

Denny to Wishaw Network Upgrade

Environmental Impact Assessment Report

Volume 3 Appendices

Appendix 6.3 Landscape Assessment



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1.1 Introduction

- 1.1.1 This appendix should be read in conjunction with Chapter 6, Appendix 6.2 and Appendix 6.1 and is accompanied by the following figures:
- Figure 6.4: Landscape Designations and Zone of Theoretical Visibility;
 - Figure 6.5: Landscape Character Types and Zone of Theoretical Visibility; and
 - Figure 6.6: Local Landscape Character Areas/Units and Zone of Theoretical Visibility.
- 1.1.2 All landscape and visual mitigation measures are embedded and described in Chapter 3, Figure 6.9: Outline Landscape Mitigation Plan – Bonnybridge Substation Extension and Figure 6.10: Outline Landscape Mitigation Plan – Cumbernauld Substation Extension.

1.2 Landscape Assessment

- 1.2.1 This appendix provides a detailed assessment of the likely significance of effects on landscape receptors at construction and operation of the Project. The assessment is set out in the following tables.

Table 1.2.1 Landscape Designations.

- Table 1.2.2 LCT 151 Lowland Plateaux.
- Table 1.2.3 LCT 152 Lowland River Valleys.
- Table 1.2.4 LCT 201 Plateau Farmland.

- Table 1.2.5 LCT 203 Urban Fringe Farmland.
- Table 1.2.6 LCT 213 Plateau Moorlands.

1.2.2 Approximate distances are given below from each of the landscape receptors to the permanent elements of the Project. The approximate distances are given as the closest part of the receptor to the closest section of the specific part of the Project stated.

1.2.3 It is acknowledged that part of the landscape within the Study Area comprises plantation forestry at different stages of felling. The landscape assessment assumes that there would be no change to this management practice.

Construction Timescale Assumptions

1.2.4 The construction programme for the Project including specific timescales is set out within Chapter 4: Project Description. Subject to gaining consent, construction works are expected to commence in January 2027 and be functionally completed by the end of February 2030, representing an overall construction duration of approximately 37 months..

Table 1.2.1 Landscape Designations

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
The Slamannan Plateau / Avon Valley Local Landscape Area		
Distance to the Project: New Build Overhead Line (3.2 km) Bonnybridge Substation (6.2 km) Cumbernauld Substation (13.8 km) Value: High Susceptibility: High The western part of the LLA is characterised by localised variations and varied land use, offering potential opportunities to accommodate the Project. The plateau topography, relative openness and connection with the wider landscape, incorporating the most intact and least developed parts of the	Construction During the construction phase, plant and activity associated with the Project would be wholly outside the LLA. Consequently, effects would be indirect on the LLA only. Indirect effects resulting from the construction activities associated with the temporary works for the New Build Overhead Line and CB Route removal are likely to be perceptible across the higher ground of the LLA. These activities would be at a distance and in the context of existing energy infrastructure including overhead lines and towers and wind turbines, and movement of vehicles along the road network, which reduces the perceived degree of contrast and influence on the rural character of the LLA. As no direct change is involved, many of the key characteristics of the LLA, including the rolling plateau with localised variations and the varied land use would remain unaffected. Based on the ZTV coverage, the indirect influence arising from construction activities associated with the Cumbernauld and Bonnybridge Substation Extension would not be perceptible. The geographic extent of influence of construction lighting across the LLA would be limited, with only localised pockets being perceptible. The construction lighting would be perceived in the context of existing lighting associated with surrounding settlements, thereby reducing the perceived contrast. Overall, the effects on the LLA would be localised and indirect, as the Project is wholly situated outside the LLA. The construction activities would represent limited contrast and a	Minor adverse (not significant)

local landscape and relationship as being an important aspect of the setting of nearby settlements increases the susceptibility.

limited scale of change due to the distance and existing context within the receiving landscape. The duration of change is anticipated to be short-term.

Magnitude of effect: Low

Landscape Sensitivity:
High

Taking into the account value judgements and susceptibility to change, overall sensitivity of the LLA is considered to be high.

Operational (Year 1)

At operation Year 1, there would continue to be no direct influence of the Project on the LLA and effects would be indirect only.

The introduction of the New Build Overhead Line in the wider landscape would be perceptible however the degree of contrast would be limited due to the existing context of energy infrastructure including overhead lines and towers and wind turbines also in the surrounding landscape. The influence would likely be increased compared to the existing context due to the new line to the south of Cumbernauld, however this would be limited in part due to increased intervening vegetation between the LLA and this part of the New Build Overhead Line and would remain at a distance. As no direct change is involved, many of the key characteristics of the LLA, including the rolling plateau with localised variations and the varied land use would continue to remain unaffected.

Overall, the indirect effects on the setting of the LLA in terms of scale of change would be limited due to distance from the Project, context of the receiving landscape and intervening vegetation cover. The duration of change would be long-term.

Magnitude of effect: Low

Minor adverse
(not significant)

Operational (Year 15)

The effects on this LLA at Year 15 are assessed as remaining consistent with the Year 1 assessment as no mitigation planting proposed would be perceptible.

Minor adverse
(not significant)

Magnitude of effect: Low

Table 1.2.2 LCT 151 Lowland Plateaux - Central

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Distance to the Project: New Build Overhead Line (within the LCT) Bonnybridge Substation (1.3 km) Cumbernauld Substation (2.2 km) Value: Medium Susceptibility: Low Blocks of coniferous forest, and the rolling landscape are features which provide opportunities to use existing vegetation and landform as a backdrop. The presence of harsh, geometric lines created by forestry plantations and existing linear gaps for access further lessens the susceptibility. External views toward	Construction During construction, plant and activity associated with the New Build Overhead Line, the dismantling and removal of CB Route, and the partial undergrounding of the AA Route would be directly present within the LCT. This would include, in addition to the core construction activities, works to provide access to the towers and overhead line (i.e. WB-B15, WB-B16, WB-B18, WB-B19, WB-B20, CB-B01-CB-B06) (Figure 4.2 Project Works Plan), localised earthworks, erection of temporary overhead line towers, and movement of construction materials along temporary and existing access tracks. Whilst contained in some places, the activity would extend across a considerable portion of the western part of the LCT and this would influence the perceptual key characteristic of external views across the plateau landscape. The construction works would result in localised (New Build Overhead Line (WB031-WB050), the CB Route (CB019-CB034), and the AA Route (AA005-AA010) and temporary displacement of pockets of open moorland and semi-improved grassland land cover, which contribute to the LCT's key characteristics. However, these changes are unlikely to alter the overall vegetation pattern within the LCT, given the presence of existing harsh forestry lines. Activities would also appear less contrasting due to the influence of existing forestry operations and vehicle movement along the B816. During construction, plant and activity associated with Bonnybridge and Cumbernauld Substation Extension would be located wholly outside the LCT, resulting in no direct effects. Any indirect changes on the setting of the LCT, associated with the New Build Overhead Line and the Bonnybridge Substation Extension, temporary construction compounds and temporary access tracks, would be perceived in small parts of the LCT. The works would be visible at a distance in places, affecting the perceptual key characteristic of external views, albeit within the context of existing forestry plantation activity which lessens the degree of contrast. Construction noise would be noticeable in a localised area; however, this would occur within the context of existing traffic noise from the local road network.	Moderate adverse (significant)

neighbouring hills are likely to be sensitive to tall structures, however this would be in the context of existing vertical elements including wind turbines and overhead towers. The presence of road corridors, and visibility of remnant derelict land, motorway and corridors, overhead lines and industrial sites from the urban fringe of Falkirk give local context to the Project, thereby, lessening the susceptibility.	Indirect effects on the LCT associated with the Cumbernauld Substation Extension would be perceptible across a small part of the western extent of the LCT during construction. The perceptual key characteristic of external views towards the works would be influenced by the existing settlement edge of Cumbernauld, which would lessen the degree of contrast. External views would also be experienced within a context of strong, geometric lines resulting from forestry operations, further reducing perceived contrast. This effect would be further diminished when perceived alongside the operational Cumbernauld Substation, areas of remnant derelict land, and existing infrastructure and industrial features. Construction noise and increased vehicle movements associated with construction activities would occur along ancillary roads leading to Forest Road, where the existing Cumbernauld Substation is located. However, these changes would take place within the context of existing traffic along Forest Road and forestry operations within the LCT.	
The LCT overlaps with Local Landscape Area (LLCA) 3(ii) Darnrig/Gardrum Plateau Moorland and LLCA 3(iii) Castlecary/Shieldhill Plateau Farmland. In LLCA 3(ii), uncharacteristic woodland copses and shelterbelts compromise the intrinsic openness of the moorland, providing a	The extent of the influence of construction lighting would be reduced due to the existing undulating landform and vegetation cover within the LCT and degree of contrast reduced due to context of existing settlements in the surrounding landscape. Overall, there would be a localised direct and indirect effects on the LCT associated with the construction works. This would include changes such as the introduction of construction plant and activity, and the displacement of vegetation to facilitate construction works. The degree of influence would be reduced due to the undulating and rolling landform, and the presence of the local road network but would remain across an extensive area within the LCT. The duration of change would be short-term. Magnitude of effect: Medium	
	Operational (Year 1) At operation Year 1, the Project would result in permanent new towers and the permanent removal of vegetation along the New Build Overhead Line (WB031–WB050), including areas of open moorland and semi-improved grassland associated with tower platforms, as well as some blocks of coniferous woodland associated with wayleaves. This represents a direct effect on the key characteristic features of the LCT. However, the loss of grassland vegetation would be perceived in the context of the removal	Minor adverse (not significant)

degree of visual containment that reduces susceptibility to new structures. In LLCA 3(iii), the rectilinear fields and existing pylons indicate human-influenced landscape that reduces susceptibility. Landscape Sensitivity: Medium Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be medium.	of the existing CB Route, where grassland is expected to naturally regain coverage over time, thereby lessening the perceived change. The permanent removal of coniferous woodland would remain a direct effect; however, when perceived in the context of existing forestry operations and the harsh, geometric lines of existing forestry plantations, the perceived change would be reduced. The New Build Overhead Line would be perceptible across the more open moorland and semi-improved grassland, but the overall extent of influence would be perceived within the context of the removal of the CB Route and partial undergrounding of the AA Route, which is located to the south but largely parallel to the new line. Two new cable sealing end towers would be present in the LCT (AA006CSE and AA009CSE) however the extent of influence would be limited due to surrounding vegetation and this is balanced with the removal of the CB Route and AA Route undergrounding in the vicinity. The alteration to the wider perceptual key characteristic of external views would introduce new vertical infrastructure however the degree of contrast is reduced due to existing features including wind turbines and overhead towers and the degree of openness of such external views would typically not be affected. The Project would not result in material changes to the undulating and rolling plateau landform, which is a key existing characteristic that would remain unaffected. The Bonnybridge and Cumbernauld Substations would be located outside the LCT and would therefore result in no direct effects on the LCT. Indirect effects from the Bonnybridge Substation Extension would be perceptible in small areas within the LCT limited by intervening vegetation. This perception is not considered to alter any of the key characteristics of the LCT given the context in which it lies as an extension to an existing substation and the distance. For indirect effects associated with the Cumbernauld Substation Extension, although the proposed infrastructure would be larger in extent and height than the existing substation, visibility would be highly localised and limited due to distance and screening by intervening mature vegetation. Any perception of the new built form would be experienced within the context of the settlement edge of Cumbernauld, the existing substation, and associated energy infrastructure, including overhead lines and towers. Vegetation removal would be limited and perceptible only at distance and would not alter the overall vegetation pattern within the LCT. Harsh, geometric forestry patterns and the operational substation would further reduce perceived contrast.
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Indirect effects from lighting associated with temporary maintenance and security/perimeter lighting of the Substation Extensions would be perceptible from small parts of the LCT, which would be similar in nature to existing localised activities and thus less intrusive. There would also be effects associated with bird diverters present on the section of overhead line between towers WB030-WB037 which would have reflective properties at low light and would have localised effect on the undeveloped character of the LCT, albeit contained in terms of geographical influence due to surrounding forestry plantation.

Overall, there would be a direct effect on the LCT due to the removal of coniferous woodland and new towers. The perception of change would be reduced due to the context of the removed CB Route and the context of existing forestry operations and the harsh, geometric lines of existing forestry woodland and the existing perceptual key characteristic of external views containing vertical features. The retention of the key undulating and rolling landform would aid in containing both direct and indirect effects. The duration of change would be long-term.

Magnitude of effect: Low

Operational (Year 15)

The effects on this LCT at Year 15 are assessed as remaining consistent with the Year 1 assessment as no mitigation planting proposed would be perceptible. The duration of change would be long-term.

Minor
adverse
(not
significant)

Magnitude of effect: Low

Table 1.2.3 LCT 152 Lowland River Valleys - Central

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Distance to the Project: New Build Overhead Line (within the LCT) Bonnybridge Substation (within the LCT) Cumbernauld Substation (3.9km) Value: Medium	Construction During construction, plant and activity associated with the New Build Overhead Line, the dismantling and removal of CB Route, the undergrounding of part of the AA Route near to Bonnybridge Substation and the Bonnybridge Substation Extension would be directly present within the LCT. This would include, in addition to the core construction activities, works to provide access to the Bonnybridge Substation Extension, towers and overhead line (i.e. WB-B25, WB-B26), localised earthworks, erection of temporary overhead line towers, and movement of construction materials along temporary and existing access tracks. The works would be perceptible from the perceptual key characteristic of views along the river valley in localised areas. Visibility of derelict land, infrastructure and conurbation provides local context to further reduce the contrast of the construction activities associated with the Project.	Moderate adverse (significant)
Susceptibility: Low Vegetation cover and topographic changes provide opportunities to use existing vegetation and landform as a backdrop or to screen new developments. Derelict land, motorway and road corridors, power lines, wind farms and industrial sites from the urban fringe further provides local context to	Any indirect changes on the setting of the LCT, associated with the temporary construction compounds and temporary access tracks, would be perceived in small parts of the LCT. The works would be visible at a distance, affecting the perceptual key characteristic of views within the LCT across flat valley floors, albeit the presence of varying topography and a high proportion of tree cover generally contains views thereby, reducing the scale of perceived change. For the Bonnybridge Substation Extension and the New Build Overhead Line, construction noise would be noticeable within a localised area; however, this would occur within the context of existing traffic noise from the A803 and ongoing forestry operations, which would reduce the perceived effect. The extent of the influence of construction lighting would be reduced due to the existing vegetation cover within the LCT and context of urban areas. For Cumbernauld Substation Extension, perceived contrast would be further reduced when experienced within the context of the settlement edge of Cumbernauld.	

the Project and reduces perceptual qualities, thereby further lessening susceptibility. The smaller scale landscape and defined river corridors increase the susceptibility somewhat.	During construction, plant and activities associated with the Cumbernauld Substation Extension would be located entirely outside the LCT, resulting in no direct effects. The LCT is located at distance, and intervisibility with the Cumbernauld Substation Extension works would be considerably screened by topography and existing woodlands. Therefore, indirect effects are unlikely to be perceptible.
The LCT overlaps with LLCA 4(iii) Bonny Water and 4(iv) Lower Carron/Bonny Water. LLCA 4(iii) is characterised by an open, medium-large scale valley with limited opportunities to provide screening or a backdrop to the Project, although as part of the urban conurbation with roadside settlements, susceptibility is lessened. LLCA 4(iv) is characterised by urban influences associated with infrastructure and development impacting on the openness of the valley, with numerous power lines and pylons branching out from the	Overall, there would be a localised direct effect on the LCT associated with the specific tower and access locations and Bonnybridge Substation Extension. This would include changes due to the introduction of construction plant and activity. The extent of influence would be reduced due to varying topography and vegetation cover, which contain construction plant and activities, but would partially include influencing the perceptual key characteristic of views along the river valley. The presence of the A803 already introduces movement and activity in the landscape, which reduces the degree of contrast. The duration of change would be short-term. Magnitude of effect: Medium
	Operational (Year 1) At operation Year 1, there would be the addition of new towers along the New Build Overhead Line (WB051–WB059) balanced by the total removal of the CB Route and partial undergrounding of the AA route and the permanent addition to Bonnybridge Substation. The degree of change associated with the permanent vegetation loss associated with localised removal of some roadside and hedgerow trees, and semi-natural woodland, some of which are conifers that are detracting features, within the Project Boundary in the open field west of the existing substation, along the New Build Overhead Line (WB051–WB059), the CB Route (CB035–CB039, CB024–CB028, CB032–CB034), and the AA Route (AA001–AA004, AA001CSE, AA001T, AA001B) would be lessened by existing influence of infrastructure on vegetation patterns in the local landscape, including overhead line wayleaves. There would be a new sealing end tower (AA011CSE) present in the LCT however this would be within the context of existing towers and balanced with the partial undergrounding of the AA Route. The New Build Overhead Line would be perceptible from the perceptual key characteristic of views along the river valley in localised areas, which the influence is reduced in part due to existing overhead line and towers visible elsewhere along the valley and the definition of the corridor in terms of the surrounding

Minor
adverse
(not
significant)

electricity network. These features provide local context to the Project, which reduces susceptibility. Landscape Sensitivity: Medium Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be medium.	topography would not be altered. Otherwise, the extent of influence of the permanent works, aside from the upper extents of overhead towers which already feature in the landscape, would be relatively limited in the wider LCT due to considerable surrounding vegetation cover offering containment. The characteristics and quality of the landscape surrounding the Antonine Wall and Roughcastle Roman Fort would be largely unchanged due to the sensitive routeing. The characteristic canals within the LCT, including the Forth and Clyde Canal, would be largely unaffected due the discrete crossing into areas of woodland. There would be a permanent alteration to earthworks associated with the Bonnybridge Substation Extension. However, the alteration would be highly localised and in the context of existing platforms of the existing substation immediately to the east, thereby reducing the degree of contrast. Lighting associated with temporary maintenance and security/perimeter lighting for the Bonnybridge Substation Extension would be perceptible from parts of the LCT, which would be similar in nature to existing localised activities and thus less intrusive. Proposed shrub and woodland mitigation planting along the southern and north-western boundaries associated with the Bonnybridge Substation Extension would be barely perceptible in Year 1 of operation. Deer fencing would be erected for the woodland planting; however, this would not be dissimilar to fencing present in the existing landscape and is not considered to have an adverse effect on the landscape character. The completed Cumbernauld Substation Extension works would remain entirely outside the LCT and would therefore result in no direct effects. Intervisibility between the LCT and the Substation would continue to be heavily restricted by the existing woodland. Therefore, any indirect effects arising from the presence of the Substation, despite it being taller and larger in extent, would be highly unlikely. Overall, there would be a direct effect on the LCT due to the removal of roadside and hedgerow trees and semi-natural woodland, although noting existing influence on such features which reduces the change experienced. The Project would result in localised effects enabling the Bonnybridge Substation Extension and wayleaves for the New Build Overhead Line. Any changes would typically be set within
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the context of urban development including energy infrastructure, industrial built form, settlement and the local road network. The relatively flat valley floors enclosed by hills and strong topographic and visual identity with varying scale and character would remain unaffected by the Project. The duration of change would be long-term.

Magnitude of effect: Low

Operational (Year 15)

Proposed mitigation planting comprising shrub and woodland species to the southern and northwestern boundary would have established and would assist in the integration of the Bonnybridge Substation Extension into the local landscape. The planting species included in the mitigation planting would also contribute to the regeneration and reinstatement of roadside trees and hedgerows, and semi-natural woodland, which are a key characteristic of the LCT. The mitigation planting would aid in lessening the perceived scale of change by the Bonnybridge Substation Extension. The New-Build Overhead Line would remain to be located through the LCT as reported at Year 1.

Although the mitigation planting at Cumbernauld Substation would mature over time, the perceived scale of change would be unlikely to be perceptible due to restricted intervisibility created by surrounding woodland. Therefore, the effects on the LCT arising from Cumbernauld Substation are assessed as remaining consistent with the Year 1 assessment.

The duration of change would be long-term.

Magnitude of effect: Low

Minor
adverse
(not
significant)

Table 1.2.4 LCT 201 Plateau Farmland – Glasgow & Clyde Valley

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Distance to the Project: New Build Overhead Line (within the LCT) Bonnybridge Substation (5.8 km) Cumbernauld Substation (within the LCT)	Construction During construction, plant and activity associated with the New Build Overhead Line, XX Route, the dismantling and removal of CB Route, and Cumbernauld Substation Extension would present within the LCT. This would include, in addition to the core construction activities, works to provide access to the towers and overhead line (i.e. WB-B01 – WB-B06, WB-08 – WB-B12), localised earthworks and movement of construction materials along temporary and existing access tracks. The extensive, flat and gently undulating topography would remain unaffected other than very localised alteration associated with tower platforms.	Moderate adverse (significant)
Value: Medium Susceptibility: Low Extensive, open, flat or gently undulating landform with limited tree cover provide limited opportunities to utilise landform as a backdrop or to screen new development. Some remnant pastoral farmlands are surrounded by a strong structure of hedges and trees which increases susceptibility. The rural character has diminished with increased visual influence	For the Cumbernauld Substation Extension, the proposed earthworks would be highly localised and would largely follow the existing perimeter of the existing Cumbernauld Substation. The extensive and open landform of the LCT would remain largely unchanged. Regarding the movement introduced by construction works, the degree of contrast would be further reduced for areas in the context of settlement, mineral workings, forestry operations and infrastructure. The undulating topography, a characteristic of the LCT, would partially contain the perception of these activities, and thereby, lessening the perceived change. The recreational opportunities within the Palacerigg Country Park would be influenced with increased activity and movement. Construction noise would be noticeable in a localised area; however, this would occur within the context of existing forestry and agricultural operations which reduces the perceived contrast. Any indirect changes on the setting of the LCT associated with the New Build Overhead Line works further north would have a limited influence due to extensive forestry plantation within the northern part of the LCT. Any influence would be within the context of existing forestry operations and the urban edge of Cumbernauld, which lessens the degree of contrast.	

of detracting features which provide local context to the Project, thereby lessening susceptibility. Forestry operations have created harsh, geometric lines of plantation, which further reduce susceptibility. The LCT overlaps with LLU 5b Fragmented Farmlands – Area East of Airdrie, LLU 6a Plateau Farmlands – Northern Plateau Farmland, and LLU 7 Plateau Moorlands. LLU 5b is fragmented in nature, whereas LLU 7 is characterised by an upland and exposed landscape with large-scale landform and prevalent industrial and energy developments. These features provide context for the Project, thereby reducing susceptibility. However, LLU 6a has a generally well-managed landscape with a consistent rural	The influence of construction lighting would be reduced in parts of the LCT affected by the presence of settlements, including areas near Cumbernauld and Glenmavis, as well as the existing Cumbernauld Substation. While the perceived scale of change resulting from lighting associated with the Cumbernauld Substation Extension works and a large extent of the New Build Overhead Line works would be lessened due to the presence of settlements and the existing Substation, lighting along the New Build Overhead Line would be more perceptible within the more rural parts of the LCT. Bonnybridge Substation Extension is located entirely beyond the boundaries of this LCT; consequently, no direct physical effects will occur. Given the intervening distance and the screening provided by the local landform, the development will not result in any perceptible indirect or perceptual changes to the landscape character. Overall, there would be a localised direct effect on the LCT associated with construction activities at tower locations, access points along the New Build Overhead Line, and the Cumbernauld Substation Extension. The localised lighting would be a partial alteration in the more rural parts of the LCT. Whilst perceptible across the LCT, the degree of contrast would be reduced due to existing influence of forestry and mineral operations within the LCT. The characteristic feature of the topography across the LCT would remain unaffected. The duration of change would be short-term. Magnitude of effect: Medium	
	Operational (Year 1) At operation Year 1, the New Build Overhead Line would involve the localised, permanent removal of grassland, hedgerows and hedgerow trees, woodland and forestry plantation along the New Build Overhead Line (WB001-WB021, WB021A, WB021B, WB021C, WB022-WB027) with tower platforms and wayleaves. Whilst this would influence directly on the key characteristic features of the LCT, the removal of vegetation would be perceived in the context of harsh lines created by forestry operations, which would reduce the perceived change.	Minor adverse (not significant)

character defined by hedgerows and hedgerow trees, with medium- to long-distance views, thereby increasing susceptibility.

Landscape Sensitivity:
Medium

Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be medium.

The works would be perceptible across the LCT however the degree of contrast reduced due to the existing CB Route in the northern section and existing overhead towers and lines in the southern section of the LCT which provide context and the visual influence of the urban edge, which is observed as a character of the LCT. The recreational opportunities within the Palacerigg Country Park would be influenced however has existing context of the CB Route through the landscape which lessens the degree of contrast.

For Cumbernauld Substation Extension works, the Project would result in the permanent removal of existing vegetation around the perimeter of the existing Cumbernauld Substation, mostly from the northeastern and southwestern areas leading to the existing entrance, to enable the inclusion of access roads and the entrance to the Project. The vegetation removed in these areas would not be immediately adjacent to the remnant pastoral fields, and the structure provided by the existing trees would remain largely unchanged.

The Cumbernauld Substation Extension works would also permanently alter the landform around the southern edge of the existing Substation. However, these changes would be highly localised, contained from the wider LCT and within the context of existing landform alteration associated with the substation. Whilst the Project would increase the scale of infrastructure both vertically and horizontally along the northeast-southwest axis, these changes would be perceived in the context of the existing Cumbernauld Substation in operation to reduce the perceived contrast. Permanent lighting associated with the operation of the Substation would be limited to low-level security/perimeter lights and temporary maintenance.. Occasional inspection and maintenance of the Substation would be noticeable from certain parts of the LCT; however, such activity would be infrequent and contained within the existing Cumbernauld Substation boundary. These works would be comparable to current localised operations and therefore unlikely to appear intrusive.

Any indirect changes on the setting of the LCT associated with the New Build Overhead Line works further north would have a limited influence due to extensive forestry plantation within the northern part of the LCT. Any influence would be within the context of existing vertical features comprising overhead towers and the urban edge of Cumbernauld, which lessens the

degree of contrast. For Cumbernauld Substation Extension, indirect changes would be enclosed by existing woodland, reducing visibility. Therefore, the large-scale landform would be retained and remain largely unchanged.

Proposed landscape mitigation relating to the Cumbernauld Substation Extension would be barely perceptible in year 1 of operation. Deer fencing would be installed but would be perceived in the context of existing perimeter fencing and is therefore not considered to have an adverse effect on landscape character.

The Bonnybridge Substation Extension lies wholly outside the boundaries of this LCT and, as such, direct physical effects would be unlikely. Owing to the intervening distance and the screening provided by local landform, any perceptible indirect or perceptual changes to landscape character arising from the development would also be unlikely.

Overall, there would be a direct effect on the LCT due to the removal of vegetation and the introduction of the New Build Overhead Line and the Cumbernauld Substation Extension. The perceived changes would result in localised effects associated with the creation of wayleaves for the New Build Overhead Line and space for the Substation Extension. The magnitude of these impacts would be in the context of existing forestry operations and the harsh, geometric lines of existing forestry woodland, which would reduce perceived contrast. For the Cumbernauld Substation Extension, the perceived scale of change would be further reduced when in the context of existing infrastructure within the Substation. The characteristic topographic features across the LCT would remain unaffected. The duration of change would be long term.

Magnitude of effect: Low

Operational (Year 15)

The effects on this LCT arising from the New Build Overhead Line at Year 15 are assessed as remaining consistent with the Year 1 assessment as no mitigation planting are associated with the New Build Overhead Line.

Minor adverse
(not significant)

For Cumbernauld Substation Extension, at Year 15, the localised effects on the LCT identified at Year 1 would continue. In addition, the new planting near Forest Road and along the cut slope would have established and would assist in integrating the Project, including the associated infrastructure and access roads, into the existing Cumbernauld Substation. The new planting would help to strengthen the existing structure of trees, which has experienced decline within the LCT, and would contribute to reinstating the overall rural appearance. These changes would be perceptible in small parts of the LCT. The duration of works would be long-term.

Magnitude of effect: Low

Table 1.2.5 LCT 203 Urban Fringe Farmland

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Distance to the Project: New Build Overhead Line (1.8 km) Bonnybridge Substation (14.6 km) Cumbernauld Substation (5.3 km) Value: Low	Construction During construction, there would be no direct influence of the New Build Overhead Line, Bonnybridge and Cumbernauld Substation Works on the LCT therefore there would be indirect effects only. Based on the ZTV coverage, plant and activities associated with the construction of the New Build Overhead Line would have an indirect influence on a small part of the setting of the LCT within the Study Area. This would be reduced in part due to existing vegetation cover within the LCT and wider landscape and distance from the Project. The context of the railway line transport route and within the urban fringe landscape would lessen the degree of change to construction due to existing movement in the landscape.	Negligible adverse (not significant)
Susceptibility: Low Hedges and trees around pockets of remnant pastoral farming, together with undulating topography in some parts of the LCT provide opportunities to utilise landform as a backdrop or to screen new developments. Visual influence of the urban edge and associated infrastructure provide local context to the	The influence of construction lighting on the perceptual qualities of the LCT would be largely reduced by distance, intervening vegetation and presence of the urban fringe in close proximity with existing light sources. Indirect effects on the LCT arising from the Bonnybridge Substation Extension would be unlikely, as the ZTV coverage indicates no visibility of the works from within the LCT. Indirect effects on the LCT arising from the Cumbernauld Substation works would also be unlikely due to distance, and intervening woodland surrounding the south-western edge of the Substation. Overall, there would be indirect effects on the setting and perceptual qualities of the LCT associated with the New Build Overhead Line construction activities. These effects would be limited due to containment provided by distance and intervening vegetation in the LCT and wider landscape and the urban fringe context of the LCT. The vast majority of the key characteristics of the LCT would remain unaffected due to the nature of the indirect changes. The duration of change would be short-term.	

Project to lessen susceptibility.	Magnitude of effect: Very Low	
The LCT overlaps with LLU 5a Fragmented Farmlands – Area either side of M73 Road Corridor, south of the A80 and LLU 6a Plateau Farmlands – Northern Plateau Farmland. LLU 5a represents a valuable recreational resource and has varied landscape where areas with more consistent rural character have higher susceptibility. LLU6a has a generally well-managed landscape with a consistent rural character defined hedgerows and hedgerow trees, with medium- to long-distance views, thereby increasing susceptibility. Landscape Sensitivity: Low	Operational (Year 1) At operational Year 1, there would be no direct influence of the New Build Overhead Line, Bonnybridge and Cumbernauld Substation Extension on the LCT. For indirect effects, the addition of the New Build Overhead Line would be perceptible at a distance however due to the key characteristics of the LCT, including being located within the urban fringe landscape, and the existing influence of overhead lines and towers in the surrounding landscape, the influence would be limited. The permanent vegetation removal would not appear dissimilar to existing edges of plantation forestry and overhead line wayleaves in the surrounding landscape. During operational Year 1, indirect effects on the LCT attributable to the Bonnybridge Substation Extension would remain unlikely, as ZTV analysis demonstrates no visibility of the operational development from within the LCT. Similarly, during operation Year 1, indirect effects associated with the Cumbernauld Substation works would be unlikely, owing to the separation distance, the intervening settlement of Cumbernauld, and the screening provided by woodland along the south-western boundary of the Substation. Overall, the indirect effects arising from the New Build Overhead Line on the setting of the LCT would be limited due to reduced perceptual contrast resulting from the urban fringe context of the LCT, intervening vegetation limiting change and extent of influence and similar influence of infrastructure in the surrounding landscape. The duration of change would be long-term. Magnitude of effect: Very Low	Negligible adverse (not significant)

Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be low.	operational (Year 15) The effects on this LCT at Year 15 are assessed as remaining consistent with the Year 1 assessment, as no proposed mitigation planting would be perceptible for the New Build Overhead Line, and mitigation proposals for the Bonnybridge and Cumbernauld Substations would also not be perceptible due to distance and intervening woodland. Magnitude of effect: Very Low	Negligible adverse (not significant)
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Table 1.2.6 LCT 213 Plateau Moorlands – Glasgow & Clyde Valley

Sensitivity of Landscape Receptor	Magnitude of Effect	Significance of Effect
Distance to the Project: New Build Overhead Line (within the LCT) Bonnybridge Substation (4.8 km) Cumbernauld Substation (1.7 km)	Construction Construction plant and activities associated with the New Build Overhead Line, as well as the dismantling and removal of the CB Route, would take place directly within but limited to the north-western corner of the LCT. This would include, in addition to the core construction activities, works to provide access to the towers and overhead line (i.e., WB-B13, WB-B14), localised earthworks, and the movement of construction materials along temporary and existing access tracks.	Minor adverse (not significant)
Value: Low	The displacement of grassland in the low-lying areas associated with the construction works would also compromise aspects of naturalness and remoteness. These direct impacts would occur along the New Build Overhead Line (WB028–WB030) and the CB Route (CB011–CB013). Nonetheless, these changes are unlikely to alter the overall vegetative pattern within the LCT, thereby limiting changes to its overall naturalness and remoteness. construction activities would also appear less contrasting given the presence of existing forestry operations and presence of energy infrastructure including wind farms.	
Susceptibility: Low The lack of modern development increases susceptibility. However, the undulating hills and sloping ridges providing opportunities as a backdrop or to screen the Project. The large scale of landform and extensive wind turbines within the LCT provide local context to the Project, thereby	No direct effects arising from the Bonnybridge and Cumbernauld Substation Extension works would be perceptible, as both parts of the Project are located entirely outside the LCT. Indirect changes resulting from the New Build Overhead Line to the setting of the LCT, associated with the temporary construction compounds and temporary access tracks, would be perceived across the western part of the LCT within the Study Area. Despite the extent of influence, the works would be perceptible within the context of existing forestry plantation operations and existing energy infrastructure which would lessen the degree of change. construction noise would be noticeable in a localised area; however, this would occur within the context of existing forestry operations.	

further reducing susceptibility. The LCT overlaps with LLU 5b Fragmented Farmlands – Area East of Airdrie, LLU 6b Plateau Farmlands – Southern Plateau Farmland, and LLU 7 Plateau Moorlands. LLU 5b is fragmented in nature as a result of past and present development. LLU 6b has both a well-defined landscape pattern and predominantly agricultural land, along with prominent infrastructure. LLU 7 is characterised by a large-scale landscape with prevalent industrial and energy developments. These features provide context for the Project, thereby reducing susceptibility.	Indirect changes arising from Bonnybridge Substation Extension works would be highly unlikely as the LCT is wholly outside the ZTV coverage. For Cumbernauld Substation Extension works, the indirect effects of construction activity would be highly limited due to intervening topography and vegetation cover. There is the potential for the upper extents of tall plant to be perceptible which has the potential to provide reference to development. This would be highly localised and typically within the influence of forestry activity in the LCT, the existing Substation infrastructure and wider landscape, which reduces the degree of contrast. The extent of influence of construction lighting would be reduced by the existing undulating and rolling landform within the LCT, as well as by retained woodland immediately adjacent to either side of the Development along the New Build Overhead Line and retained woodland surrounding the existing Substation for the Cumbernauld Substation Extension. Overall, there would be a localised direct effect on the LCT associated with the specific tower and access locations. This would include changes due to the introduction of construction plant and activity and the localised displacement vegetation and the displacement of grassland. Indirect effects associated with the remainder of the works would be perceptible across the LCT but the degree of contrast would be limited due to existing plantation forestry and the influence of existing Substation infrastructure. The duration of change would be short-term. Magnitude of effect: Low	
Landscape Sensitivity: Low	Operational (Year 1) At operation Year 1, the New Build Overhead Line would result in the permanent removal of vegetation and grassland associated with tower platforms and wayleaves. This would have a limited influence on the naturalness and remoteness of the LCT due to the existing CB Route wayleave and forestry plantation context. The permanent New Built Overhead Line would largely replace the CB Route, which would limit the direct and indirect degree of contrast on	Minor adverse (not significant)

Taking into account value judgements and susceptibility to change, overall sensitivity of the landscape character is considered to be low.

the LCT. Large-scale landform with undulating hills and sloping ridges, as defining characteristics of the LCT, would remain unaffected.

No direct effects arising from the Bonnybridge and Cumbernauld Substation Extension works would be perceptible, as both parts of the Project are located entirely outside the LCT.

The indirect influence of the new section of New Build Overhead Line to the south of Cumbernauld would introduce new energy infrastructure that would be perceptible across the LCT. However, due to the existing context of influence of wind development and other overhead lines and towers in the wider landscape, the effects on the key characteristics would be limited.

Indirect changes arising from Bonnybridge Substation Extension works and Cumbernauld Substation Extension works would be highly unlikely as the LCT is wholly outside the ZTV coverage.

Overall, there would be a localised direct effect on the LCT due to a short section of the New Build Overhead Line and the permanent removal of localised woodland and grassland. This would not compromise the sense of naturalness and remoteness due to the existing context. Indirect effects associated with the wider New Build Overhead Line would be widespread but would have a limited influence on the key characteristics of the LCT. The duration of change would be long term.

Magnitude of effect: Low

Operational (Year 15)

The effects on this LCT at Year 15 are assessed as remaining consistent with the Year 1 assessment, as no proposed mitigation planting would be perceptible for the New Build Overhead Line, and mitigation proposals for the Bonnybridge and Cumbernauld Substation Extension Works would also not be perceptible due to distance and the limited intervisibility indicated by the ZTV.

The duration of change would be long term.

Magnitude of effect: Low

Minor adverse
(not significant)