

Chapter 4 Baseline and Assessment

Baseline summary

4.1 This chapter sets out the assessment of assets identified as potentially sensitive to the GGRP. As per the methodology, there is no mitigation suggested for setting effects, so the residual effect is the same as that initially stated and is not repeated separately. There is also no assessment of cumulative physical effects.

Designated assets

4.2 There are four listed buildings in the 200m study area. These listed buildings all stand near to existing accesses and are not at risk of physical change. Two [HES refs: LB10240 and LB10275] have visibility of (or in-combination) with the Proposed Development but only one [HES ref: LB10240] has been identified as potentially sensitive to effects arising from setting change.

4.3 Within the 3km study area for considering operational setting change the recorded designated assets comprise:

- Five listed buildings (four Category B and one Category C) all of which have theoretical visibility of the GGRP.
- One scheduled monument – St Connel's Church and graveyard [NHLE ref: SM134747] - with theoretical visibility of the GGRP.

4.4 These designated assets are mapped on **Figures 10.1a & b**.

4.5 A high-level review of the sensitivity of these asset's cultural significance to change as a result of the GGRP identified that the scheduled monument and two listed buildings – Kirkland Farmhouse [NHLE ref: LB10239] and Knowe Farmhouse [NHLE ref: LB10240] – would be considered further as part of the assessment. The other listed buildings have been scoped out on the basis that the ability to experience the GGRP within their setting will not affect their cultural significance, or the ability to understand, appreciate, or experience that significance.

Non-designated assets

4.6 The HER records 22 assets⁹ within 200m of the GGRP, seven of which lie within the construction footprint or ILA. For the most part these are post-medieval assets of low or unknown importance, but the nationally important Deil's Dyke is also crossed by the route of the GGRP. All but one of these assets are assessed below in relation to potential physical and setting effects. The asset not considered is the 20th century Rig Colliery [HER ref: MDG12691], as there is no physical interaction with this asset and visibility of the GGRP will not affect its evidential or illustrative value, understanding, appreciation or experience. Therefore no effect could arise.

4.7 Another 15 assets intersect with the 200m study area. With the exception of a Bronze Age cairn, these assets are of medieval and later date and typically of low or unknown importance. The potential for effects to these assets has been considered further in the assessment below.

4.8 A total of 13 additional features have been identified within the within the construction footprint, ILA or proposed felling areas of the GGRP. through desked-based research and the site survey. Of these, three features are considered to constitute assets that warrant further consideration in the assessment in relation to potential physical or setting effects. The GGRP could potentially interact with two of the features identified, but they are quarry sites of negligible archaeological interest. As such, they have not been assessed. No interaction is anticipated in relation to the other assets.

4.9 These non-designated assets are mapped on Figures 10.1a-c.

Effects arising from the GGRP

4.10 Construction of the GGRP will result in activity that could physically effect heritage assets. Generally, this will be ground intrusive activity or compaction resulting from:

- Excavation of the foundations and services for the Glenmuckloch substation.
- Excavation/ piling of the foundations for the towers (the construction method will vary according to ground conditions). A typical tower leg excavation will be 16m² by 4m for the line towers, increasing to 25m² by 5m deep for angle towers.
- Tree felling (80m wayleave, 40m either side of the OHL centre line plus additional tree removal for ancillary development) - this will be done via a variety of methods,

but for the purposes of this assessment the worst-case scenario – that of mechanical felling - is assumed.

- The creation of temporary access tracks and passing places. Again, there will be a variety of track construction methods, but the assessment assumes the worst-case scenario of cut and fill tracks.
- Excavation/ ground levelling associated with the construction of the temporary pulling and working areas.
- Ground intrusion/ compression from scaffolding blocks and anchorage.

4.11 Temporary effects resulting from construction have not been considered as they are temporary and fully reversible, and as such not significant. Therefore, only permanent setting effects arising from the operation of the OHL and the Glenmuckloch substation have been assessed. Setting effects will be derived primarily from the visibility of the GGRP; its key built elements include:

- C. 40 steel towers on average 27m high.
- The control building 4.12m high.
- The substation, the tallest part of which are the gantries (Gantry structures consist of a number of columns and girder beams that guide the power conductor from last tower near substation to the electrical equipment in the substation).

Assessment of assets within the GGRP construction footprint (including ILA and felling areas)

Archaeological potential within the ILA

Previous ground impacts

Quarrying

4.12 Part of the GGRP is located in areas where quarrying activity will have removed any heritage assets. Towers and associated infrastructure in such locations comprise 3, 4, 24, 25 and 26. Historic mapping attests the quarrying around Towers 3 and 4 and two aerial images illustrate that around Towers 24, 25 and 26. The Dumfries and Galloway extraction map data also suggests that Towers 27 to 30 are located in an area of former quarrying. This area includes the Rig Colliery which was worked for coal between 1948 and 1966, and may relate to this subsurface activity. However, there is no

⁹ There are technically 23 referenced records, but three all relate to the same asset - Deil's Dyke. Two records, which correlate to assets, have no HER references.

evidence to suggest any surface quarrying and assets with above surface remains are known to survive in this area.

Commercial forest

4.13 A number of the proposed tower locations and their associated construction infrastructure are located in areas that have been and/ or continue to be subject to commercial forestry activities, which can be highly damaging to surface and buried heritage assets. Tower locations and associated infrastructure which have experienced ground disturbance as a result of this activity include Towers: 1, 2, 3, 4, 17, 18, 19, 20, 22, 24 and 26.

Summary

4.14 Five out of 40 towers are located in areas that have been subject to a moderate to high level of ground disturbance, making the encountering of hitherto unknown archaeological remains unlikely. The infrastructure areas affected by ground disturbance are tabulated below.

Table 4.1: Areas of known ground disturbance

Tower	Associated infrastructure	Affected by quarrying	Affected by forestry
1	All	-	Y
2	All	-	Y
3	All	Y	Y
4	All	Y	Y
17	All - bar part of new access	-	Y
18	All - bar part of new access	-	Y
19	All	-	Y
20	All	-	Y
21	All	-	Y
22	All bar new access	-	Y
23	All	-	
24	All	Y	Y

Tower	Associated infrastructure	Affected by quarrying	Affected by forestry
25	All	Y	Possibly
26	All	-	Y
27	All	-	Y

Potential for hitherto unrecorded remains

4.15 The areas of the GGRP that have not experienced disturbance include Towers 5 to 16 which crosses relatively high moorland between Bank Rig and Kello Water. The topography and ground conditions of this area – which include some of the deepest areas of peat – are not conducive to settlement activity and the potential for hitherto unknown archaeological remains in this area is consider very low.

4.16 The next section of the GGRP that runs through an undisturbed area is Towers 28 to 40 and the substation, which crosses the Nith Valley between Polmeur Hill and Lagrae. This area is at a lower elevation within the river valley, where there are more fertile soils and natural resources provided by the river. This area contains more evidence for human activity and settlement, mainly of pre and post improvement era, but with some suggestion of Roman and later prehistoric activity. This area has the greatest potential for hitherto unrecorded remains.

Assessment

4.17 Any hitherto unknown remains are likely to be of low (local) importance. The extent of any physical impact may vary from small to large resulting in **minor to moderate** level of effects. To help offset this, archaeological monitoring (i.e. a watching brief) may be required. As a result, the worst-case residual effect would be **minor**.

Deil's Dyke [HER refs: MDG11244, MDG11245, MDG11246]

Description

4.18 Deil's Dyke is the name given to a linear earthwork which runs for 10km from east of Afton Water (at approximately NS 6169 1142) to Burmmouth (at approximately NS 8400 0500), along the southern side of the Nith Valley, part way up the hillslope. In relation to the Site, it is recorded as running east to west along Polmeaurhill Wood, with a second stretch lower down the valley side running through Rig Plantation.

Figure 4.1: First edition OS map showing the extent of the dyke c. 1898

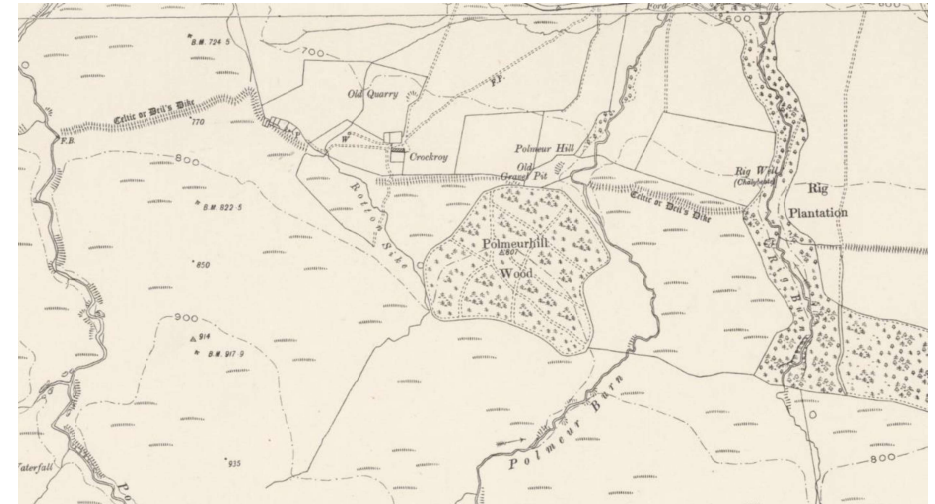


Figure 4.2: LiDAR DTM 50cm showing the GGRP intersection with the Deil's Dyke (mapped in pink as per the HER records; ILA area shown in blue, access tracks in black, working areas in orange, and 200m study area in grey)

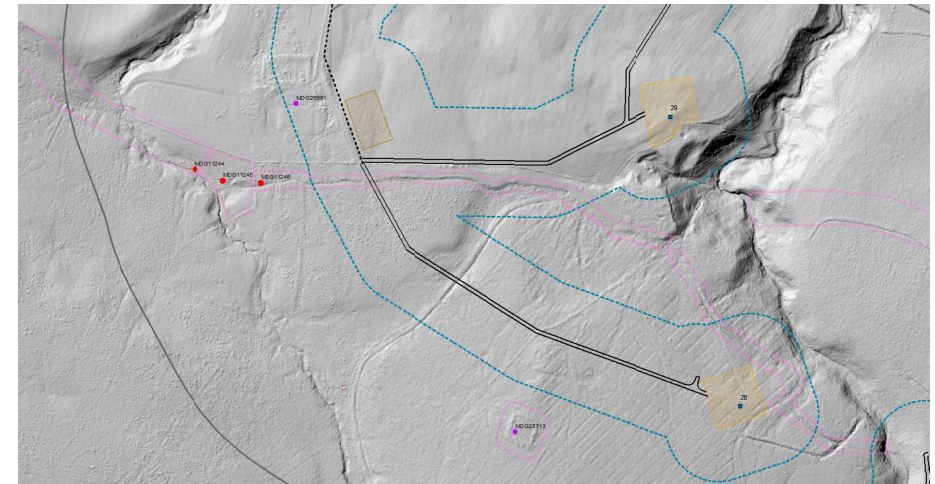


Figure 4.3: Aerial imagery showing the track marks from the existing track at Crockroy through to the Polmeurhill Plantation boundary (ILA area shown in blue and working areas in orange; access tracks not shown)



4.19 Where extant Deil's Dyke typically comprises an earthen bank of rounded profile measuring between 2.0-4.0m wide and up to 0.7m high (see Figure 4.4). In places there is also a ditch on the uphill side, which typically measures 0.5m wide and 0.4m deep. Where it crosses through the Site and study area the condition of the dyke is mixed, as visible from review of historic maps and LiDAR data (Figure 4.1 and 4.2).

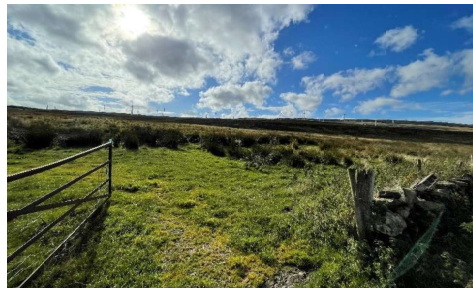
4.20 Historic mapping shows that in the past the dyke bank was not present from the western edge of the study area to NGR 2760357, 611738, which is roughly south of Crockroy Farmstead. This is confirmed by the LiDAR imagery (Figure 4.3) which does not show the bank as being present here; it also suggests that there is little in the way of a surviving ditch. The bank begins to be depicted on the historic mapping just southwest of Crockroy Farmstead, with a track heading south from the farmstead crossing it. This track is no longer extant, but another track now heads south from Crockroy c. 90m further east. This later track leads to a gate just north of where the dyke is, and aerial imagery suggests that the dyke has been crossed here by vehicular and animal movement over many decades, as trackmarks can be discerned passing

through the gate and heading across to the former Polmeurhill plantation. Field survey has shown that the dyke continues to survive at this crossing point, but only as very slight earthworks.

Figure 4.4: Extant section of Deil's Dyke to the east of the proposed access (looking east, towards Rig Plantation) which survives well



Figure 4.5: Low-level survival of Deil's Dyke by the gate south of Crockroy Farmstead (looking southwest)



4.21 Moving further east, the bank of the dyke and ditch survive well up until where it coincides with Polmeurhill Plantation bank and an area that was quarried and used as a tip. The HER suggests that the dyke splits at Polmeurhill burn, with one section heading due east and another heading southeast through what as Polmeurhill Plantation. Historical mapping depicts only the more direct eastern stretch, which has since been lost via quarrying activity.¹⁰ The stretch of bank that heads southeast is not depicted on historic mapping, presumably because of the plantation tree cover then present. However, this section of the dyke can still be traced on LiDAR imagery (see Figure 4.2).

4.22 The function and date of the dyke is unknown. Its size and form do not indicate a defensive function and its irregular route suggests that it is not a political border.¹¹ However, many stretches have been used, or reused, as a head-dyke that broadly divides upland pasture from lowland arable and several of the changes in direction appear to be deliberate detours to enclose as much favourable arable land as possible. There is also rig and furrow (earthworks from ploughing) extending up to, but not beyond it.

4.23 In terms of setting, the section of the dyke that passes through the study area lies in undeveloped land, comprising large enclosures, open moorland, and forestry plantation. Sandy Knowe Wind Farm is clearly visible to the south, and to the north is the partially infilled open cast quarry at Glenmuckloch.

Significance

4.24 The heritage significance of this asset is derived primarily from the historical illustrative value of its upstanding remains. Whether a single feature, or a group of related linear features, it is of unusual extent and the bank and ditch often survive well. It also derives significance from its scientific value and the ability for its archaeological investigation to inform our understanding of its date and function.

4.25 The wider largely undeveloped landscape is important to understanding its boundary function between different types of land, as are the adjacent areas of rig and furrow which extend up to it. The undeveloped setting of the asset also allows for some appreciation of the length of the monument, although this is limited by the varying survival/visibility of the upstanding remains of the monument and the fact that the ground cover or stone walling often conceals its presence.

Importance

4.26 The importance of this asset varies in line with its survival; where best preserved it is considered to be of national importance due to it being a well-preserved example of a feature with few parallels. In areas where it survives less well, and without upstanding remains, such as where the GGRP will intersect with it, its importance is considered to be medium (regional)¹¹.

Magnitude of change

Construction

4.27 A proposed temporary access to Tower 28 will physically cross Deil's Dyke from the existing trackway past Crockroy through the gate and head southeast to the proposed tower location, as depicted in **Plate 9.2**. The ILA for

Tower 28 and its working area, as well as the proposed temporary access to Tower 29 also physically intersect with it. The upstanding earthworks of the section of dyke that the proposed access to Tower 28 will cross, just south of Crockroy, does not survive as well as in other areas, and is an area where some form of existing traffic already crosses it. Nonetheless, there is the potential for the surviving earthworks and any buried remains to be damaged via heavy vehicular movement which could churn up or compress the feature. Depending on the access' method of construction there is also the potential for loss of damage through ground intrusive activity. This would result in a small magnitude of change. There is the potential for similar change to arise in the event that any micrositing of Tower 28 and its working area, as well as the proposed access to Tower 29, although micrositing of the latter is unlikely given the presence of an intervening stone wall.

Operation

4.28 The GGRP OHL will be visible from and in combination with the asset.

Assessment of effect

Construction

4.29 The GGRP would result in the loss of small section of a much larger asset, at a point where the feature does not survive as well as it does elsewhere; although it still retains some low level upstanding remains. This would result in a minor reduction of the scientific and illustrative value of the feature and the significance of this effect would be **minor**.

Operation

4.30 In EIA terms, there will be no effect to the cultural significance of the asset as a result of the operation of the GGRP.

Mitigation of construction effects

4.31 Suitable matting (cordoned either side) and low-pressure vehicles will be used to facilitate the access to Tower 28 across this asset. This will prevent any damage to the surviving earthworks and buried remains. Micrositing of the access to Tower 28 where it crosses the dyke will not be undertaken and the asset will be cordoned off from these areas.

4.32 Micrositing of the working area associated with Tower 28 to the north or east will also not be undertaken. Where the dyke passes close to the working area for Tower 28, the

¹⁰ See NCAP Aerial Photo vertical ASS/62188, Frame 0162, 1988

¹¹ <https://canmore.org.uk/site/101258/deils-dyke> [accessed 21.10.22]

standard practice of cordoning off the working area will ensure that no accidental damage arises to it.

4.33 To prevent any physical harm to the asset, micrositing of the access will not be undertaken to the south of Tower 29.

Residual construction effect

Construction

4.34 Following mitigation and best practice measures there would be no residual physical effect to the cultural significance of the dyke.

Cumulative operational effect

4.35 No cumulative physical or setting effects have been identified. There is the potential for cumulative schemes (e.g. the Glenmuckloch and Lethans windfarms) to be experienced as part of the asset's setting, in longer distance views. These windfarms are approximately 1km to the south and southwest of where the GGRP intersects with the Dyke and c. 3.8km to the north of the GGRP intersection with the dyke respectively. These consented developments and those with valid applications will visibly increase the amount of modern infrastructure within the setting of the dyke but will not affect its cultural significance, or the understanding, appreciation, or experience thereof.

Site of Blacksmiths workshop [HER ref: MDG24473]

Description

4.36 The first edition OS map of 1860 shows the site of the of an L-plan building, labelled as a smithy, on northern edge of railway cutting. The smithy was short lived and is not shown on revised edition of around 1907. The cutting is now depicted as being more regular suggesting that it may have been recut, a process which would have damaged any buried remains. In terms of setting, the buried remains are located within the cutting of the railway, in an otherwise rural area that was historically subject to quarrying.

Figure 4.6: First edition OS map showing the site of the smithy¹²

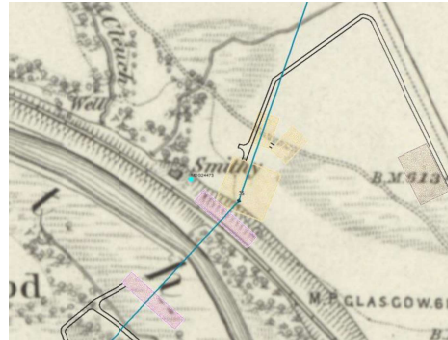
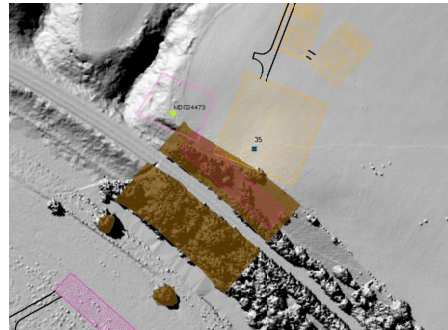


Figure 4.7: LiDAR imagery (50cm DSM) of the Smithy site (with archaeological area of interest shown in light pink)



Significance

4.37 The heritage significance of this asset is derived primarily from its scientific value and the ability of any buried archaeological remains to inform our understanding of the use and abandonment of the site, as well as contribute to our wider understanding of late post-medieval industry. The setting of the asset does not contribute to its scientific value.

Importance

4.38 This asset is of low (local) importance as it has the potential to help address local research questions.

Magnitude of change

Construction

4.39 The area of archaeological interest associated with the site is intersected by the scaffolding area for Tower 35, and lies within the micrositing area for the tower, its working areas and access track (see Figure 4.7). An area of proposed felling also intersects with this asset's location (see Figure 4.7; felling area shown in brown).

4.40 This change could result in the compaction of remains and cause isolated areas of damage. More general disturbance and truncation could result from micrositing of the tower and its working area/ access. Overall, these effects would reduce the scientific value of the asset, albeit by a relatively slightly.

Operation

4.41 The GGRP OHL will be visible from and in combination with the asset.

Assessment of effect

Construction

4.42 Construction of the GGRP would result in the damage or loss of a small area of a larger site of low importance. The effect of this would be **minor** and not significant in EIA terms.

Operation

4.43 Setting does not contribute to the significance of this asset and so the ability to experience the GGRP OHL towers within in combination with or from this asset will have no effect on its heritage significance, or its appreciation, understanding or experience thereof.

Mitigation of construction effects

4.44 The CEMP should indicate that the area to the west of the track is not suitable for micrositing of the laydown area and the area should be fenced off beyond where the scaffolding intersects with it. Monitoring of the scaffolding is unlikely to yield results given the very localised nature of the ground intrusive activity.

Residual construction effect

4.45 The residual effect will be **minor** as not all of the change can be avoided or offset.

Cumulative operational effect

4.46 It is possible that some of the cumulative schemes within the study area may be experienced within the setting of this asset but, because the setting of this asset makes little

contribution to its significance, understanding, or how it is experienced, there will be no effect.

Rack Farmstead [HER ref: MDG17017]

Description

4.47 This asset is located approx. 500m north of the A76 and 10m to the east of the River Nith. It comprises the partially upstanding remains of a later post-medieval farmstead, which appears to have been modified. The ranges survive as a single-storey stone-built structure in dilapidated condition, with no roof; the enclosure walls to the front survive. The buildings are all in a similar style of rubble with sandstone ashlar quoins.

Figure 4.8: Rack Farmstead (looking northeast)



4.48 The farmstead is depicted on the OS 6-inch map - Dumfriesshire 1860, Sheet V as rectangular plan building with various smaller outbuildings and four enclosures. On this map, the farmstead is annotated as 'Rack'. Later 19th century OS maps, continue to show a building at this location called Rack, but depict it as a larger L-shaped building with a smaller rectangular plan building adjacent to it. This suggests that that the farmstead had been rebuilt or modified, and that there may

¹² Reproduced with the permission of the National Library of Scotland.

be the potential for archaeological remains of an earlier building.

4.49 Historic maps depict an enclosure to the front of the house and a circle to the rear annotated springs, suggesting the construction of a well. They also show that the farmstead was accessed by a track from the road to the south (now the A76), which ran along Rig Bank to Rack before turning back south to the road passing by Rig Farm. Today, only the return section of the track between Rack and Rigg survives. Review of Lidar and aerial imagery has revealed the presence of a square enclosure approximately 20m to the southeast of the building, centred on 271361, 612703. The enclosure is assumed to be related to the farmstead but does not correspond to anything depicted on the historic OS maps. The HER maps an area of archaeological interest around the building and enclosure. LIDAR imagery also shows the presence of rig and furrow, the earthwork remains of ploughing, in the surrounding area. This rig and furrow could be derived from the agricultural practices of the farmstead (or others nearby).

4.50 The former Glasgow and South Western Railway line passes to the north and east of the asset, at approximately 290m and 270m respectively, but is screened to some extent by intervening vegetation. Kirkconnel is located approx. 1.5km to the west and the asset is one of several isolated properties on its outskirts. It has a largely rural setting, albeit one which includes the aforementioned development as well as, existing OHL (supported by single or double wooden poles), telecommunication masts, and wind turbines. The setting of the asset also includes commercial forest plantations.

Significance

4.51 The heritage significance of this site is derived primarily from the evidential value of the former building that was located here and the historical illustrative value of the present building. Together, the buried remains and extant building tell the story of the development of the site during the improvement era. The enclosures, trackway and rural setting of the farmstead all contribute to its historical illustrative value, although the full-time depth of the area will only be appreciable at a limited scale given the limited upstanding remains of the earlier farmstead site.

Importance

4.52 As a ruinous example of an improvement era farmstead this asset is of low (local) importance.

Magnitude of change

Construction

4.53 The access track to Tower 34 intersects with the building and its area of archaeological interest, but this is assumed to be a digitisation error with the access running alongside the farmstead and adjoining the existing track that runs south to the A76. The building and a large part of its area of archaeological interest, lie within the microsetting area of the proposed access to Tower 34 and the working area associated with Tower 33, but for practical reasons such interaction is unlikely.

4.54 A laydown area is proposed alongside the track leading to the farmstead, behind a historic drystone wall bounding fields adjoining the farmstead. There are existing entrances to the field and in the first instance these should be used to access the laydown area. If this is not possible then access will require some removal of the drystone wall. The loss of which will be small.

Operation

4.55 In terms of setting change, the OHL will run approx. 320m to the north of the asset and then pass approximately 240m to the west of it, as such the OHL will be visible from and in-combination with the asset, Tower 35 to the north sits beyond the railway line and will be screened to some extent by intervening vegetation.

4.56 The addition of the GGRP into the setting of the farmstead could be argued to diminish its rural character by a small amount. However, OHL are not uncommon features of rural landscapes, and, in this instance, they will be adding to an array of existing energy infrastructure visible both from and in-combination with the asset, as well as forest plantation. This infrastructure includes existing wind turbines as well as OHL, albeit smaller ones supported by wooden poles.

Assessment of effect

Construction

4.57 Physical effects to the building will largely be avoidable by design. The only exception may be the partial removal of the dry-stone enclosure wall and the effect of this will be **minor**, as well as reversible.

Operation

4.58 There are existing OHL that pass closer to the asset than the proposed GGRP towers and the distance between the OHL and the asset means that GGRP will be read and understood as a separate feature, one which may diminish the rural character of the asset's setting, but not to such an extent as to meaningfully affect the illustrative value of the asset. As such, the building will continue to be understood and

appreciated in the same way, although its rural experience may be slightly altered. The effect of this will be **minor**.

Mitigation of construction effects

4.59 Any physical interaction between the GGRP and the farmstead building, and its enclosures will be avoided by design. If any removal of the dry-stone enclosure wall is required to facilitate access to the laydown area, then careful reinstatement will be required. No mitigation is possible for the assessed setting effects.

Residual construction effect

4.60 Reinstatement of the stone wall will mean that there is no lasting change to its illustrative value and no residual effect.

Cumulative operational effect

4.61 An extension has been proposed to Sandy Knowe Windfarm which stands approximately 2.2km to the southwest of Rack Farmstead. The existing Sandy Knowe turbines are 125m high to blade tip and the extension comprises another six turbines up to 149.9m to tip. Two of these will be directly southwest of Rack Farmstead at a distance of c. 1.9km and the other four will be located along the western edge of Sandy Knowe Windfarm at a distance of nearly 3.2km from the farmstead. The new turbines will be experienced as part of the existing windfarm and the ability to perceive them in-combination with the GGRP will not materially alter the significance, understanding, or appreciation of the farmstead beyond the **minor** setting effect outlined above.

4.62 It is also likely that some of the turbines from the Glenmuckloch and Lethans windfarms c. 3.1km to the north of farmstead will be perceived in longer distance views. These will visibly increase the amount of modern infrastructure within the setting of the farmstead. However, the distance between the OHL and the asset means that new turbines will be read and understood as a separate feature, and whilst adding to the overall amount of infrastructure visible in the setting of the asset the change will not affect the asset's significance.

Rack Farmstead [HER ref: MDG26118]

Description

4.63 In an area of post-and-wire fence enclosed fields 272m south of the River Nith and the railway line, is a rectilinear arrangement of earthworks that are visible on Lidar, and aerial imagery, and which were verified during the walkover survey. The earthworks consisted of four rectangular earthwork enclosures arranged in a rectangle, with each enclosure separated from the others by a central "alley" around 2m in

width. The complex measures 15m north-south and 27m east-west overall, with the earthworks standing to 0.8m in height.

4.64 The earthworks have been interpreted and the remains of a small farmstead/croft that predates the historic mapping, meaning it is pre-improvement era (e.g. medieval to early post-medieval date). It is located 200m east of the 18th century improvement era Rack Farmstead and may be its predecessor.

4.65 LiDAR imagery suggests that there is an L-shaped wall that runs south from the southeast corner of the complex and then turns west, this may be a boundary wall. Approximately 50m west of the farmstead there is a further rectilinear earthwork measuring 16m north-south by 6m east-west, with banks standing 0.3m high. This appears to be the remains of another structure, possibly a building. A large, low area of field clearance debris was noted 20m southwest of this possible building; it was situated within boggy ground and measured 8m by 5m and was 0.3m high. Rig and furrow earthworks are also evident in the area to the north of the farmstead earthworks, these are straight indicating that they are of later date and not contemporary.

4.66 The setting of these assets is primarily rural with an open aspect, but includes later field enclosures, commercial plantation, rig and furrow, and modern infrastructure, including the Glasgow and Southwestern Railway, the A76, OHL and modern agricultural buildings.

Significance

4.67 The heritage significance of the farmstead is derived primarily from its evidential interest and the ability of archaeological investigations to uncover further information on medieval to early post-medieval (pre-improvement era) rural living. Its upstanding earthwork remains also have some limited illustrative value, this value is increased by the farmstead's likely association with the earthwork remains of the second building and the field clearance which as a group tell the story of the lands agricultural use. The earthworks of the probable building and the field clearance also have evidential value of their own. The rural setting of the asset is not contemporary as it includes later field enclosures, rig and furrow and modern infrastructure, however, it is not wholly dissimilar to the way in which it would have been experienced historically.

Importance

4.68 This asset is of medium importance as a well-preserved example of its kind with the ability to inform our understanding of medieval/post-medieval rural settlement and agriculture at a regional level.

Magnitude of change

Construction

4.69 This group of features lies primarily within the 200m study area of the ILA, but a tiny part of the area of archaeological interest defined around the farmstead earthworks is overlapped by the ILA of a working area associated with Tower 33. This overlap means that there is the potential for a small area of the site to be lost or truncated. This would result in a small change to the scientific (evidential) value of the asset.

Operation

4.70 The GGRP will pass approximately 150m to the northeast and south of this asset and will be visible from and in-combination with it. The introduction of additional modern infrastructure into the largely rural setting of the asset will not change its evidential value (i.e. archaeological potential) or interrupt the ability to read the group of earthworks together and understand their relationship and the story they tell visually. However, visibility of the GGRP will result in a small change to the rural experience of the asset adding to the modern infrastructure experienced within its setting.

Assessment of effects

Construction

4.71 A small physical change to an asset of medium importance would result in a **minor** effect to its cultural significance.

Operation

4.72 A small change to the way in which the significance of the asset is experienced would result in a **minor** level of effect.

Mitigation of construction effects

4.73 Micrositing should not be allowed within the area of archaeological interest associated with this asset and this area should be cordoned off during construction.

Residual construction effect

4.74 Avoidance by design will mean that there will be no residual effect.

Cumulative operational effect

4.75 The GGRP will be visible in combination with the Sandy Knowe Wind Farm extension but in the context of the existing Sandy Knowe Wind Farm, the additional turbines will not represent a change that affects the significance of the asset. There will be no cumulative change or effect to the heritage significance of the asset.

Kello Bridge Farmstead [HER ref: MDG17018]

Description

4.76 This asset, the buried remains of a former farmhouse, is located in a field on the outskirts of Kirkconnel, a short distance south of the Kello Water and just north of an unnamed road junction. The HER records that in the mid-19th century it was described as an "old thatched house...it formerly was a farm house." The first edition OS six-inch map (c. 1850s) depicts two rectangular plan buildings, annotated as 'Ruin', on the western edge of a roughly rectangular enclosure. The enclosure is bounded to the south by an unnamed road and to the east Birkburn. The building and enclosure are not depicted on the later 19th century OS maps, and nothing is visible at its location on aerial/ LiDAR imagery.

Significance

4.77 The heritage significance of this asset is derived from primarily from its scientific value. Setting makes no contribution to the evidential value beyond providing some legibility in terms of rural context.

Importance

4.78 This asset is of low importance as its scientific value could help address understanding of local patterns of settlement and agriculture.

Magnitude of change

Construction

4.79 This asset is located within the ILA of access point C and a trackway, both existing, to the south of the road. It cannot practically be moved to the area in which the asset is located, so there is no risk of physical change.

Operation

4.80 Setting change will arise from the temporary construction use of the track, but this will be temporary and reversible. The GGRP OHL, will be over 1km to the southwest.

Assessment of effects

4.81 There will be no physical or setting effects to this asset as a result of the construction or operation of the GGRP.

Mitigation of construction effects

4.82 No mitigation is required.

Residual construction effect

4.83 There will be no residual construction effect.

Cumulative operational effects

4.94 There will be no cumulative effects to the cultural significance of this asset as a result of the operation of the GGRP.

Crockroy Farmhouse [HER ref: MDG26991]

Description

4.95 This asset is a former farmhouse and farmstead. It comprises an extant building that is rectangular in plan, with its main elevations looking north/ south. The building is located along the lower southern hill slope of the Nith Valley, with wide views north across the valley. It is located in a rural area, that was previously subject to large-scale extraction activity. The house is accessed via a track that runs south from the main road to the north of the house, past the eastern end of the building. The track branches west in front of the house and a short distance along it to the west is a sheepfold; a second branch of the track runs south from the western end of the house.

4.96 The house dates to at least the early 18th century as it is depicted on General Roy's Military Map (c. 1747 – 1755) and annotated as 'Crockroy'. The first map to show the house in detail is the 1860 first edition Ordnance Survey map, which depicts it as a long building aligned east-west, with an enclosure attached to its south side, and a second detached enclosure to the north. A third larger enclosure is depicted extending to the northwest and southwest of the house, parts of this enclosure's boundary bank survive and are mapped by the HER.

4.97 The second edition OS mapping shows the long building divided into four compartments. It appears to remain compartmentalised, and the front and rear yards are discernible, but only via grassland management.

Significance

4.98 The cultural significance of this asset is derived primarily from its historical illustrative and architectural value as an, albeit modified, post-medieval farmhouse. The sheepfold, trackways and boundary banks add to its illustrative value helping to articulate its former function as a farmhouse/ farmstead. The building may have some limited evidential value depending on its construction methods and materials.

Importance

4.99 This asset is of low importance as a good example of its kind, with the ability to help address local research questions.

Cumulative operational effects

4.84 There will be no cumulative effects to the heritage significance of this asset as a result of the operation of the GGRP.

Cadgerhall Road Bridge [HER ref: MDG120]

Description

4.85 This asset comprises a short single span arched bridge with a low stone parapet. It carries an unnamed road off the A76 over a small tributary of the River Nith.

Significance

4.86 The heritage significance of this bridge is derived primarily from its architectural and historical illustrative value as a potentially early example of its kind. It has a historical and functional value with the road and stream that is important to its illustrative value.

Importance

4.87 This asset is of local importance as a good example of its kind.

Magnitude of change

Construction

4.88 The bridge is located within the ILA of access point D to the south of the road. However, practically this access point cannot be moved to the area in which the asset is located, so there is no risk of physical change.

Operation

4.89 The proposed access may be visible within the setting of the asset but will also not affect the elements of the assets setting that contribute to its significance.

Assessment of effects

4.90 There will be no physical or setting effects to this asset as a result of the construction or operation of the GGRP.

Mitigation of construction effects

4.91 No mitigation is required.

Residual construction effect

4.92 There will be no residual construction effect.

Mitigation

4.93 No mitigation is required.

Magnitude of change

Construction

4.100 The building lies within the micro-siting area of a working area, located to the east of the track that leads to the house. Any physical interaction with the building, and elements of its setting that contribute to its significance will be avoided by design.

Operation

4.101 The GGRP OHL will be visible from and in combination with the asset, albeit at a distance of approx. 350m and obliquely given the orientation of the building.

4.102 The ability to perceive the OHL in combination with the asset will not affect its heritage significance. This is because the OHL will be perceived at some distance to the east of it, not behind or in front of it, and thereby not impinging on the ability to appreciate its historical illustrative or architectural value. The GGRP will not alter the relationship between the building and its associated enclosure or trackway and, whilst it may be argued to have a small effect in diminishing the rural character of the landscape, this change will not be in close proximity to the building allowing its appreciation and key illustrative value to remain unchanged.

Assessment of effects

Construction

4.103 There will be no physical effects to this asset as a result of the construction or operation of the GGRP.

Operation

4.104 The small effect to the rural experience of the asset will result in a **minor**, non-significant level of effect.

Mitigation

4.105 The CEMP will indicate that the area to the west of the track is not suitable for micro-siting of the laydown area.

Cumulative operational effects

4.106 An extension has been proposed to Sandy Knowe Windfarm which stands approximately 1.1km to the south and southwest of Crockroy Farmstead. The existing Sandy Knowe turbines are 125m high to blade tip and the extension comprises another six turbines up to 149.9m to tip. Two of these will be c. 0.85km south of Crockroy Farmstead and the other four will be located along the western edge of Sandy Knowe Windfarm at a distance of nearly 2km from the farmstead. The new turbines will be experienced as part of the existing windfarm and the ability to perceive them in combination with the GGRP will not materially alter the

significance, understanding or appreciation of the farmstead beyond the minor setting effect outlined above.

4.107 It is also likely that some of the turbines from the Glenmuckloch and Lethans windfarms c. 3.5km to the north of farmstead will be perceived in longer distance views. These will increase the amount of modern infrastructure within the setting of the farmstead. However, the distance between the OHL and the asset means that new turbines will be read and understood as a separate feature, one which may slightly diminish the rural experience of the asset, but which will not affect the key illustrative value of that the rural setting makes to the asset's significance.

Birk Burn Enclosure [HER ref: MDG26115]

Description

4.108 This asset comprises a squarish cropmark noted on aerial photographs in agricultural land to the north of the A76, between Rig Farmstead (now a B&B) and the ruins of Rack Farmstead. It was identified as part of a desk-based assessment by SLR Consulting, in 2011. It could not be identified during this desk-based assessment and was not verified on the ground during either the SLR or LUC walkover surveys. It seems likely that this is not a genuine feature or that the square enclosure east of Rack Farm, has been mislocated.

Significance

4.109 This is not considered to be an asset with heritage significance.

Importance

4.110 This is not considered to be an asset of material importance in planning terms.

Magnitude of change

4.111 This asset is located in the ILA for an existing track, which will not be moved meaning that there will be no physical change.

Assessment of effect

4.112 There will be no effect given the reuse of the track and the fact that the asset is considered to be of dubious identification.

Mitigation

4.113 No mitigation is required.

Cumulative operational effects

4.114 No cumulative effects will arise.

Rack enclosure [LUC1]

Description

4.115 A square enclosure is evident on LiDAR imagery c. 35m east of the improvement era farmstead at Rack. The enclosure measures approximately 15 by 17m. Its date and function are unknown; it may relate to the farmstead or be an earlier feature.

Significance

4.116 The heritage significance of this asset is derived primarily from its scientific value; if it survives as earthworks – as suggested by the LiDAR data, although it was not noted on the ground during field survey – then it may have some very limited illustrative value. Its setting does not contribute to its scientific value and without understanding its date or function any contribution to its limited illustrative value is uncertain; it could potentially have a functional relationship with Rack Farmstead that is legible visibly via its spatial proximity.

Importance

4.117 As the function and date of this asset is unknown its importance is unclear. However, its morphology and spatial relationships suggest that it is related to the farmstead and is of no more than low importance.

Magnitude of change

Construction

4.118 This asset extends into the ILA of a laydown area. There is the potential for partial loss, truncation, or compression of this asset. This would constitute a small magnitude of change.

Operation

4.119 The GGRP will be visible within the setting of this asset, but this visibility would not change its potential limited illustrative value or visual and functional relationship with the farmstead.

Assessment of effect

Construction

4.120 A small magnitude of change to the physical survival of an asset of low importance would result in a **minor** level of effect.

Operation

4.121 There will be no operational effect to the significance of this asset, or the appreciation, understanding or experience of that significance.

Mitigation of construction effects

4.122 Physical effects can be avoided by design and the cordoning off the asset.

Residual construction effect

4.123 Avoidance by design will mean that there is no residual effect.

Cumulative operational effect

4.124 Whilst it is possible that some of the cumulative development may be experienced within the setting of this asset there will be no cumulative effect, as it will not affect the elements of its setting that contribute to its significance.

Plantation boundary [LUC2]

4.125 The boundary - a low dry-stone wall - to the post-medieval Polmeurhill plantation survives almost wholly intact, although its condition varies from good to poor. The plantation is depicted on the first edition OS map but the site but was relatively short-lived and, given over to agricultural use at some point in the 20th century. Extensive, deep drainage channels, assumed to relate to the ground preparation within the plantation bank, remain extant.

Significance

4.126 The cultural significance of this asset is derived from its illustrative value of early forestry practice in the area as part of a wider package of agricultural 'Improvements' in the 18th and 19th century. In terms of setting, the boundary once had a functional relationship with plantation within it that contributed to its illustrative value, but this has been lost.

Importance

4.127 This asset is of low value, with the ability to help understand the development of local industry.

Magnitude of change

Construction

4.128 A new access and its ILA track to Tower 28 is proposed to cross through the north-western edge of the boundary and the ILA for Tower 28 and its working area also intersects with the eastern side of the boundary. The access track will cross the boundary at a point where it survives relatively poorly, whereas the stretch of the boundary that the

ILA are for Tower 28 and its working area, will potentially interact with a section that survives quite well. In any worst-case scenario, small areas of the boundary wall could be removed, reducing its illustrative value. This change would be small.

Operation

4.129 The GGRP will be visible from and in combination with the asset, but this will not affect its illustrative value as it will clearly be read as a separate feature. As such, there will be no change to the contribution that setting makes to the significance of the asset.

Assessment of effect

Construction

4.130 A small change to an asset of low importance will result in a **minor** effect.

Operation

4.131 There will be no operational effect.

Mitigation

4.132 The access track should seek to be microsituated to ensure that least alteration to the wall is needed. If it only survives as earthworks, then suitable matting and lightweight vehicles should be used. If any stonework is removed, then it should be fully reinstated. Around Tower 28 the wall should be cordoned off and interaction avoided by ensuring that any microsituation of the Tower and its working area do not impinge on the boundary.

Residual construction effect

4.133 Following avoidance and/or reinstatement the residual there will be no residual effect.

Cumulative operational effect

4.134 There is no potential for cumulative effects to this asset as the GGRP will not affect its significance via its setting.

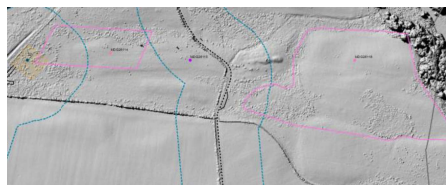
Ridge and furrow and field boundaries [HER refs: MDG26114, MDG26116 and MDG26117]

Description

4.135 The HER records three areas of post-medieval ridge and furrow in the 200m study area, between the River Nith and the 19th century Rigg Farm; near the remains of two other historic farmsteads at Rack. Two areas of rig cultivation [HER ref: MDG26114 and MDG26116] are recorded north of Rigg Farm. Neither are visible on recent LiDAR imagery and

historic maps suggest that both areas were historically bog or mosses. They also could not be verified during the site visit. It seems likely that the spatial information for these two features is incorrect. Other areas are evident to the south and north of the stated areas, and it may have been these areas that are referred to. That said, one of the areas [HER ref: MDG26114 and MDG26116] does appear to contain some short stretches of field banks, which may be further evidence of improvement era farming practice associated with Rack Farmstead, an improvement era farm, but this is not definitive and evidence of activity from earlier periods is also present in the area.

Figure 4.9: LiDAR data for MDG26114 and MDG26116



4.136 A third area of ridge and furrow, associated with a low field bank is recorded just south of the River. The bank broadly corresponds to a field boundary depicted on the 1896 OS map, which depicts the area to the east and south of the field bank as bog. Both earthwork features are visible on LiDAR and aerial imagery and were verified in the field during the LUC (2021) walkover survey.

Significance

4.137 These earthworks derive their significance from their scientific and illustrative value as the remnants of post-medieval agricultural practice. Where present together, the field bank and rig and furrow have a historical and functional relationship that can be understood visually, and it is possible that all of the earthworks have a wider functional and historic relationship with one of the nearby historic farmsteads. Given the low-lying nature of the earthworks though, this will not be visually appreciable over any great distance.

Importance

4.138 These assets are of low importance as agricultural features of local interest.

Magnitude of change

Construction

4.139 The ILA for Tower 32 and its working area intersect with the area of archaeological interest outlined for one of the areas of rig and furrow [HER ref: MDG26114] that could not

be identified. As the asset is either mislocated or does not survive, no physical change will arise.

Operational

4.140 For the assets that could be verified, the GGRP OHL will be visible within their setting. However, such visibility will not alter the key setting relationships of the assets or their understanding, appreciation, or experience.

Assessment of effect

Construction

4.141 There will be no effect to the heritage significance of any of the assets in this group as they will not experience any physical change.

Operation

4.142 There will be no effect to the heritage significance of any of the assets in this group as visibility of the GGRP will not change the contribution made by setting to their significance, or the understanding, appreciation, or experience of that significance.

Mitigation

4.143 No mitigation is required.

Residual construction effect

4.144 There will be no residual effect.

Cumulative operational effects

4.145 There will be no cumulative effects as the GGRP was not identified as giving rise to any cultural significance related setting change.

Assessment of effects to assets between the ILA/ Forest felling areas and 200m study area

4.146 This section comprises the assessment of operational setting effects only as all assets are outside the construction, ILA and felling areas. As stated previously, no mitigation is suggested for setting effects and so the predicted effect is the residual effect.

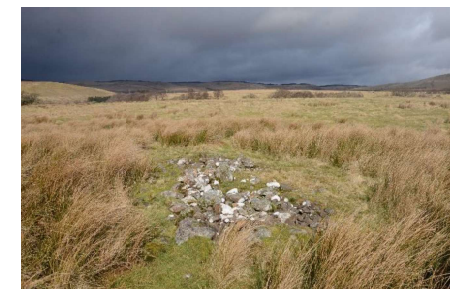
Rack Cairn [HER ref: MDG26119]

Description

4.147 This asset is a substantial stone cairn measuring 6m in diameter and 1m in height, with a central depression. It is sited on a low-rise within the Nith Valley, c. 150m south of the river and Glasgow and South Western Railway, near several

other minor water courses. It appears to be an isolated burial cairn, potentially with anaerobic conditions that would allow for the preservation of organic material. In terms of setting, it sits within an area of enclosures with wide reaching views of the valley, within which Sandy Knowe and Hare Hill Windfarms are already visible, alongside several OHL lines.

Figure 4.10: Rack Cairn (looking north)



Significance

4.148 The heritage significance of this asset is derived primarily from its scientific (evidential) value and ability to inform our understanding of prehistoric burial rites and beliefs. It also derives some lesser illustrative value from its above ground remains. In terms of setting, the monument would have once been a highly visible marker in the flat river valley and whilst this is no longer the case, this factor does remain appreciable given its open and undeveloped setting. It may also have been deliberately located with a visual/spatial relation to the surrounding waterways.

Importance

4.149 This asset is of medium (regional) importance given the rarity of the monument type having survived with above ground remains and the potential for paleoenvironmental remains.

Magnitude of operational change

4.150 This asset is located c.190m west of the ILA to Tower 34, meaning that part the GGRP, as it crosses the river and passes along the river valley, will be visible from and in combination with it.

4.151 The introduction of the OHL into the setting of the asset will not change the scientific value of the asset. In terms of the historical illustrative value of the asset the OHL towers will be taller and more visible, but the monument no longer retains its visibility due to the limited scale of its above ground remains and there are existing OHL poles in the area that do

not detract from its setting. The siting of the GGRP will also not interrupt the asset's key setting relationship. However, visibility of the GGRP will have a small effect on the openness of the surrounding landscape and the ability to appreciate the asset's monumental function within it. This setting effect will be minimal given the mass of the GGRP.

Assessment of operational effect

4.152 A small magnitude of change to an asset of medium significance will have a **minor** level of effect.

Cumulative operational effect

4.153 The cumulative schemes that could be experienced within the setting of this asset comprise the consented Glenmuckloch and Lethans Windfarms, or at least parts thereof, as well as the Sandy Knowe Extension. These will be visible in distant views but will not affect the appreciation of the asset's monumental functional. Therefore, no cumulative effect is anticipated.

Old Kelloside Enclosure [MGHER ref: MDG25507]

Description

4.154 This asset comprises the partially upstanding remains of a former farmstead located on a hillslope just north of Kello Water, a tributary of the Nith. The farmstead is denoted as 'Cullo' on Pont's map of 1596 as well as and Blaeu's map of 1654. It is then marked as 'Kelloside' on Roy's map of 1755. It appears to have gone out of use in the second half of the 20th century. This asset was originally an isolated farmstead with a rural setting; this has been encroached upon by the introduction of modern development at Kelloholm to the north of the farmstead. The wider largely rural landscape to the east, south and west includes some modern infrastructure, namely, roads, street lighting, wind turbines and OHL. Views of this wider landscape, to the south are limited by vegetation along the Kello Water.

Significance

4.155 The cultural significance of this asset is derived from a combination of its evidential and historical illustrative value. It retains sufficient rural setting to contribute to its legibility as a farmstead.

Importance

4.156 This asset is of medium importance.

Magnitude of operational change

4.157 This asset is located within 200m of access point C and the existing access associated with it. Increased use of

this road for construction vehicles would be temporary and reversible during construction, but would not result in a material change during operation.

4.158 Wider visibility of the OHL, which are located 1.7km to the SW of the asset, may be possible, especially if the trees along the River Nith were lost. However, the GGRP would be clearly read as a separate landscape feature, visibility of which would not change the illustrative or evidential value of the asset, or its experience. As such, there would be no change to the significance of the asset.

Assessment of operational effect

4.159 There will be no operational setting effect to the heritage significance of this asset, of the understanding, appreciation or experience thereof.

Cumulative operational effect

4.160 Turbines from Glenmuckloch and Lethans Windfarms will be visible within the setting of the asset, in combination with the GGRP. Visibility of this additional infrastructure will not affect the illustrative or evidential value of the asset, or its understanding, appreciation, or experience. As such, there will be no cumulative operational effect.

Lagrae [MDG26969]

Description

4.161 An extant cottage, which now functions as the site office for Buccleugh Quarry; an open cast mine, immediately northwest of the asset and visible in-combination with it. The asset is a 19th century stone built single-storey rectangular building, with a small extension to the rear (north). Its windows have been replaced with PVC ones, diminishing its historic character.

4.162 The building has a small L-shaped yard to the east and rear; another linear yard/ enclosure runs to the west of the house along the road. There is also a field bank that extends southwards from the other side of the road, which may be associated with the building. It is possible that a well and sheepfold, depicted on the 1896 OS map, to the north-northwest and northwest of the building were also associated with it. The sheepfold remains extant, but the well is an area that has since been quarried.

4.163 Historically the setting of this isolated building comprised the immediate enclosures/ yards around the house and a mix of uncultivated land, relatively large enclosures, commercial plantations and several small quarries. Today, the immediate enclosures/ yards survive but the rural character of the wider landscape has been significantly degraded and now includes a large open cast coal mine to the west, commercial

Enclosures [MDG27183 and MDG25713]

Description

4.169 There are two enclosures within the 200m study area. One is a square earthwork enclosure located within Polmeurhill Wood Plantation boundary; an area crossed by linear cuts that look like modern land drains. LiDAR imagery shows that the enclosure overlies these land drains, suggesting that it is of later date. The function of the enclosure is unknown. The second earthwork enclosure is heart-shaped and located at the southern end of the GGRP, next to small stream. It is of unknown function and date.

Significance

4.170 The heritage significance of both enclosures is derived primarily from their scientific value. The earthwork remains also have some limited illustrative value. Setting does not contribute to their significance, understanding, appreciation or experience.

Importance

4.171 Both enclosures are of unknown importance as their date and function is unclear

Magnitude of operational change

4.172 The GGRP will be visible in the setting of both assets. However, as setting does not contribute to the heritage significance of these two assets there will be no change to their significance.

Assessment of operational effect

4.173 There will be no change or effect to the cultural significance of these assets.

Cumulative operational effect

4.174 There will be no cumulative change or effects to the cultural significance of these assets.

Sheepfold and shelters [HER refs: MDG26120 and MDG27046; LUC 3]

Description

4.175 There are multiple extant examples as well as sites of sheepfolds and shelters recorded within the 200m study area. Many do not yet have individual HER references and have been identified from review of the 1896 OS map.

Significance

4.176 Where extant these assets will have some illustrative value of historic pastoral practices, otherwise their principal interest will be of scientific value. Those that do survive will have a historical and functional association with the surrounding enclosures and grazing land.

Importance

4.177 These features will be of local interest for their ability to inform our understanding of pastoral practices.

Magnitude of operational change

4.178 The GGRP does not physically interact with any of these assets, but it will be visible in the setting of these assets to varying extents.

Assessment of operational effect

4.179 Visibility of the GGRP will not affect the evidential value of any of those which survive as buried remains. Nor will it alter or diminish the illustrative value of those which survive above ground.

Cumulative operational effect

4.180 There will be no cumulative change or effects to the heritage significance of this asset.

Assessment of assets in the 3km study area

4.181 Again, this section comprises the assessment of operational setting effects only as all assets are outwith the construction, ILA and felling areas. As stated previously, no mitigation is suggested for setting effects and so the predicted effect is the residual effect.

St Connel's Church and churchyard [HES ref: SM13747]

Description

4.182 This monument comprises the remains of an early medieval parish church and church yard, dedicated to St Connel. Only the foundations of the church remain, but these are visible at ground level having been part excavated in 1929. The excavations revealed a rectangular building orientated east to west and measuring 19.8m x 5.4m, with rough dressed masonry standing to a maximum height of 1.3m. The walls, although not uncovered, are thought to measure c.1m thick. A low wall divides the chancel (to the

east) containing the principal altar from the nave (to the west), which provided accommodation for the parishioners. The entrance, which has steps leading down into the church, is in the south side, 4m from the west end. A drystone wall bounds a cemetery surrounding the church, in which several grave markers of 18th century date are extant.

4.183 The church reportedly remained in use until it was replaced by a new Church within Kirkconnel in 1729. Finds from the site include carved stone, including fragments of cross-shafts, of 9th to 15th century in date. Some of these early carved stones are on display in a shelter within the graveyard, others have reportedly been taken to Dumfries Museum, or removed to the new church. This assemblage of ecclesiastical art potentially indicates that there was a religious association with the site several centuries before the foundation of the extant church. Equally, it cannot be ruled out that at least some of the carved stones were moved to the church from elsewhere.

4.184 Today, a cairn stands at the western end of the church foundations, it was erected by the miners that excavated the site under the instruction of the local minister during the General Strike of 1926. The church is referenced in a poem called 'The Covenanter's Tryst' by the local poet Alexander Anderson, or 'Surfaceman'¹³ (1845-1909) is one of several monuments in the area to be associated with St Connel. Other features include a nearby spring/ well, stone cross, and a possible (but tentative) 'cup-marked' stone.

4.185 The spring – known as 'St Connel's well' – is sited a short distance uphill from the monument and was reportedly where the saint conducted baptisms. It is now marked by a relief sculpture of the saint. The stone cross [HER ref: MDG76] is sited on the hillslope c.2.4km to the northwest of the monument. It was erected in 1880 by the Duke of Buccleuch to mark the grave of St Connel, which is marked in that location on the 1864 1" OS map. From the cross it is possible to view the parish churches of Kirkconnel, Sanquhar and Kirkbride – all associated with St. Connel. The 'cupped-stone' is located downhill from the cross at NGR NS7044715674. It is said to mark the site where St. Connel encountered St. Kentigern (Mungo) and became his disciple.

4.186 The remains of the church of St Connel are situated on a plateau at the foot of Kirkland Hill (at approximately 240mOD) 2.9km to the north of Kirkconnel, just west of the confluence of two burns that feed the River Nith. From the site there are wide reaching views to the southeast through to west, with views to the northwest through to east curtailed by the Nith Valley hill ridge. The long-ranging views take in the

surrounding landscape, which is characterised by a mix of rough grazing and agricultural land. The latter is primarily defined by rectilinear fields and farms derived from agricultural improvements since the 1700s, such as the category C listed 19th century Kirkland Farm 0.6km to the south, and Vennel Farm, 0.16km to the southeast. However, there are potentially older medieval farms evident at Glenwharrie and Old Kirkland and the buried/ earthwork remains of medieval agricultural settlements are present in the vicinity of the Church, showing that it was once the focus of settlement.

4.187 A historic routeway (possibly Roman in origin) passes through the valley to the north of the Church and to the south, the River Nith itself would have been an important transport route. Its position along these routeways would have strengthened the use of the site as a possible ecclesiastical base to help spread Christianity and for general ease of access for pilgrims and worshippers.

4.188 To the south of the site, there are several areas of plantation. Although plantation is generally of modern date and derived from the operation of the Forestry Commission (now Forestry and Land Scotland), some have their origins in private estate plantings of the 18th and 19th centuries, and this may be the case at Kirkland where the earliest OS maps delineate areas of plantation. To the southeast there is also a large open cast quarry site, and two wind turbines. Further turbines are visible to south, at Sandy Knowe which is currently partially built out. Overhead lines (OHL) are also visible in the landscape to the east of the site near Vennel Farm and a telephone mast is located to the northeast on top of Todholes Hill.

Figure 4.11: View from St Connel's looking south towards the mid to southern end of the GGRP (with Sandy Knowe Wind farm visible)



Figure 4.12: View from St Connel's looking southwest towards the northern end of the GGRP and proposed

Location of the substation (with the Miners' cairn visible in the foreground)



Significance

4.189 The heritage significance of this asset is derived primarily from a combination of its historic and scientific value as one of the earliest medieval religious sites in the region. More specifically, the upstanding remains have historical illustrative value – showing what the site was like – while those parts of the monument not yet investigated, have the potential to inform our understanding of the development of medieval and post-medieval ecclesiastical architecture, church organisation, and religious practices in southwest Scotland. The monument also has some social value given its association with St Connel and the development of the Christian faith in Scotland. The Miner's Cairn is also evidence that the church, even when ruinous and out of use, was still a focal point for the local community – with the excavations conducted by unemployed miners during the General Strike of 1926 and financed by the local minister.

4.190 In terms of setting, the church has an important historical, functional, and spatial relationship with its churchyard that contributes to both its scientific and historical value by both illustrating burial practice at the site and having with the ability to further inform our understanding of that practice through scientific investigation. The modern cairn also has a historical link to the monument and helps to illustrate its more recent history, as well as providing a link to the mining history of the area and its association with local poet, Alexander Anderson.

4.191 In the wider landscape, the monument has historical associative and functional relationships with St Connel's spring, cross and stone, and the former settlement and transport routes that once existed around the church. However, these relationships are largely contextual as the ability to visually understand these relationships is relatively

¹³ A reference to his employment on the Glasgow and South-Western Railway as a 'surfaceman' or layer of rails. [Scottish Poetry Library website, accessed December 2022.](https://www.scottishpoetrylibrary.org.uk/entry/alexander-anderson-surfaceman)

limited given that not much survives at ground level and the screening of modern plantation cover.

4.192 Finally, what remains of the open rural setting of the monument aids in understanding its history and function as a rural parish church. However, the landscape has evolved and changed in several important ways, with the introduction of modern plantation, open-cast mines, OHL, wind farms and the alteration of enclosures, meaning that the contribution made in the last respect is limited. It should be noted that at present, the closest wind farms to the asset are located on the southern side of the Nith valley, but Glenmuckloch and Lethans windfarms are being built on the northern side, approximately 1.6km to the northeast of the asset.

Importance

4.193 This asset is nationally important as a good example of a multi-period ecclesiastical site.

Magnitude of operational change

4.194 The remains of St Connel's Church are located c. 1.2km northeast of the northern end of the proposed OHL route, where the new substation is proposed. The monument sits at a higher elevation within the Nith valley than the proposed OHL, however, intervening plantation between the farms at Glenwharrie and Kirkland currently screen much of the OHL route, albeit not the substation location. As managed forest, its screening effect cannot be relied on in perpetuity and it is liable to successive removal and replanting, which could result in the visibility of the OHL in medium to long distance views from and in-conjunction with the asset. In a worst-case scenario, the bare earth ZTV suggests that between 25 and 30 towers would be visible in conjunction with the Glenmuckloch substation (see Figure 10.2a-c in the EIAR). However, it is unlikely that all tree cover would be lost simultaneously, and any loss of cover would likely be relatively short-term given the forestry cycle.

4.195 Due to the height and lower positioning of the GGRP within the landscape it will be much less prominent than the closest windfarms – Glenmuckloch, Sandy Knowe and Lethans - which include several turbines that appear on the skyline. The substation and first few towers will be the most discernible features of the GGRP in the setting of the asset (in a bare earth scenario) as these will be the closest to the monument, and whilst there are wind turbines visible behind them, they are at a much greater distance and less prominent. In contrast the next 15 towers are spread out horizontally across the valley at ever increasing distance from the monument but with larger wind turbines behind them at closer range making them more prominent. A change in direction means that the GGRP towers then cluster vertically in the view south from monument against a backdrop of multiple wind

turbines most of which are larger and more prominent than the GGRP. Against this existing backdrop of infrastructure, the magnitude of change to the setting of the asset would be small.

Assessment of operational effect

4.196 Visibility of the GGRP would add to the amount of energy infrastructure perceived in the setting of St Connel's Church and Churchyard, which in combination with the modern plantation present would diminish the remaining historic rural character of the area and the limited contribution that makes to understanding and appreciating the church as a former rural parish church. In contrast, visibility of the GGRP in combination with the remains of the church and churchyard will not change the scientific value of the buried archaeological remains, nor would it effect its historical associative and social value. The asset's key illustrative value in terms of its physical remains and key elements of setting that contribute to its significance will also not be changed. Given the small scale of this change to an aspect of the asset's setting that is already much changed and makes only a limited contribution to its significance the effect is considered to be **minor**.

Cumulative operational effect

4.197 Within the 3km study area there are two consented windfarms, Glenmuckloch and Lethans windfarms, which will be built on the northern valley side, approximately 1.6km to the northeast of the asset. Applications have also been submitted, but have yet to be determined, to extend Sandy Knowe and Lethans Windfarms. The already consented windfarms will result in much more noticeable change to the setting of the asset, than the introduction of the GGRP as they will be visible along the hill line to the north of the asset. Although located slightly further away than the closest elements of the GGRP, they will be more visible due to their greater height, colour and positioning against the skyline. The extension to Lethans is unlikely to be visible from the asset due to intervening topography but the extension to Sandy Knowe Wind Farm would be visually apparent in views to the southwest, as they are slightly larger turbines and extend the horizontal spread of the windfarm west. That said, this extension is against a backdrop of existing wind turbines, and they would be read as part of the extensive array of existing infrastructure visible in views in that direction. In relation to the cultural significance of the asset, this cumulative change will remain small because the of limited contribution that its already altered rural setting makes to its illustrative value and experience, its key values being in its physical form or other setting relationships as discussed above. In EIA terms, the scale of cumulative effect to the cultural significance of the asset would be **minor**.

Kirkland Farmhouse [HES ref: LB10239]

Description

4.198 This category C listed building is an earlier to mid-19th century farmhouse. The house is 2-storeys tall and built of coursed and squared rubble with ashlar dressings. The key elevations are to the west and the south, with the steading located to the north. The courtyard steading is not listed, but it is historical albeit with some modern roofing and alterations. Historical maps show two square enclosed gardens to the front of the farmstead, although not as clear, these appear to be broadly traceable on the ground today.

4.199 A road approaches the farmstead from the south, from which a driveway heads north up to the south and west elevations. This driveway roughly aligns with the historical access route shown on maps, which then continued north into the steading and agricultural landscape beyond. Today, a modern continuation to the road continues past the western side of the farmstead, albeit separated by a modern woodland shelterbelt of broadleaved trees, and adjoins the historical access to the rear. Other modern woodland plantation has encroached on the setting of the asset, to the east and northwest. The shelterbelt and plantations largely enclose the farmstead and prevent any wide-reaching views. Only the north-eastern side of the steading has any potential for being viewed and appreciated in its historical agricultural setting and even then, the addition of modern agricultural barns will reduce this possibility. Additional plantation lies between that surrounding the farmstead and the GGRP.

Significance

4.200 The heritage significance of this asset is derived primarily from its historical illustrative and aesthetic (architectural) value as a good example of a post-improvement farmstead. The steading may not be covered by the listing but is potentially an important part of the buildings setting as it contributes to the legibility of its function. At present the wider agricultural landscape cannot be visually appreciated in combination with the asset due to intervening vegetation and modern built development it therefore does not contribute to its significance. However, this latter aspect of its setting may change over time depending on the felling/ regrowing of the surrounding plantation.

Importance

4.201 This asset is of high importance as designated asset.

Magnitude of operational change

4.202 The GGRP, specifically the substation and initial stretch of towers, will be located 1km to the west of this asset. With the current level of plantation cover it will not be possible

to perceive the GGRP in combination with or from the asset. It is unlikely that all the intervening plantations to the west of the farmstead would be removed in one and the shelterbelt to the west of the house should remain given its function as a windbreak. The presence of the shelterbelt should screen the GGRP from view even if the surrounding forestry is felled. Consequently, there will be no change to the setting of the asset.

Assessment of operational effect

4.203 There will be no effect to the heritage significance of Kirkland Farmhouse as a result of the presence of the GGRP as it would not be experienced within its setting.

Cumulative operational effect

4.204 There will be no cumulative effects to the heritage significance of this asset as no cumulative schemes will be visible in combination with the GGRP from or in-combination with the asset.

Knowe Farmhouse [HES ref: LB10240]

Description

4.205 This listed building is an earlier 19th century two-storey three-bay farmhouse built of rubble stone with ashlar dressings. The front elevation faces southeast and has a central gabled (ashlar) porch. Also listed area the asymmetrical ranges to rear (west) set out around a cobbled courtyard. These in turn are surrounded by several large-scale modern agricultural structures. To the front of the house is a large, enclosed garden with some deciduous tree cover. This layout remains much as it was on the first edition OS map, save that addition of the modern agricultural buildings which have replaced a series of enclosures.

4.206 The house is sited on a small plateau within the Nith Valley, c. 300m north of the river, with the rising valley topography framing any open views. The farmstead is located between a railway line, which passes east to west just 20m south of the farmstead at a lower ground level, and a road immediately to the north, which similarly passes east to west. Whilst the rear of the farmstead is relatively enclosed by the modern agricultural buildings it is possible to view the front elevation of the farmhouse when approaching from the southeast and from this perspective the house can be appreciated in its agricultural context, although the steading is not visible. Whilst its agricultural setting can be appreciated it does include an array of energy infrastructure (including existing OHL lines passing either side of the house), the railway and the modern forest plantations.

Significance

4.207 The heritage significance of this asset is derived primarily from its historical illustrative and aesthetic (architectural) value as a good example of an improvement era farmstead with a particularly fine steading. The farmstead has an important functional and historical relationship with the surrounding agricultural landscape where it can be appreciated in combination with the asset, which is mainly on the key approach or from the east/ southeast as the historic steading is otherwise surrounded by modern agricultural buildings.

Importance

4.208 This asset is of high importance, as reflected by its designation.

Magnitude of operational change

4.209 The GGRP is located 0.5km to the east of the farmstead and will pass behind it, north to south. The bare earth ZTV suggests a high level of visibility directly from the listed buildings, but this is unlikely given the orientation of the farmhouse and the fact that there are modern agricultural buildings surrounding the steading to the rear. However, in combination views of a small number of towers and the farmhouse are possible. In such views, the towers will be read as a separate distant feature visibility of which will be relatively insignificant in comparison to the existing OHL in front of farmstead.

4.210 Visibility of the GGRP in combination with the farmhouse will fundamentally alter its key illustrative or architectural interest. Visibility of the GGRP in combination with the farmhouse will not fundamentally alter its key illustrative or architectural interest. However, it will perceptibly add to the relatively high level of modern energy infrastructure already visible in-combination with the asset, diminishing the contribution of its remaining rural setting that is visible in long distance views (closer views already being affected by the existing OHL). As per the criteria used herein this magnitude of change will be small.

Assessment of operational effect

4.211 There are existing OHL, supported on wood poles, that are more prominent in the views of the farmhouse elevation than the GGRP will be. Therefore, the addition of the GGRP will have a barely noticeable effect on the contribution that the asset's rural setting makes to its illustrative value. This setting contribution is important, but its alteration in this way will not affect the legibility of the asset or its appreciation. Therefore, the level of effect is **minor**.

Cumulative operational effects

4.212 The Glenmuckloch and Lethans windfarm turbines will be visible in-combination with both the GGRP OHL and the farmhouse, in longer range views to the northwest. These two windfarms will be read as a single span of turbines that are clearly set back from the farmhouse along the distant hill line. The Sandy Knowe extension will also likely be visible in-combination with the GGRP when viewing the farmhouse on the approach from the east/ southeast. Although slightly larger and increasing the horizontal spread of the Sandy Knowe layout, the additional turbines will be read as part of the existing spread of wind turbines visible along the southern side of the Nith Valley Hill line. These windfarms will noticeably increase the amount of energy infrastructure visible within the setting of the asset and will be more prominent than the GGRP due to their scale, colour, and skyline siting. The change wrought by the windfarms will be greater than that effected by the visibility of the GGRP alone, and the contribution that the GGRP makes cumulatively to that change will be negligible. The fact also remains that there is existing OHL in the foreground of the key views that allow for the appreciation of the asset's cultural significance. Therefore, whilst there will cumulatively be a greater level of change to the rural character of the landscape, the level of change remains classifiable as a small. This change will again be to an aspect of the asset's setting that makes only a limited contribution to its cultural significance, as its more immediate rural setting is more important. The effect of this change will be **minor**.

Monitoring

4.213 It is anticipated that appropriate archaeological monitoring will be secured by condition on an eventual consent.

4.214 The Applicant anticipates the provision of monitoring and supervision through the provision of an Archaeological Clerk of Works (ACoW). The ACoW would be on site to supervise the installation of protection measures for cultural heritage assets within the construction corridor, particularly those excluded from the ILA, and the protective matting for the crossing of the Deil's Dyke. They will also supervise ground-breaking works in areas of elevated archaeological potential, and be available on a call-off basis to advise on any issues during construction, and confirm the acceptability of any repositioning of infrastructure.

Chapter 5 Summary

5.1 This assessment has reviewed the likely interaction between the GGRP and designated heritage assets within a 3km study area and non-designated assets within a 200m study area.

5.2 It has identified that most physical effects to the significance of heritage assets can be avoided by design and good practice measures. No additional mitigation is recommended beyond dry stone wall reinstatement and monitoring of ground intrusive works across the areas of archaeological potential identified within the Nith Valley, and supervision of protection works to the Deil's Dyke. The Applicant has undertaken to provide an Archaeological Clerk of Works, which would generally be beyond the requirements of the levels of effect and archaeological potential identified, in recognition of the benefits of on-site advice for contractors.

5.3 Minor operational effects have been identified as a result of setting change. The most notable of these will be to the scheduled remains of St Connel's Church and churchyard and the listed Knowe Farmhouse. The other three assets experiencing minor effects – Rack Farmhouse, Crockroy Farmhouse and Rack Cairn – are all non-designated.