise of the proposed linear development area.

The Northern Ireland Sites and Monuments Record, (the Sites and Monuments Record is a map-based record with data on approximately 15,000 archaeological sites and historic monuments in Northern Ireland) was the principal source for identifying archaeological and built heritage constraints and in addition the following sources were consulted:

- Industrial Heritage Record;
- Historic Buildings Register;
- Register of Historic Parks, Gardens and Demesnes;
- Battlesites Register;
- Defence Heritage Register;
- Historic cartographic sources and aerial photographs;
- Irish Excavations Database; and
- Consultation of all the available archaeological and historical literature for the area.

6.2.3 Field inspection

An inspection of the Proposed Development alignment was undertaken in March, May and August 2018, October 2019 and April 2021 by a team of suitably qualified and experienced archaeologists from John Cronin & Associates (JCA), in order to assess the existing and potential Cultural Heritage environment. Field survey consisted of a walkover archaeological inspection of the overhead line and underground sections within greenfield areas and a drive survey of the underground sections within the road carriageway (with site inspections on foot at the locations of cultural heritage sites and at occasional locations along the route). All recorded cultural heritage sites within the 200m assessment corridor were visited. Additionally, all Scheduled Monuments within the 1km wide study corridor were inspected. During field surveys and assessment of the proposed alignment, weather conditions were good, with good visibility.

6.2.4 Legal and Policy Framework for the Protection of Cultural Heritage

The principal basis for the protection of archaeological sites in Northern Ireland is the Historic Monuments and Archaeological Objects (Northern Ireland) Order (the 1995 Order). The law provides for historic monuments and archaeological sites to be protected in a variety of ways, including taking into state care and scheduling. In the former case, monuments are owned, leased or placed in the guardianship of the Department for Communities: Historic Environment Division. When sites and monuments are scheduled, they remain in private ownership but are protected from damage and unauthorised development. Sites are scheduled in accordance with quality and rarity criteria.

The DfC:HED are also concerned with the survival of other sites not protected under the 1995 Order and it is automatically consulted by the planning authority about every new development likely to affect a site or its setting. Furthermore, a licence is required to search for archaeological objects, or to carry out an excavation, and any archaeological object found must be reported. All archaeological excavations must be carried out under the direction of a qualified archaeologist, licensed by the DfC:HED. A licence application must be submitted for every excavation by the archaeologist who will direct the work, at least three weeks before the date on which work is due to begin.

In addition to archaeological sites, DfC:HED also has the responsibility under the Planning Act (Northern Ireland) 2011 (the 2011 Act) for the protection of post-medieval buildings and structures. Under Section 80 of the 2011 Act, the Department (DfC) is required to compile a list of buildings of special architectural or historic interest. There are more than 8,900 listed buildings/structures in Northern Ireland (as at April 2020); varying from fine churches and country houses to thatched cottages and post boxes. To be selected for listing, a building must be assessed and evaluated against established criteria. Key elements include the age of a building, its condition, style, aesthetic quality, structure and any innovatory qualities (Source: DfC:HED).

Protection of the archaeological and built heritage resource are also provided for in the Planning context through defined policies and objectives set out in Planning Policy Statement 6 (PPS6) (1999) and the Strategic Planning Policy Statement for Northern Ireland (SPPS) (2015). Due cognisance of all relevant policies and objectives therein pertaining to the Cultural Heritage resource has been applied in the preparation of this report.

6.2.5 Assessment Criteria

The objective of the assessment process is to identify and evaluate the predicted significant effects arising from the proposal.

The methodology used for this assessment has been prepared in accordance EIA requirements of codified Council Directive 2011/92/EU as amended by EIA Council Directive 2014/52/EU; and as implemented under *The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017.*

The following criteria (based on Environmental Protection Agency (EPA) (2017) and International Council of Monuments and Sites (ICOMOS) (2011) guidelines) has been used to determine the methodology applied to assessment of the cultural heritage resource.

In order to determine level of impact, assessment was achieved by a consideration of the duration, quality, type, magnitude and value of effect(s) on the cultural heritage resource.

The duration of effects is assessed based on the following criteria:

- Momentary (seconds to minutes)
- Brief <1 day
- Temporary <1 year
- Short-term 1-7 years
- Medium term 7-15 years
- Long term 15-60 years
- Permanent >60 years
- Reversible: Effects that can be undone, for example through remediation or restoration

The quality of an effect on the cultural heritage resource can be positive, neutral or negative.

- Positive – a change which improves the quality of the cultural heritage environment (e.g. increasing amenity value of a site in terms of managed access, signage, presentation etc. or high-quality conservation/restoration and re-use of an otherwise vulnerable derelict structure).
- Neutral – no change or effects that are imperceptible, within the normal bounds of variation for the cultural heritage environment.
- Negative – a change which reduces the quality of the cultural heritage resource (e.g. visual intrusion on the setting of an asset, physical intrusion on features/setting of a site etc.)

The type of effect on the cultural heritage resource can be direct, indirect or no predicted impact.

- Direct – where a cultural heritage receptor is physically located within or in close proximity to the footprint of the project, which will result in its complete/partial removal, and/or complete/partial change to its setting.
- Indirect – where a cultural heritage receptor and its setting, is located in close proximity to the footprint of the Development and will have measurable impact, which is not a direct result of the project.
- No predicted effect – where the project will not adversely or positively affect a cultural heritage receptor.

The evaluation of the Value of a heritage asset is largely based on its significance criteria, and should not be considered definitive, but rather an indicator which contributes to a wider judgment based on the individual

circumstances of each feature. Generally, the more criteria that are evident for a given asset, the higher in scale its respective value will be. Criteria to be considered in addition to any legal designations include a consideration of the condition/preservation, documentary/historical significance, group value, rarity, visibility in the landscape, fragility/vulnerability and amenity value.

The Value of all known or potential assets that may be affected by the Development should be ranked according to the following scale: High, Medium, Low and Negligible and Unknown potential. The table below has been informed by the ICOMOS *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties, 2011.*

Factors for assessing the Value of the Cultural Heritage Asset	
High	• Scheduled Monuments (including proposed sites) and including standing built remains • Undesignated assets of schedulable quality and importance • Assets that can contribute significantly to acknowledged national research objectives • Grade A and Grade B+ Listed Buildings • Other listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade • Conservation Areas containing very important buildings • Undesignated structures of clear national importance
Medium	• Designated or undesignated assets that contribute to regional research objectives • Grade B1 or B2 Listed Buildings • Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations • Conservation Areas containing buildings that contribute significantly to its historic character • Historic townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Low	• Designated and undesignated assets of local importance • Assets compromised by poor preservation and/or poor survival of contextual associations • Assets of limited value, but with potential to contribute to local research objectives • Record-only listed buildings • Historic (unlisted) buildings of modest quality in their fabric or historical association • Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Negligible	• Assets with very little or no surviving archaeological interest • Buildings of no architectural or historical note; buildings of an intrusive character
Unknown	• The importance of the resource has not been ascertained • Buildings with some hidden (i.e. inaccessible) potential for historic significance

Magnitude of Impact (degree of change, incorporating any mitigation measures) can be negative or positive, and should be ranked without regard to the value of the asset. The following scale for Magnitude of Impact should be utilised: **High; Medium; Low; Negligible or No Change.**

Factors in the Assessment of Magnitude of Impacts on the Cultural Heritage Asset	
High	• Change to most or all key archaeological materials, or key historic building elements, such that the resource is totally altered • Comprehensive changes to setting
Medium	• Changes to many key archaeological materials, or key historic building elements, such that the resource is clearly/significantly modified • Considerable changes to setting that affect the character of the asset, or significant modification of the setting of an historic building
Low	• Changes to key archaeological materials, or key historic building elements, such that the asset is slightly altered or slightly different • Slight changes to setting of an archaeological asset • Change to setting of a historic building, such that it is noticeably changed
Negligible	• Very minor changes to archaeological materials, or setting • Slight changes to historic buildings elements or setting that hardly affect it

The Significance of the effect is based on an assessment of the impact (character, magnitude, duration, probability and consequences) and the value (significance/sensitivity) of the heritage asset. The **Significance of Effect** can be described as **Profound, Very Significant, Significant, Moderate, Slight, Not Significant or Imperceptible**.

Significance of Effects Matrix *(per EPA Draft Guidelines 2017)*							
Magnitude of Impact	**High**	Not Significant/ Slight	Slight/ Moderate	Moderate/ Significant	Very Significant	Very Significant/ Profound	Profound
	Medium	Not Significant	Slight	Moderate	Moderate/ Significant	Significant/ Very Significant	Very Significant/ Profound
	Low	Not Significant/ Imperceptible	Not Significant/ Slight	Slight	Slight/ Moderate	Moderate/ Significant	Significant/ Very Significant
	Negligible	Imperceptible	Imperceptible	Not Significant	Not Significant	Not Significant/ Slight	Not Significant/ Slight
		Negligible	**Low**	**Medium**	**High**	**Very High**	**Extremely High**
		Value/Sensitivity of the Heritage Asset					

6.3 Baseline Environment

6.3.1 Existing Environment

The landscape within the study area generally varies from areas of improved pasture and rough grazing to several areas of marginal upland bog. Two significant river networks traverse the study area, namely the Owenkillew River and the Glenelly River. Areas adjacent to these river networks retain more fertile river valley terrain with good pastureland. This riverine environment would have been attractive to early settlers since prehistoric times, providing good food and transport resources, and although marshy and wet in places, this type of natural environment is also conducive to sites Bronze Age cooking sites such as *fulachta fiadh*/ burnt mound.

6.3.2 Recorded Cultural Heritage

The wider landscape contains a moderate to high number of cultural heritage sites including known/recorded archaeological monuments (SMR sites), listed buildings and industrial heritage sites. Cultural heritage sites recorded within the wider vicinity of the Proposed Development date from the prehistoric period through to the post-medieval period. Within the 200m wide corridor centred on the proposed overhead 33kV line, which forms the study area, there are five Industrial Heritage Record (IHR) sites. Furthermore, there are three SMR sites that are also designated as Scheduled Monuments that are located within 500m of the Proposed Development.

6.3.2.1 Archaeological Sites

There is no recorded archaeological monument listed in the Sites and Monuments Record (SMR) within the 200m assessment corridor centred on the Proposed Development. Within the *circa 1*km Proposed Development study corridor there are three (3 no.) SMRs that are designated as scheduled monuments, including an Early Christian site, and a number of stone circles and a stone alignment (see Volume II Figure 6.2 and Table 6.1 below). These site types are broadly indicative of the archaeological sites recorded within the wider environment (*circa 1*km) study area.

Table 6.1: SMR Scheduled Monument sites within approximately 500m (circa 1km wide study corridor) of the centre-line of the distribution 33kV power line

SMR No.	Townland	X Co-ord	Y Co-ord	Description	Period
TYR011:017	Ballykeery	244922	395399	Killeen	Early Christian
TYR018:056	Culvacullion	249285	389327	Stone circle	Prehistoric
TYR018:008	Culvacullion	249491	388930	Stone circle complex	Prehistoric

6.3.2.2 Industrial Heritage Sites

There is a total of five Industrial Heritage Record (IHR) sites within the 200m Proposed Development assessment corridor; these include four (4 no.) bridges and also abutments relating to a wooden bridge (see Volume II Figure 6.2 and Table 6.2 below). Three (3 no.) sites directly located within areas where underground cabling is proposed. The underground cabling will be set within the road carriageway (see Section 6.5 Mitigation).

Table 6.2: IHR sites within approximately 100m (200m assessment corridor) of the centre-line of the distribution 33kV power line

IHR No.	Townland	X Co-ord	Y Co-ord	Description
04409:000:00*	Garvagh / Meenadoo	252648	387069	Bridge
04463:000:00	Crockanboy/Teebane West	258310	383370	Bridge
04410:000:00	Garvagh	253129	387027	Abutments of Wooden Bridge
04461:000:00*	Teebane West	256662	383877	Bridge
04462:000:00*	Teebane West	257800	383499	Bridge

**located on proposed cable route*

6.3.2.3 Listed Buildings

There are no Listed Buildings located within the 200m Proposed Development assessment corridor (see 6.2). There are five Listed Building (HB11/17/002, HB11/17/001, HB11/17/006, HB/10/04/060, HB/10/04/061) located within the *circa 1*km buffer of the Proposed Development. Site survey and assessment has established that, due to mature tree planting, well vegetated boundaries and intervening buildings and topographical changes between these sites and the Proposed Development, no significant effects are predicted as a consequence of the Proposed Development.

In addition, there are no Historic Parks, Gardens and Demesnes located within the 200m Proposed Development assessment corridor. The nearest Historic Parks, Gardens and Demesnes site (Holyhill) is located c400m from the underground section of the Proposed Development. There are no Defence Heritage sites located within 200m of the proposed alignment. The nearest Defence Heritage site (Observation post at Cathern) is located c2km from the Proposed Development. There are no Battle sites located within 200m of the proposed alignment. The nearest Battle site (Battle of the Fords – Northern Crossing) is located c2.6km from the Proposed Development. There are no Areas of Significant Archaeological Interest (ASAI) located within 200m of the proposed alignment. The nearest ASAI site (Beaghmore) is located c5km from the Proposed Development. There are no UNESCO World Heritage Sites (Cultural) located within 200m of the proposed alignment. The nearest UNESCO World Heritage Sites (Cultural) (Brú na Bóinne) is located c118km from the Proposed Development.

6.3.2.4 Previous Archaeological Excavations

A review of the Excavations database (1970 – 2021) (www.excavations.ie) of the townlands of Woodend, Ballee, Holly-hill, Keenaghan, Owenreagh, Knockanbrack, Lagavittal, Knockinarver, Lagavadder, Craignagapple, Ballykeery, Craigatuke, Meendamph, Balix Upper, Letterbrat, Glencoppogagh, Aghalan, Lisnacreaght, Culvacullion, Trinamadan, Meenadoo, Garvagh, Drumlea, Rousky, Casorna and Teebane West, which comprise the townlands traversed by the proposed overhead line has shown that a small number of archaeological excavations have taken place. These excavations are summarised as follows:

6.3.2.4.1 Licence No. AE/16/147

A programme of monitoring was undertaken on the site at Woodend, Strabane, County Tyrone between 18 and 29 October 2016. Numerous modern features including frequent occurrences of drainage features and cultivation furrows; several natural features and evidence for modern field clearance were encountered. One pit of potential archaeological significance was identified during this archaeological excavation. This feature was investigated and was preserved *in situ*.

6.3.2.4.2 Licence No. AE/08/1

No features/deposits or finds of archaeological significance were revealed during the course of monitoring (January–March 2008) at a wind farm development at Owenreagh Hill, Craignagapple, Strabane, Co. Tyrone.

6.3.2.5 Historic Cartographic Review

A review of the 1st Edition OS map (surveyed *circa* 1830) for this area shows that much of the landscape across the scheme consisted of unenclosed land, particularly at the central area. No additional potential archaeological features were observed along the Proposed Development on the 1st or 2nd edition OS historic maps.

6.3.2.6 Placename Review

Townlands are the smallest unit of land division in the Irish landscape and many may preserve early Gaelic territorial boundaries that pre-date the Anglo-Norman conquest. The layout and nomenclature of the Irish townlands was recorded and standardised by the work of the Ordnance Survey in the 19th century. The Irish translations of townland names often refer to natural topographical features, but some name elements may also give an indication of the presence of past human activity within an area, including the presence of unrecorded archaeological sites. The following translations were taken from the Placenames NI website (www.placenamesni.org). Where more than one translation was provided, the translation of John O'Donovan was chosen.

Many of the townlands traversed by the Proposed Development refer to topographical features, or features associated with flora and fauna. Few of the townlands may imply archaeological material within the townland, such as Lisnacreaght ('Fort of the screeching'), suggesting the former existence of a fort and Knockinarver ('hill of the great man'), which might suggest a burial site. No evidence for any such features was identified during desk based and field survey associated with the Proposed Development.

Table 6.3: Placename translations

Townland name	Gaelic origin	Translation
Woodend	-	-
Ballee	*Baile Aodha*	'Hugh's town'
Holly-hill	-	-
Keenaghan	*Caonachán*	'mossy land'
Owenreagh	*Abhainn ruadh*	'red river'
Knockanbrack	*Cnocán Breac*	'speckled hill'
Lagavittal	*Lag a mhiotail*	'hollow of the mettle'
Knockinarver	*Cnoc an fhir mhóir*	'hill of the great man'
Lagavadder	*Lag a mheadair*	'hollow of the mether' (a mether is a medieval communal drinking cup)
Craignagapple	*Creag na gCapall*	'rock of the horses'
Ballykeery	*baile caerthainn*	'town of the rowan tree'
Craigatuke	*Creag a tseabhaic*	'the hawk's rock'
Meendamph	*Míne Daimh*	'field of the ox'
Balix Upper	-	-
Letterbrat	*Litir brat*	'hill of the cloaks'
Glencoppogagh	*Gleann copógach*	'valley of the dock leaves'
Aghalan	*Achadh Leathan*	'broad field'
Lisnacreaght	*Lios na sgréach*	'fort of the screeching'
Culvacullion	*Cúl mhaighe cuillinn*	'back of the holly plain'
Trinamadan	*Trian amadain*	'the fool's third'
Meenadoo	*Míne dubh*	'black field'
Garvagh	*Garbh-achadh*	'rough field'
Drumlea	*Droim Léith*	'grey ridge'

Townland name	Gaelic origin	Translation
Rousky	*Rusgaidh*	'marsh or moor'
Casorna	*Cuas eorna*	'cave of the barley field'
Teebane West	*An Taobh Bán*	'the white hillside'

6.3.3 Field Survey

A field inspection survey of the Proposed Development was undertaken in March, May and August 2018, in October 2019 and in April 2021 by qualified and experienced archaeologists from John Cronin & Associates. Weather conditions were good, with good landscape visibility. The proposed alignment throughout the study area has varying degrees of archaeological potential, all of which is assessed below. A representative selection of survey photos is presented in Volume III Appendix 6.1, which is indicative of the overall landscape and terrain of the study area.

The landscape within the study area generally varies from areas of improved pasture and rough grazing to several areas of marginal upland bog. From Strabane, south-east towards to Plumbridge, the landscape consists of improved pasture at the eastern outskirts along the Foyle river basin at the urban centre of Strabane, which then gives way to primarily upland boggy terrain before falling again towards the lowlands associated with the Glenelly River that runs through Plumbridge. This upland terrain has a low quantity of recorded Cultural Heritage sites and overall has low to moderate archaeological potential.

At the southern half of the alignment between Plumbridge and Rousky there are two significant river networks traversing the study area, namely the Owenkillew River and the Glenelly River. Areas adjacent to these river networks retain fertile river valley terrain with good pastureland. This riverine environment would have been attractive to early settlers since prehistoric times and would have formed important food and transport networks. There is a moderate to high number of Sites and Monuments Record (SMR) sites in this area, with the highest density located in and around these river valleys, and overall it has a moderate to high archaeological potential to contain hitherto unrecorded archaeological sites.

At the southern area of the alignment between Plumbridge and the termination point at the mine site, a number of large boulders, likely to be glacial erratics were encountered close to the distribution powerline. A number of field clearance cairns (including some that have been constructed in the past year) were noted in the townland of Rousky, close to the location of pole-sets 2290 – 2292 (see Volume III, Appendix 6.1, Plate 6.15). A full archaeological survey (including drone survey and visual inspection) was carried out by experienced archaeologists. It was clear that some of these were of recent construction (digger tracks were visible on the ground surface at some locations), this proved that these features are not archaeological in origin.

An undulation/mound was noted approximately 115m to the north of pole-set 2292 in the townland of Rousky at 255049/ 386146 Irish Grid (see Volume II Figure 6.3). This feature is sub-oval in plan, orientated east/west on its long axis. It measures approximately 20m in length east to west, 11m in width north to south and is 3m in height above the surrounding ground level (see Volume III, Appendix 6.1, Plates 6.16 and 6.18). It is located on the summit of a ridge and is prominent above the ground level immediately surrounding it. Field survey by two fully qualified and experienced archaeologists (including GPS survey and drone survey) could not determine if this feature is archaeological in origin. The nature of this feature may only be determined by a programme of additional archaeological investigation works, which was outside the scope of this assessment. Also, this potential feature is located outside the 200m assessment corridor. The undulating nature of the field in which this feature is located means that it is invisible from many close-by locations, being screened by the natural topography. In addition, views from the feature towards the proposed line show the existing overhead line (OHL) within the same field (see Volume III, Appendix 6.1, Plate 6.17). This feature is noteworthy, but in the absence of further (potentially intrusive) archaeological investigation it cannot be verified as archaeological.

During field survey, a stone arrangement and small stone cairn was observed in the townland of Trinamadan, close to the boundary with Culvacullion at approximately 249940/389238 Irish Grid. The stone arrangement consisting of two parallel lines of stones (with a slight curve) orientated on an east/west alignment (see Volume

III, Appendix 6.1, Plates 6.19 and 6.20). The stones are low, protruding less than 1m from the ground surface and often difficult to spot when the heather is in full growth. The stone arrangement is located in bogland, with some evidence of peat cutting, at approximately 260mOD on the southern slope of Slievemore (see Volume II Figures 6.4 and 6.5).

The site is located approximately 0.5km northeast of Stone Circle Complexes and Stone Alignments TYR018:008 (Scheduled); 0.6km east of Stone Circle TYR018:056 (Scheduled) and 0.45km east-northeast of Standing Stone SMR site TYR018:050 (see Volume III, Appendix 6.1, Plate 6.21).

The low height of the stones at this location is typical of the mid-Ulster stone circles and stone alignments, and the potential site may be an example of same, given both its form, extent and its close proximity to the adjacent stone circles and alignments to the west which form part of a wider Bronze Age landscape (see Volume III, Appendix 6.1, Plates 6.29 – 6.39). A further detailed description is provided in Volume III Appendix 6.2.

6.4 Impact Assessment

6.4.1 Impacts on Existing Environment

A desktop survey coupled with field inspection of the proposed scheme was undertaken in order to identify all known and protected cultural heritage sites in the vicinity/area of the Proposed Development, as well as to identify any possible previously unrecorded sites and to ensure that any such sites which may be impacted are afforded appropriate mitigation measures.

6.4.1.1 Direct impacts

There are three Industrial Heritage bridges located directly on the proposed distribution 33kV cable route (see Volume II Figures 6.7 and 6.8). The underground cable will be set within the roadbed at these locations and is not predicted to affect the bridge structures. As such, these direct impacts on bridge sites IHR 04409:000:00; IHR 04461:000:00 and IHR 04462:000:00 are considered **low value with low magnitude of impact; thereby having a 'not significant' significance of effect**.

6.4.1.2 Indirect impacts

There are no Listed Buildings or Historic Parks, Gardens and Demesnes located within the 200m Proposed Development assessment corridor. Site survey and assessment has established that, due to mature tree planting, well vegetated boundaries and intervening buildings and topographical changes between these sites and the Proposed Development, no significant effects are predicted as a consequence of the Proposed Development.

At approximately 5km northwest of Plumbridge there is a Scheduled Monument (TYR011:017), a Killeen (burial ground), in the townland of Ballykeery. The site, and extant raised area, is located c340m west of the proposed distribution 33kV overhead powerline (see Volume II Figure 6.6). This site is surrounded by higher ground save towards the east where it overlooks the Ballykeery Burn. Views from this site towards the overhead line (OHL) are interrupted by the public road and sporadically by the natural topography, modern housing, field boundaries, trees, etc.

This feature is first depicted on the 3rd edition of the Ordnance Survey, dated to c1900, which suggests that it is a relatively recent addition to the landscape. Unlike some of the prehistoric sites within this landscape, this type of site would not have been deliberately positioned to have inter-visibility with other archaeological sites or with reference natural topographic features within the landscape. Views towards and from this site were not an important consideration in its location, and as such its setting is quite localised. However, it is considered that there is a potential indirect negative visual impact on site TYR011:017, which is of **high value** with **negligible magnitude of impact,** generating a '**Not Significant**' **significance of effect.**

At Culvacullion townland, two scheduled sites: TYR018:056 stone circle and TYR018:008 stone circles (4 no.) and a stone row alignment, are located c408m and c568m respectively; west of the proposed distribution 33kV OHL (see Volume II Figure 6.5). In addition, it should be noted that a further SMR site, TYR018:050, three standing stones (possibly the remains of a megalith), is located in this area, approximately 400m west of the overhead line. These sites command extensive views across sections of the landscape. As such, there is likely indirect impact on the site(s) including their grouping value, in terms of visual impact of the proposed 33kV OHL to the east.

However, the sites are situated at sufficient distance from the OHL so that the visual impact is not considered significant. It is considered that these indirect impacts on each of the sites TYR018:056, TYR018:008 and TYR018:050, and their collective grouping value, are considered to be of **high value** with **low magnitude of impact,** thereby having a **'Slight/Moderate' significance of effect** (see **Impacts during Operational Phase** below for further assessment).

Another Industrial Heritage Bridge site IHR 04463:000:00 is located south of the proposed cable route where it extends northwards through a greenfield area, from the local road network, near its terminal point at Crockanboy/Teebane West. This site is considered **low value with negligible magnitude of impact, thereby having an imperceptible significance of effect**. In addition, there are abutments associated with a wooden bridge at Garvagh IHR 04410:000:00, located 65m north of the proposed OHL; however, it will not be directly affected. As such **this indirect impact (close proximity) is considered of low value with negligible magnitude of impact, thereby having an imperceptible significance of effect.**

As noted in Section 6.3 Baseline Conditions above, a site (stone arrangement) was observed at approximately 249940/389238 Irish Grid in the townland of Trinamadan. The site is located between two pole-sets (2224 & 2225). Pole-set 2225 is closest to the site, located 40.8m east-northeast of stone 10, while the line itself will be located 17m north of the nearest stone, stone 1 (Volume II Figure 6.9). Pole-set 2224 is located 55.5m northwest of stone 1. The overhead line will not have a direct physical impact on the identified elements of the site, however it will have an indirect impact on the respective context and setting of the site within the landscape. As such, also taking due cognisance of its potential grouping value with scheduled sites TYR018:056 and TYR018:008; and SMR site TYR018:050; **this indirect impact on the potential site is considered low value with medium magnitude of impact, thereby having a potential moderate significance of effect**. (see **Impacts during Operational Phase** below for further assessment).

The undulation/mound was noted approximately 115m to the north of pole-set 2292 in the townland of Rousky at approximately 255049, 386146 Irish Grid (IG) (see Volume II Figure 6.3). The site will be not be directly affected by the proposed distribution 33kV OHL, however should the site be archaeological in origin, there is potential to reveal associated sub-surface features that may exist along the proposed pole-set locations adjacent to same; and, in addition, there is a potential low indirect (visual) impact on the potential site. As such, **this indirect impact on the potential site is considered of potential low value with low magnitude of impact thereby having potential 'not significant' significance of effect**.

Table 6.4: Impact Assessment & Significance of Effect on the Existing Environment (Cultural Heritage)

Heritage Asset	Value of Asset	Magnitude of Impact	Significance of Effect (Indirect Impact)
TYR011:017	High	Low	Slight/Moderate
TYR018:056	High	Low	Slight/Moderate
TYR018:008	High	Low	Slight/Moderate
TYR018:050	Medium/High	Low	Slight
IHR 04409:000:00	Low	Low	Not Significant/Slight
IHR 04463:000:00	Low	Negligible	Imperceptible
IHR 04410:000:00	Low	Negligible	Imperceptible
IHR 04461:000:00	Low	Low	Not Significant/Slight
IHR 04462:000:00	Low	Low	Not Significant/Slight
Stone arrangement	Potential Medium	Potential Medium	Potential Moderate

Heritage Asset	Value of Asset	Magnitude of Impact	Significance of Effect (Indirect Impact)
Possible mound	Potential Low	Potential Low	Potential Not Significant/Slight

6.4.2 Impacts during Construction Phase

The impacts on the existing environment identified above will be relative to the works associated with the Construction Phase. The construction phase will involve limited, targeted ground excavation for purposes of erecting wooden pole-sets, with ground reinstatement therein. The proposed planning corridor is 80m in width (40m either side of the line), however at certain locations a narrower or restricted working corridor to facilitate vehicular movements and temporary spoil storage may be used (see Section 6.5 below). The proposed underground cabling will involve a continuous 500mm wide trench at 1m depth. Ground excavation has the potential to impact on previously unrecorded archaeological finds, features or deposits that may exist at a sub-surface level and be uncovered during topsoil stripping operations. Impacts on the recorded and unrecorded resource have been identified as negative and indirect, of low levels of magnitude and varying levels of significance of effect.

The wider upland landscape has a high number of recorded archaeological prehistoric sites, particularly near upland areas that are adjacent nearby river networks, as well as within the riverine valleys extending from Plumbridge towards the southeast and the infrastructural mine site. These locations do have potential to reveal hitherto unknown archaeological sites. Potential impact on hitherto unknown archaeological features located within the footprint of the proposed scheme (specifically pole-set locations and proposed underground cabling routes within greenfield areas) is **considered potential negative direct impact of low/medium value with high magnitude of impact, thereby having a potential slight/moderate significance of effect**.

6.4.3 Impacts during Operational Phase

Following construction phase, there will be **no identified direct impacts** on the Cultural Heritage resource during operational phase of the Proposed Development.

The **indirect impacts of a visual nature** identified on both scheduled archaeological sites and two other potential archaeological sites identified during field survey during construction stage are also applicable to the operational phase of the Proposed Development and will be of a long-term duration (reversible). The significance of these effects during operational phase are presented in Table 6.4 above and will be discussed further below.

6.4.3.1 Impact on setting

The Department for Communities document '*Guidance on Setting and the Historic Environment'* provides a three-stage approach in considering the impact of a Proposed Development on a heritage asset as follows:

> ***Stage 1:*** *identify the heritage assets that might be affected.*
>
> ***Stage 2:*** *define the setting by establishing how the surroundings contribute to the significance of the heritage assets in the ways they are understood, appreciated and experienced.*
>
> ***Stage 3:*** *assess how any changes would impact upon that setting.*

These criteria will be used to describe the potential impact on the setting of the newly discovered stone arrangement, as well as the nearby Scheduled Monuments. The setting of the stone arrangement and the nearby Scheduled Monuments are reviewed in relation to its Physical, Visual and Functional setting.

6.4.3.1.1 Physical setting

A stone arrangement, consisting of two parallel lines of stones (with a slight curve) was identified in the townland of Trinamadan, close to the boundary with Culvacullion, County Tyrone. Its physical setting is located in bogland, with some evidence of peat cutting, at approximately 260mOD on the southern slope of Slievemore. The immediate landscape retains a remote and unimproved character within the South Sperrin Landscape Character

Area. The proposed **Overhead Line (OHL) will not directly impact on the physical location of the Scheduled Monuments: stone circle TYR018:056 and stone circle complex TYR018:008 or the stone arrangement.**

6.4.3.1.2 Visual Setting (Assessment of Visual Impact)

The introduction of new elements to a landscape can alter views and, in some instances, have a negative impact on the landscape and features within the landscape and/or their settings. The site of the newly discovered stone arrangement was visited in October 2019 and in April 2021, as were the locations of stone circle TYR018:056 and stone circle complex TYR018:008 to assess potential visual effects. Photomontage images were produced from three viewpoints (Volume II) to help assess potential visual effect of the proposed OHL may have on these features. These photomontage images formed the basis of discussions with HED regarding potential visual impacts and measures to lower the potential impact on the Scheduled Monuments. It was agreed that a short section of the overhead line (poles 2216 – 2228) could be moved to the southwest (within the planning corridor). This would bring the overhead line closer to the Scheduled Monuments but will lower their elevation and consequently reduce the amount of the overhead line that breaks the skyline over Slievemore hill and thus reducing the overall visual impact on the Scheduled Monuments. Photomontages showing this section of line were amended accordingly and these Cultural Heritage Viewpoints (VP) are discussed below.

The newly discovered stone arrangement has extensive vistas to the south towards the Owenkillew River valley and Mullaghcarn and Curraghchosaly Mountains, and particularly to the west across West Tyrone, as far as the Bluestack Mountains, County Donegal (see Volume III, Appendix 6.1, Plates 6.19 and 6.20). The general locations of TYR018:056 and TYR018:008 are visible from the stone arrangement, although the architecture of these monuments is not visible.

Cultural Heritage Viewpoint 1 (VP1) was taken from the newly discovered stone arrangement, facing west-northwest across the landscape, focusing on the location of stone circle TYR018:056, with part of the location stone circle complex TYR018:008 also visible at the left extremity of the image. The angle of Cultural Heritage VP1 is designed to include the OHL for assessment purposes. This means that it is not focused directly to the west in correspondence with the orientation of the stone arrangement. Views directly west from this location would not include a view of the OHL. Cultural Heritage VP1 shows some of the elements of the OHL visible on the skyline at the righthand extremity of the image.

Cultural Heritage Viewpoint 2 (VP2) was taken from stone circle complex TYR018:008 facing northeast towards the location of the newly discovered stone arrangement. There is clear inter-visibility with the location but not the architecture of the stone arrangement and Slievemore. The OHL is visible in the distance, running along the slope of Slievemore. Some poles are visible on the skyline in the distance at either side of Slievemore, while those along the slope of Slievemore are almost imperceptible against the brown and burnt umber peaty upland background. Part of the OHL is screened by natural topography at the left-hand extremity of the image and by a forestry plantation at the right-hand extremity of the image. The nearby stone circle site TYR018:056 is not visible from this location due to the undulating natural topography.

Cultural Heritage Viewpoint 3 (VP3) was taken from stone circle TYR018:056 facing east-northeast towards the location of the newly discovered stone arrangement and Slievemore. There is clear inter-visibility with the location but not the architecture of the stone arrangement. The OHL is visible in the distance, running along the slope of Slievemore. Some poles are visible on the skyline on the left-hand and right-hand sides of the image, while some are almost imperceptible against the brown and burnt umber peaty upland backdrop of Slievemore. The nearby stone circle complex TYR018:008 is not visible from this location.

6.4.3.1.3 Assessment of Visual Impact

Stone arrangement

The newly discovered stone arrangement is situated in an area of cut-away peat bog, on land sloping to the south on the lower southern slope of Slievemore hill. The most extensive views are towards the west and south, somewhat more limited to the east and localised to the north due to local topography. The poles associated with the OHL will not physically impact on this site, however they will be located in close proximity (within 100m) to it and therefore have an impact on its setting (see impact assessment above). Views to the east and northwest will be impacted by the introduction of the OHL, however, the primary views from this site are towards the west and

south and these will remain unaffected. Also, there will be no impact on views from this site towards the Scheduled Monuments (TYR018:008 & TYR018:056) or SMR site (TYR018:050).

Scheduled Monument TYR018:008

The Scheduled area associated with this monument is located within peatland sloping towards the south. There are clear views towards Slievemore and the stone arrangement to the northeast. A rise in the local topography to the north and northwest means that there are no views towards Scheduled Monument TYR018:056 or Standing Stone TYR018:050. The primary views from this site are towards the south and west, focussed on the valley of the Owenkillew River and the landscape beyond.

Scheduled Monument TYR018:056

The Scheduled area associated with this monument is located within a flat area of peatland. There are clear views towards Slievemore and the stone arrangement to the east. A rise in the local topography to the south and west means that there are no views towards Scheduled Monument TYR018:018 or Standing Stone TYR018:050. The most extensive views are to the north, where the peaks of mountains to the north of Plumbridge are visible.

The general locations but not the architectural details of TYR018:056 and TYR018:008 and standing stone SMR site TYR018:050 are visible from the stone arrangement site, as are a vast number of other features - both natural and anthropogenic – within the wider landscape. To view the architecture of these monuments (and indeed the rituals that potentially took place within them) one would have had to be within very close proximity to the sites (this is explored further below).

In plan (see Volume II Figure 6.9), the stone arrangement has the appearance of two parallel lines of stones aligned on an east/west orientation, focusing views towards the west. This is consistent with the best range of vision from this site, suggesting that whatever interactions this site had with the landscape in the past was with features directly to the west, the most prominent of which is the Bluestack Mountains, viewed along the horizon almost 50km distant.

This westward alignment looks through the interstice between the two Scheduled Monuments: Stone circle TYR018:056 and Stone circle complex TYR018:008. This suggests that although these monuments are within the visual spectrum looking west, the purpose of the stone arrangement was not to focus views directly to these sites. This may suggest that although there is inter-visibility between the stone arrangement and the two Scheduled sites, these sites did not interact in a direct way in the past.

The OHL will not impact on intervening views between the stone alignment site and the Scheduled sites, nor to the expansive views to the south. Moreover, the key view from the site towards the west will remain uninterrupted. However, the OHL will be located in relatively close proximity (within 100m) to the stone alignment and will be clearly visible from it when facing northwest and east. This will have an impact on the visual setting of the stone arrangement (previously unrecorded site). Taking all of these factors into consideration, the Significance of effect on the stone alignment is considered to be **Potential Moderate**.

The photomontages show that the OHL will be visible in the distance from both Scheduled Monuments: Stone circle TYR018:056 and Stone circle complex TYR018:008. The amended alignment of the section of OHL along Slievemore has aided in making it less conspicuous in the landscape. However there is likelihood for an indirect impact of low magnitude on the Scheduled Monuments (high value assets) leading to a **Slight/Moderate** Significance of effect.

6.4.3.1.4 Functional setting

In terms of the functional setting of the newly discovered stone arrangement, the small scale of the overall architecture of the site, as well as the constituent elements (individual stones and stone cairn) (see Volume III Appendix 6.2 for details), along with the relatively low profile of the location (on the slope rather than the summit of Slievemore) may suggest that prominence within the landscape was not an important factor in its siting. There are clear views from the stone arrangement towards the locations of Scheduled Monuments TYR018:056 and TYR018:008 and Standing Stone TYR018:050 to the west (i.e. away from the OHL). The primary views are to the south towards the Owenkillew River valley and Mullaghcarn and Curraghchosaly Mountains and particularly to the west across West Tyrone, as far as the Bluestack Mountains, County Donegal. The stones are aligned with

direct reference to the Bluestack Mountains. The functional setting of the stone arrangement appears to be with reference to monuments and prominent natural topographic features in the landscape to the west and south and thus would not be impacted by the Proposed Development.

Stone circle TYR018:056 is located on a flat area/slight hollow at approximately 220mOD with clear views towards the stone arrangement and Slievemore hill, with the most extensive views towards the north. There are no direct views towards the coeval Scheduled Monument TYR018:018 or Standing Stone TYR018:050. Although there is no intervisibility between the two Scheduled Monuments, they are contemporaneous and share the landscape, therefore their functional settings must have been connected. Intervisibility was not an aspect of their functional setting and it is clear from field survey that primary views form the two sites were focussed towards different elements in the natural landscape. Views northeast from Scheduled Monument TYR018:056 towards the stone alignment will include the OHL (see photomontages in Volume 2), though the impacts are considered to be Slight/Moderate significance of effect (see Table 6.4 for assessment of impacts).

Stone circle complex TYR018:008 Is located on a south-facing slope at approximately 200mOD with extensive views to the south and west and well as a clear view towards the location of the stone arrangement to the northeast. Views from this monument suggest a direct association with the valley of the Owenkillew River to the south and west.

Although the location of these two monuments are visible from the stone arrangement these are viewed in the distance and are not considered directly associated. In addition, field inspection proved that there is no inter-visibility between Stone circle TYR018:056 and Stone circle complex TYR018:008, as views are screened by natural topography. Therefore, although analogous in terms of date and type, these two sites do not have a direct visual association. This would further suggest that the ritual activity associated with these sites was focused within the circles (and stone arrangement) themselves and their immediate vicinity.

6.4.4 Cumulative impacts

Cumulative impacts may occur when a proposed development is assessed in combination with other developments that may result in a collective impact that is significant. The EPA (2017) Guidelines describe Cumulative Effects as follows: 'The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects'. Cumulative impacts can be direct impacts on physical cultural heritage features or indirect impacts of a visual nature on the setting of cultural heritage features.

In the case of the proposed Development, potential cumulative impacts are likely to be of a visual nature and as such the Cultural Heritage chapter has chosen to assess the cumulative impact in relation to developments that have the potential to give rise to significant visual impacts, with a particular focus on potential impacts on Scheduled Monuments. For this reason, all wind farm related projects & electrical connections with approximately 5km (10km buffer) of the Proposed Development have been assessed. There are a total of six wind farm related developments and three overhead line and electrical connections with approximately 5km of the Proposed Development (listed in Table 6.5).

Only two of these developments (LA10/2020/0512/F and LA10/2018/0673/F) are located within the 1km buffer of the proposed distribution 33kV line and these are located approximately 7.4km and 7.8km southeast respectively of the closest Scheduled Monument (TYR018:008) within the study area for the Proposed Development.

One development, (LA10/2016/0710/F), located approximately 1.9km south-southwest of poleset 2229 is located approximately 1.6km south of Scheduled Monument TYR018:008 and 2km south of TYR018:056. Although this development will be potentially visible from these Scheduled Monuments, it is located in an almost diametrically opposite location to the sections of the Proposed Development located within close proximity to the Scheduled Monuments. For this reason, there are no cumulative impacts on the setting of the Scheduled Monuments.

Table 6.5: Developments Assessed for Cumulative Impact (Cultural Heritage)

Planning Reference Number	Location	Description	Approximate distance from Proposed Development
LA11/2015/0251/f	Lands 540m North east of 5 Ballylaw Road Artigarvan	Erection of single wind turbine- 30m hub height with 33.1m diameter blades, associated access and 2no electricity cabinets.	4368m

LA11/2016/0721/F	Approximately 490 Metres South East of No.63 Curlyhill Road Strabane	Proposed 225kW wind turbine comprising of a V27 model with a 30M hub height and a 27M rotor diameter	1307m
LA11/2018/0165/F	63 Curlyhill Road Strabane BT8 7YR	A 250KW wind turbine with mast height of 30m and a 30m diameter rotor at IGR E236800 N397910	1203m
LA10/2020/0512/F	791m NE of 128 Crockanboy Road Casorna Townland Rousky Omagh	Proposed retention of operational Vestas V52 wind turbine (60m hub height; 52m blade diameter 86m blade tip height) existing new access track and hardstand area electrical kiosk and storage kiosk (as constructed) with re-location off the Green Road as	226m
LA10/2018/0673/F	Site 1000m east of 134 Crockanboy Road Omagh	Proposed erection of a 50m hub height V52 Vesta with a max output of 225KW to replace wind turbine approval K/2012/0170/F	446m
LA10/2016/0710/F	230m NE of 47 Culvacullion Road Gortin	Substitution of existing wind turbine approved in application number K/2010/0394/F from 225kw on 30m tower to 250kw turbine on 50m tower (from ground level to hub)	1979m
LA11/2017/0885/F	Approx. 125 M. South West of 12 Laurel Road Coolermoney Artigarvan Tyrone to Approx. 136 M. South West of 14 Ballylaw Road Ballylaw Artigarvan Tyrone and Approx. 382 M. North East of 7 Ballylaw Road Ballylaw Artigarvan Tyrone to Approx. 450 M. North of 118 Berryhill Road Ballylaw Dunnamanagh Tyrone	Erection of 11,000 volt overhead electricity line in two stages to facilitate a 250KW wind turbine. The overhead electricity line is to be of wooded pole construction and 12 poles are to range in size from 10.M to 13.0M in height. The steelwork is to be of a standard steel cross arm construction. There are 13 new spans of 11KV line required to facilitate the grid connection.	4289m
LA11/2016/0444/F	189.7 East of 64 Hollyhill Road is the beginning of the new line. The new line is coming off pole 41/623 The line finishes at 35M East of 16 Keenaghan Road Strabane at pole 41H/623	11 000 volt 3 phase wooden pole power line	550m
LA11/2016/0347/F	451m South 25A Cavanlee Road Strabane.	Erection of new 1315m of 3 phase 11kv overhead line on single poles from 300m south of 25 Cavanlee Road, Strabane to 210m north north east of 16 Carrigullin Road, Strabane to serve wind turbine approved under planning reference J/2014/0212 as part of the national grid infrastructure	3507m

Additionally, a review of the Cultural Heritage Impact Assessment produced for the Curraghinalt Project (2017) identified no overlap with the Scheduled Monuments assessed for that project and those within a 1km buffer of the Proposed Development (Curraghinalt 33kV Connection). Therefore, there are no predicted cumulative impacts on Scheduled Monuments due to a combination of the two projects. There is one Listed Building (HB11/17/001 – St. Mary's Church) which has been assessed by both projects, however the significance of cumulative effect is considered imperceptible.

In summary, when considering the Proposed Development in combination with other proposed and consented wind farm related overhead line and electrical connections developments within 5km of the Proposed Development there will be no likely significant cumulative impacts.

6.4.5 Transboundary impacts

Although a portion of the Proposed Development near Strabane will be close to the international boundary with the Republic of Ireland the study area for the cultural heritage assessment does not extend across the border. The closest National Monument (a designation in RoI for high status archaeological sites), Beltany Stone Circle

(reference no. DG070-026001) is located approximately 11.2km west of the Strabane substation site. Given the large distance between the Proposed Development and (DG070-026001), there is no predicted impact on this National Monument. Therefore, it is judged that there will be no predicted transboundary effects on the cultural heritage resource as a result of the Proposed Development.

6.4.6 Interactions

The LVIA (Chapter 5) has assessed the visual impact on two registered Historic Park and Gardens sites in close proximity to the Proposed Development: Holyhill (HB10/02/001) and Beltrim Castle (HB11/16/13). The Significance of Landscape Effect was considered 'not significant' for both sites.

6.4.7 Conclusion

Landscape change is an ineludible result of all modern developments. The landscape must have the capacity to absorb small changes, however these changes must be managed. The stone arrangement is a remote previously unrecorded potential archaeological site, which currently has no heritage designation or appreciable amenity value. It will not be directly impacted by the pole-sets of the proposed OHL, however the setting of this potential archaeological site will be impacted. The **Value** of this site of local importance is considered '**Potential Medium'**; the magnitude of the impact on the setting may be considered '**Potential Medium'**, as there is considerable change, thus the **Significance of Effect** is considered '**Potential Moderate'**.

Scheduled Monuments: Stone circle TYR018:056 and Stone circle complex TYR018:008 will not be directly impacted. These sites are located on private lands which are difficult to access and are expected to be seldom visited. It is not predicted that enjoyment of or engagement with these sites would be significantly impacted by the proposed OHL development. **The significance of effects** on Scheduled Monuments: Stone circle TYR018:056 and Stone circle complex TYR018:008 is considered **'Slight/ Moderate'.**

Consideration has been given to the proximity of Pole-sets 2222 – 2227 and the newly discovered stone arrangement site. Amendment of the alignment, with placement further north, would lessen the indirect impact on the setting of the stone arrangement. However, such movement of part of the line would increase the visual prominence of the OHL due to the increased altitude and associated potential for visibility in the skyline. Such movement wouldbring the line closer to other potential archaeological features and increase visibility from Scheduled Monuments TYR018:056 and TYR018:008 as well as other monuments to the north of Slievemore hill. During discussions with HED it was agreed that a short section of the overhead line (poles 2216 – 2228) could be moved to the southwest (within the planning corridor). This has the effect of bringing the overhead line closer to the Scheduled Monuments but has reduced the amount of the overhead line that breaks the skyline over Slievemore hill and thus has the likelihood to reduce the overall visual impact on the Scheduled Monuments.

The pole locations have been selected in consideration of limiting their aforementioned visual prominence and an ecological constraint, located in close proximity to pole 2224. In consideration of these matters, the proposed line design is considered the best available option.

A programme of robust mitigation measures will be put in place to lower the potential for direct impact on the newly discovered sites (even inadvertent) and on previously unrecorded sub-surface during works (see below).

The proposed OHL development will have no direct impact on recorded cultural heritage assets, or on the newly discovered potential archaeological features (possible mound and possible stone arrangement). Predicted impacts of the proposed OHL development will be of a visual nature. **However, no likely predicted significant impact is expected on the cultural heritage resource as a result of this Proposed Development.**

6.5 Mitigation

6.5.1 Construction Phase Mitigation

Based on the results of the desktop assessment and non-intrusive field surveys conducted for this assessment, it is considered that the study area has potential to reveal hitherto unrecorded archaeological remains. Although the footprint of the proposed scheme is limited (pairs of wooden pole-sets; and 500mm wide x 1m deep trench for underground cable route) any potential sub-surface features contained within same will potentially be directly negatively impacted. As such, in order to reduce this potential impact, all greenfield areas that are subject to

ground excavation for purposes of underground cabling will be subject to an archaeological programme of monitored topsoil stripping (watching brief) under archaeological licence from DfC:HED.

Prior to construction the designated working areas and routing accesses to and from site will take due cognisance of the recorded and potential (new sites) and the Cultural Heritage resource located within the study area. A pre-construction archaeological review of access routes will be undertaken along with a review of the final CEMP. Boundary limits/extents of the Proposed Development areas will be clearly marked out and cordoned off in order to create a clear exclusion zone (for on-site Contractors/Project personnel) within the vicinity of the identified recorded/potential archaeological monuments). This will serve to avoid any inadvertent adverse negative impact on the recorded sites. No ground excavation, dumping of spoil, vehicular movements or any other associated site works will take place within the exclusion zones pertaining to these recorded archaeological sites. An exclusion zone of approximately 50m by 50m in size (or larger if required) will be temporarily fenced off around the stone arrangement in the townland of Trinamadan. This will be undertaken prior to any works commencing in that area (including traversing through the area), be supervised by an archaeologist and remain in place until works are completed. This will ensure that this site is protected and avoid inadvertent damage to it.

All recorded and potential Cultural Heritage sites will continue to be preserved *in situ*, with no direct impacts on same. However, given an increased risk to encounter associated sub-surface remains, all pole-set locations adjacent to identified recorded Scheduled Monuments at Ballykeery and Culvacullion (see Table 6.1) as well as adjacent to the feature at Rousky (possible mound) and the stone arrangement at Trinamadan; will be subject to an archaeological programme of monitored topsoil stripping (watching brief) under archaeological licence from the DfC:HED, subject to agreement of DfC:HED. Based on the higher archaeological potential of this landscape, the quantity of pole-sets to be archaeologically monitored at these locations will extend for a minimum of 500m distant in each direction of the alignment (i.e. 1km overall length), subject to agreement with DfC:HED.

The topsoil stripping will be undertaken using a mechanical excavator fitted with a toothless ditching bucket under the constant supervision of the licensee. Should archaeological remains be uncovered appropriate mitigation such as, preservation *in situ* (preferred option) or further archaeological work in the form of archaeological excavation and recording will be implemented, in agreement with DfC:HED.

These works will take place post-planning consent but will constitute advance works prior to the main construction phase. Sufficient time and resources will be allocated within the construction programme of works in order to adequately address and mitigate any potential archaeological sites/features that may be uncovered.

It should be noted that any licensed archaeological monitoring works for the proposed scheme will require an evaluation reporting submission to DfC:HED. Furthermore, any identified potential archaeological excavation works will require a programme of works (method statement) agreed in advance with DfC:HED; as well as a post-excavation phase of works to be undertaken off site (with reporting and dissemination to the relevant authorities).

No applicable measures are available to mitigate the indirect effects of the Proposed Development.

6.5.1.1 Summary of Construction Phase Mitigation Measures

- Creation of exclusion zones at initial phase of Construction Stage and maintenance of same throughout works on the project, adjacent recorded/potential archaeological sites.
- Licenced archaeological monitoring programme (watching brief) at earliest stage(s) of construction phase at all greenfield cable route areas and adjacent areas of identified Cultural Heritage constraints (recorded and potential).
- Post-evaluation/excavation reporting, as appropriate, to the relevant authorities.

6.5.2 Operational Phase Mitigation

Any maintenance or management works required during the operational phase of the Proposed Development will take due cognisance of the presence of adjacent recorded and potential archaeological sites and the creation of exclusion zones as required, in consultation with DfC:HED. This will avoid inadvertent damage to archaeological remains.

6.6 Summary of Effects

In summary, the Proposed Development will not result in any likely predicted significant impacts on the cultural heritage resource. All recorded and potential Cultural Heritage sites identified within the study area pertaining to the Proposed Development will continue to be preserved *in situ*, with no direct impacts on same. The proposed OHL development will have no direct impact on the newly discovered potential archaeological features (possible mound and possible stone arrangement).

The Proposed Development has the likelihood to have an indirect (visual) impact of slight/moderate significance of effect on four recorded archaeological sites (three of which are scheduled); an indirect (visual) impact of potential moderate significance of effect on a potential (unrecorded) archaeological site (stone arrangement); as well as an indirect (visual) impact of potential not significant/slight significance of effect on a potential (unrecorded) archaeological site (possible mound). Direct impacts on three industrial heritage sites in the study area are considered not significant/slight significance of effects. Indirect (visual) impacts on two industrial heritage sites in the study area are considered imperceptible (see Table 6.4 above).

Overall, any potential direct impacts on hitherto unknown sub-surface features are deemed to be adequately mitigated by a licenced programme of archaeological monitoring (watching brief) with appropriate evaluation, recording and reporting therein.

No likely predicted significant impact is expected on the cultural heritage resource as a result of this Proposed Development.

6.7 References

Department for Communities: Historic Environment Division (DfC:HED) (2018) *Guidance on Setting and the Historic Environment.*
Department for Communities: Historic Environment Division (DfC:HED) (2019) *Development and Archaeology: Guidance on Archaeological Works in the Planning Process.*
Department for Communities: Historic Environment Map Viewer for Northern Ireland [available at https://dfcgis.maps.arcgis.com/apps/webappviewer/index.html?id=6887ca0873b446e39d2f82c80c8a9337; Accessed 12/11/2019]
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