



Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Environmental Statement

Volume 3

Appendix 21.4 - Onshore Substation Setting Assessment

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Glossary of Acronyms

| | |
|------|---|
| AOD | Area of Development |
| BDC | Broadland District Council |
| DCO | Development Consent Order |
| DEP | The Dudgeon Offshore Wind Farm Extension Project |
| EIA | Environmental Impact Assessment |
| ES | Environmental Statement |
| ETG | Expert Topic Group |
| GIS | Geographical Information System |
| HE | Historic England |
| HDD | Horizontal Directional Drilling |
| km | Kilometre |
| LVIA | Landscape and Visual Impact Assessment |
| SVIA | Seascape and Visual Impact Assessment |
| NHER | Norfolk Historic Environment Record |
| NPPF | National Planning Policy Framework |
| OS | Ordnance Survey |
| PEIR | Preliminary Environmental Information Report |
| PPG | Planning Practice Guidance |
| RAF | Royal Air Force |
| SEP | The Sheringham Shoal Offshore Wind Farm Extension Project |
| UK | United Kingdom |
| ZTV | Zone of Theoretical Visibility |



Glossary of Terms

| | |
|---|---|
| Order Limits | The area subject to the application for development consent, including all permanent and temporary works for SEP and DEP. |
| Dudgeon Offshore Wind Farm Extension Project (DEP) | The Dudgeon Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure. |
| DEP onshore site | The Dudgeon Offshore Wind Farm Extension onshore area consisting of the DEP onshore substation site, onshore cable corridor, construction compounds, temporary working areas and onshore landfall area. |
| Jointing bays | Underground structures constructed at regular intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts. |
| Landfall | The point at the coastline at which the offshore export cables are brought onshore, connecting to the onshore cables at the transition joint bay above mean high water |
| Onshore cable corridor | The area between the landfall and the onshore substation sites, within which the onshore cable circuits will be installed along with other temporary works for construction. |
| Onshore export cables | The cables which would bring electricity from the landfall to the onshore substation. 220 – 230kV. |
| Onshore Substation | Compound containing electrical equipment to enable connection to the National Grid. |
| PEIR boundary | The area subject to survey and preliminary impact assessment to inform the PEIR. |
| Sheringham Shoal Offshore Wind Farm Extension Project (SEP) | The Sheringham Shoal Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure. |
| SEP onshore site | The Sheringham Shoal Wind Farm Extension onshore area consisting of the SEP onshore substation site, onshore cable corridor, construction compounds, temporary working areas and onshore landfall area. |
| Study area | Area where potential impacts from the project could occur, as defined for each individual Environmental Impact Assessment (EIA) topic. |
| The Applicant | Equinor New Energy Limited |

21.4 ONSHORE SUBSTATION SETTING ASSESSMENT

21.4.1 Introduction

1. This report presents the results of an assessment of the predicted impacts of the onshore infrastructure Sheringham Shoal Offshore Wind Farm Extension Project (hereafter SEP) and Dudgeon Offshore Wind Farm Extension Project (hereafter DEP), both individually and cumulatively, on the significance of onshore heritage assets resulting from changes in their setting.
2. This assessment builds upon preliminary work on the setting of heritage assets undertaken in 2021 as part of the Onshore Archaeology and Cultural Heritage Preliminary Environmental Information Report (PEIR).
3. The initial stages of the setting study determined that the onshore substation would lead to a material change in the setting of heritage assets. As such, assets within 5km of the proposed onshore substation were identified as requiring further assessment.
4. Twenty-one designated heritage assets have been identified where a change in setting could lead to material harm to their significance. This report contains detailed assessments of the predicted impact of SEP and DEP on these 21 designated heritage assets.
5. The assessment presented in this appendix presents the following construction scenarios for SEP and DEP:
 - Both SEP and DEP are developed together, either concurrently or sequentially ('together' scenarios).
 - SEP or DEP (but not both) is developed alone ('in isolation' scenarios).
6. Both scenarios would include connection to the Norwich Main National Grid substation located north of the onshore substation.

21.4.2 Relevant Guidance

7. Setting is defined as the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may take a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance, or may be neutral.
8. The advice note also notes that the settings of heritage assets change over time. Understanding the history of change will help to determine how further development within the asset's setting is likely to affect the contribution made by setting to the significance of the heritage asset.
9. A requirement for the assessment of the settings of heritage assets is defined in Planning Practice Guidance (PPG): Historic Environment (MHCLG, July 2019). This guidance has been updated in support of the NPPF (2021) and reiterates the importance of assessing heritage assets in a manner appropriate to their significance, and the contribution to its setting, to better understand the potential impact and acceptability of development proposals.

10. Conservation is an active process of maintenance and managing change, requiring a flexible and thoughtful approach. The neglect and decay of heritage assets is best addressed by ensuring that they have a viable use that is consistent with their conservation.
11. An important consideration should be whether development proposals adversely affect (harm) a heritage asset's significance. Key elements of the guidance relate to assessing harm as 'substantial' or 'less than substantial' in accordance with NPPF paragraphs 200-202. Critically, it is the degree of harm to the heritage asset's significance rather than the scale of the development that is to be assessed and should be explicitly identified.
12. The level of substantial harm is stated to be a 'high test'. Whether development proposals cause substantial harm will be a judgment in the decision-taking process, having regard to the circumstances of the case and by applying the relevant NPPF paragraphs. The harm may arise directly from works to the heritage asset, or indirectly from development within its setting. A thorough assessment of the harm that development proposals will have on this setting needs to consider, and be proportionate to, the heritage asset's significance and the degree to which any changes enhance or detract from that significance, and the ability to appreciate and experience it.

21.4.3 Summary of Previous Assessment

13. An initial screening assessment of designated assets in the vicinity of the proposed onshore infrastructure was undertaken and presented in **Annex 23.3.1** of **Appendix 23.3** of the PEIR.
14. The screening assessment used a Zone of Theoretical Visibility (ZTV) (generated for the Landscape and Visual Impact Assessment) to identify heritage assets where significant effects of SEP and DEP may or may not be experienced.
15. The ZTV used for this assessment models terrain and land-cover, the latter using indicative heights (with heights derived from NEXTMAP 25 surface mapping data). The methodology for the ZTV process is set out in **Chapter 26 Landscape and Visual Impact Assessment**.
16. In addition to the use of the ZTVs, a desk-based exercise of the heritage assets was utilised, with the use of Google Earth and Bing maps. Additional knowledge was obtained from the initial site visit conducted in October 2020.
17. The aim of the site visit was to assess the condition of above ground designated and non-designated heritage assets (e.g., historic earthworks and structures), along with providing initial setting assessment information of the identified heritage assets.
18. Heritage assets located entirely outside the ZTV have been screened out as have those where distance, orientation and/or vegetation (where appropriate) would lead to no impacts. Similarly, assets where small areas of them lie within the ZTV but there would be no significant effects created by SEP and DEP have been screened out.

19. In addition, designated heritage assets located within the built development of Norwich and 5km from the proposed substation location were screened out. This was on the basis that significant effects by SEP and DEP are unlikely as their setting is formed very largely or entirely by the landscape and built environment of Norwich or were located at too great of a distance to be affected.
20. Developments which are on the edge of the built development of Norwich have been considered on a case-by-case basis as to whether significant effects by SEP and DEP are likely, depending on the setting of the asset.
21. As part of the screening assessment, collaborative workshops were undertaken with landscape specialists. The aim of this was to refine specific heritage viewpoints to capture photomontages in order to inform the final setting assessment, set out in this report. Those assets selected for further assessment with the use of the heritage viewpoints are presented below.
22. Following the initial screening assessment (**Annex 23.3.1** of **Appendix 23.3** of the PEIR), a high-level setting assessment was undertaken (**Appendix 23.3** of the PEIR). This was undertaken with respect to potential impacts from the proposed above ground permanent infrastructure on the setting of designated heritage assets within a 5km buffer of the two substation options considered at the PEIR Stage . This has subsequently been reduced to a single preferred substation location as part of the DCO application.
23. This was deemed appropriate for the heritage setting assessment on selected designated assets, such as Grade I and II* Listed buildings, Conservation Areas and Scheduled Monuments. For non-designated heritage assets, a study area of 1km was deemed appropriate
24. The assessment comprised **Step 1** of Historic England’s advice presented in Historic Environment Good Practice in Planning Note 3: The Setting of Heritage Assets second edition (Historic England, 2017).
25. .
26. Work was also undertaken on the visibility of the wind turbines as part of the seascape, landscape, and visual amenity studies for SEP and DEP in **Chapter 25 - Seascape and Visual Impact Assessment** of the ES. The setting assessment for offshore infrastructure is presented in **Appendix 21.5**.

21.4.4 Setting Assessment Methodology

27. This setting assessment is undertaken in accordance with the Historic England advice presented in Historic Environment Good Practice in Planning Note 3: The Setting of Heritage Assets second edition (Historic England, 2017). This recommends a staged approach to the assessment of potential impacts on heritage significance, comprising the following five steps:
 - **Step 1:** Identify which heritage assets and their settings are affected.
 - **Step 2:** Assess the degree to which these settings make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated.
 - **Step 3:** Assess the effects of the proposed development, whether beneficial or harmful, on that significance or on the ability to appreciate it.



- **Step 4:** Explore ways to maximise enhancement and avoid or minimise harm.
 - **Step 5:** Make and document the decision and monitor outcomes.
28. A separate assessment of offshore infrastructure on the significance of coastal heritage assets is presented in **Appendix 21.5**.
29. This assessment addresses **Steps 2 to 4**, with a re-evaluation of **Step 1** undertaken for the ES setting assessment. This assessment focuses on designated assets whose significance may be impacted through changes to their setting as a result of the operation of SEP and DEP. A 5km study area has been used.
30. **Step 1** (the identification of assets) was undertaken as part of the PEIR for SEP and DEP. It concluded that 21 assets may be affected and therefore merited further assessment in Steps 2 to 4. However, as a result of a reduction in number of substation site options (from two down to one) additional LVIA wire frames, viewpoints and photomontages, further assets have been screened out. Those further assets screened out of the 21 identified at PEIR are:
- Venta Icenorum: Roman town and associated prehistoric, Anglo-Saxon and medieval remains (1021463, Scheduled Monument)
 - Gowthorpe Manor House (1050515, Grade II*)
 - Barn c.40m west of Gowthorpe Manor House (1366141, Grade II*)
 - Mangreen Hall (1366150, Grade II*)
 - Church of All Saints (1373136, Grade II*)
 - Church of St Edmund (1373145, Grade II*)
 - Church of All Saints (1050644, Grade II*)
 - Keswick Hall (1050702, Grade II)
 - Paddock Farmhouse (1050702, Grade II)
 - Cowshed c.10m north-west of Barn at Gowthorpe Manor House (105017, Grade II)
 - Gazebo c.10m South of Gowthorpe Manor House (1050516, Grade II)
 - Garden Walls and Gate Piers immediately south-west of Gowthorpe Manor House (1170357, Grade II)
 - Mangreen Lodge c.50m east of Mangreen Hall (1050518, Grade II)
 - Barn at Hall Farm with attached Cattle Shelters (1170403, Grade II)
 - Intwood Hall (1000320, Grade II Registered Park and Garden)
31. In addition, all of the Conservation Areas have been removed from further assessment.
32. The heritage assets screened out from the assessment and the rationale for this is presented in full in **Annex 21.4.1 - Step 1: Identify which heritage assets and their settings are affected**
33. As such, three assets remain, which have been carried forward to Steps 2 and 3. These are:
- Church of St Peter (1169726, Grade II*)

- Church of the Holy Cross (1050437, Grade II*)
 - Church of St Mary Magdalen (1172267, Grade II*)
34. **Step 2** (the degree to which setting contributes to the significance of the asset) involved desk-based research, site visits and the use of LVIA wire frames and photomontages of assets progressed past Step 1. In each case, written statements describe their heritage significance with a focus on the contribution made by their setting.
35. **Step 3** (impact of the proposed development). It has been determined that only changes in setting due to the operation of SEP and DEP would be of sufficient duration to merit assessment. As such, construction and decommissioning have not been assessed.
36. Visual change is considered to be the only aspect of setting that would be changed in ways that could affect heritage significance. The presence of the onshore infrastructure in the landscape has the potential to change the appearance and character of the setting, as well as changing specific views within these settings that contribute to the significance of the assets. Understanding of the predicted visual changes in the setting of the three assets has been informed by the production of photomontages.
37. The assessment has been undertaken as a ‘worst-case’ scenario assuming that both SEP and DEP would be constructed and operate at the same time
38. Conclusions of Step 3 regarding the impact of the projects has been expressed in terms of the magnitude of impact (harm) to the significance of heritage assets, applying the magnitude criteria set out in **Chapter 4 EIA Methodology** of the ES. Magnitude of impact has also been expressed using the vocabulary of the Overarching National Policy Statement for Energy (EN-1) and the NPPF (i.e., ‘substantial’ and ‘less than substantial’ harm) to permit direct application to the policy tests in these documents.
39. **Step 4** (maximise enhancement, minimise harm) has involved dialogue with other specialists (including landscape specialists) and engagement with key stakeholders as part of the Landscape and Visual Impact Expert Topic Group (ETG) to ensure relevant assets were identified and sufficiently assessed.
40. **Step 5** (decision-making and monitoring) lies beyond the remit of this report but will be addressed by the Applicant post-consent.

21.4.5 Proposed Onshore Infrastructure Relevant to This Assessment

41. The assessment is based on an understanding that the appearance of the setting of the identified heritage assets will change as a result of the operation of SEP and DEP.
42. The area where change will occur is in the vicinity of the proposed onshore substation and National Grid substation at Norwich Main.
43. The proposed onshore substation site is located in arable land south of the existing Norwich Main substation. The site is approximately 250m south of Norwich Main. The substation site is of sufficient size to accommodate the maximum footprint required for both SEP and DEP.

44. The substation would be 3.25ha (SEP or DEP in isolation) or 6ha (SEP and DEP together). It would have a maximum building height of up to 15m, with lightning protection masts up to 30m and all other external equipment up to 15m.
45. A new permanent operational access would be required to access the onshore substation. This access would share part of the existing access to National Grid's Norwich Main substation.
46. A new section of this existing access would continue south between the Norwich Main site (to the west) and the rail line (to the east). The permanent access road would be 6m wide and designed to provide operation and maintenance access throughout the operational life of the substation.
47. A full description of SEP and DEP and the construction scenarios are provided within **Chapter 4 Project Description** of the ES.

21.4.6 Identification of Heritage Assets

48. The assessment for each asset is divided into three sections that equate to Steps 2 and 3 of the Historic England approach to assessment of setting. The two sections here that relate to Step 3 are referred to as Step 3a and 3b:
 - *Significance of the heritage asset*: a description of the significance of the asset, focussing on the contribution made by its setting (Step 2).
 - *Predicted change to the setting of the asset*: a description of how the setting would be changed by the operation of the projects, focussing on changes to how the asset would be experienced (Step 3a).
 - *Predicted impact on the significance of the asset*: an assessment of how and to what degree the changes in the setting would impact (positively or negatively) on the significance of the asset (Step 3b).
49. Understanding of the change to setting (addressed in Step 3a) is supported by wireframes from several viewpoints that are relevant to the three heritage assets.
50. Conclusions regarding predicted impacts on the significance of heritage assets (Step 3b) reflect the ways in which the predicted change to setting (Step 3a) affects the contribution made by setting to significance (Step 2). Conclusions are expressed in terms of magnitude of impact (harm) to significance.

21.4.7 Significance of the Heritage Assets (Step 2)

51. Three heritage assets have been identified where there is potential harm to their significance due to the operation of SEP and DEP. SEP and DEP would lie within the setting of these assets so may result in changes to their character and significance. The three assets are:
 - Church of St Peter (1169726, Grade II*)
 - Church of the Holy Cross (1050437, Grade II*)
 - Church of St Mary Magdalen (1172267, Grade II*)
52. The locations of these assets are shown on **Figure 21.4.1** These assets were identified as requiring further assessment as part of the initial screening and setting assessment undertaken at Step 1.

21.4.7.1 Church of St Peter (1169726, Grade II*)

53. The Church of St. Peter is located in a rural setting in the village of Swainsthorpe. It is located towards the centre of the village and is a key feature within it.
54. The significance of the monument is recognised by its designation as a Grade II* nationally listed building. The asset takes in the remains of a medieval church with Norman origins. The round west tower is likely to date to the 12th century, while the remainder of the church dates to the 14th century. The church was restored in 1885 when the south porch was rebuilt.
55. The significance of the church is largely derived from its physical remains and the considerable architectural, archaeological, artistic, and historic interest they hold. The remains also contain information about the religious and civic organisation of Swainsthorpe throughout the intervening centuries. Additionally, the setting of the church plays an important role in its character and significance.
56. As discussed, the church is located within the village of Swainsthorpe, which is itself located in a large agricultural landscape. The immediate setting of the church is provided by the churchyard. This creates a historically appropriate space around the church from which the architecture of the building, as well as the functionality of the church can be appreciated at close range.
57. The church can also be appreciated as an important feature within the village of Swainsthorpe, reinforcing the historic interest of the church as a component of this historic settlement. Views into the village are largely from the tower, as the church and churchyard are surrounded by vegetation. There are also short-range views from the village towards the church, for example from Church Road.
58. The church can also be experienced as a prominent feature from the surrounding landscape. These views allow the church to be appreciated in its historic role as the spiritual and physical focal point of its parish, adding further to the historic interest in the asset. Long range views from the church across the landscape are limited to the tower.
59. As stated, the church is largely screened from the surrounding landscape with views across it limited to the tower. As the primary function of the church is as a place of worship, long range views to the tower are key to its appreciation as a beacon to would be worshippers. As such, views from the tower into the landscape are not considered to be key to its appreciation and setting, however, the tower may have been used as a viewpoint during times of conflict.
60. While the setting of the church is considered to be an important contributor to its significance, long range views from the tower are not considered to be a key contributor to its setting.

21.4.7.2 Church of the Holy Cross (1050437, Grade II*)

61. The Church of the Holy Cross is located in a rural setting in the village of Stoke Holy Cross. The church is located at the southern end of the village and is a prominent feature in the landscape.



62. The significance of the monument is recognised by its designation as a Grade II* nationally listed building. The asset takes in the remains of a 13th century church with 14th century alterations. The church was thoroughly rebuilt in 1879, however, the tower seems to be original and dates to the 14th century.
63. The significance of the church is largely derived from its physical remains and the considerable architectural, archaeological, artistic, and historic interest they hold. The remains also contain information about the religious and civic organisation of Stoke Holy Cross throughout the intervening centuries. Additionally, the setting of the church plays an important role in its character and significance.
64. As discussed, the church is located at the southern end of Stoke Holy Cross, which is itself located in a large agricultural landscape. The immediate setting of the church is provided by the churchyard. This creates a historically appropriate space around the church from which the architecture of the building, as well as its functionality as a church can be appreciated at close range.
65. The churchyard is set on raised ground and stands above the Norwich Road. The church is located outside the main village; however, it can be appreciated as an important landmark from the surrounding houses, reinforcing the historic interest of the church as a component of this historic settlement. Views into the village largely come from the tower, as the church and churchyard are surrounded by vegetation. There are also short-range views from Norwich Road towards the church.
66. The church can also be experienced as a prominent feature from the surrounding landscape. These views allow the church to be appreciated in its historic role as the spiritual and physical focal point of its parish, adding further to the historic interest in the asset. Long range views from the church across the landscape are limited to the tower.
67. As stated, the church is largely screened from the surrounding landscape with views across it limited to the tower. As the primary function of the church is as a place of worship, long range views to the tower are key to its appreciation as a beacon to would be worshippers. As such, views from the tower into the landscape are not considered to be key to its appreciation and setting, however, the tower may have been used as a viewpoint during times of conflict.
68. While the setting of the church is considered to be an important contributor to its significance, long range views from the tower are not considered to be a key contributor to its setting.

21.4.7.3 Church of St Mary Magdalen (1172267, Grade II*)

69. Church of St Mary Magdalen is located in a rural setting in the village of Mulbarton. The church is located towards the centre of the historic village and is a prominent feature.
70. The significance of the monument is recognised by its designation as a Grade II* nationally listed building. The asset takes in the remains of a medieval parish church with a 14th century west tower with chequered flushwork, a late 19th century north aisle and other 19th century alteration. It also contains a very important collection of 17th century memorials.

71. The significance of the church is largely derived from its physical remains and the considerable architectural, archaeological, artistic, and historic interest they hold. The remains also contain information about the religious and civic organisation of Mulbarton throughout the intervening centuries. Additionally, the setting of the church plays an important role in its character and significance.
72. As discussed, the church is located within the village of Mulbarton, which is itself located in a large agricultural landscape. The immediate setting of the church is provided by the churchyard. This creates a historically appropriate space around the church from which the architecture of the building, as well as the functionality of the church can be appreciated at close range.
73. The church can also be appreciated as an important feature within the village reinforcing the historic interest of the church as a component of this historic settlement. Views into the village largely come from the tower, as the church and churchyard are surrounded by trees and vegetation. There are also short-range views from the village towards the church, for example from Mulbarton Common and Norwich Road.
74. The church can also be experienced as a prominent feature from the surrounding rural landscape, which is unlikely to have seen significant changes over the centuries. These views allow the church to be appreciated in its historic role as the spiritual and physical focal point of its parish, adding further to the historic interest in the asset. Long range views from the church across the landscape are limited to the tower.
75. As stated, the church is largely screened from the surrounding landscape with views across it limited to the tower. As the primary function of the church is as a place of worship, long range views to the tower are key to its appreciation as a beacon to would be worshippers. As such, views from the tower into the landscape are not considered to be key to its appreciation and setting, however, the tower may have been used as a viewpoint during times of conflict.
76. While the setting of the church is considered to be an important contributor to its significance, long range views from the tower are not considered to be a key contributor to its setting.

21.4.8 Predicted Change to the Setting of the Asset (Step 3a) and Predicted Impacts to Heritage Significance (Step 3b)

77. This section assesses how the setting of the identified assets would be changed by the operation of the proposed onshore infrastructure (Step 3a). It also provides an assessment of how and to what degree the changes in the setting would impact (positively or negatively) on the significance of the asset (Step 3b).

21.4.8.1 Church of St Peter (1169726, Grade II*)

Predicted change to the setting of the asset

78. The onshore substation would be located approximately 730m north of the Church of St Peter.

79. There is limited intervisibility from the Church of St Peter to the proposed substation location as the church and churchyard are screened by surrounding vegetation and the built development of Swainsthorpe. However, there are views between the proposed substation location and the church tower.
80. Views from the proposed substation location towards the church tower or vice versa were not obtained during the site visit, and no viewpoints are available. However, views from along the Ipswich Road indicate there is intervisibility between the tower and the proposed substation location. As these were obtained from Google Earth they are not presented in this assessment.
81. As discussed above in **Section 21.4.7.1**, views from the church tower into the surrounding agricultural landscape are not considered to be a key contributor to the setting of the church. Key views which contribute to the significance of the church are those from within the village and views from the landscape to the church.
82. As such, the proposed onshore substation location is not considered to significantly change the setting of the church and would not interrupt views which do contribute. Therefore, there will be minimal change to the setting of the Church of St Peter.

Predicted change on the significance of the asset

83. As there is considered to be limited or very little change to the setting of the Church of St Peter, there will be limited change to the heritage significance of the church however this is likely to be non-significant in EIA terms.

21.4.8.2 Church of the Holy Cross (1050437, Grade II*)

Predicted change to the setting of the asset

84. The onshore substation would be located approximately 1.8km northwest of the Church of the Holy Cross
85. There is limited intervisibility from the Church of the Holy Cross to the proposed substation location as the church and churchyard are screened by surrounding vegetation and topography. However, there are views between the proposed substation location and the church tower.
86. During the heritage site visit, access to the tower could not be obtained. As such, no views from the tower towards the proposed substation location were obtained. However, viewpoints were obtained from Norwich Road from which wireframes have been produced (see **Figure 26.22 of Chapter 26: Landscape and Visualisation**). These indicate that there will be some intervisibility between the substation and the church tower from Norwich Road, so it is reasonable to assume there could be views from the tower.
87. The wireframes indicate that from Norwich Road, only external equipment (30m above max. ground level) would be visible. As the church tower is elevated from the road, some of the buildings (15m above max. ground level) may be visible from the tower.



88. As discussed above in **Section 21.4.7.2** views from the church tower into the surrounding landscape are not considered to be a key contributor to the setting of the church. Key views are those from within the churchyard, at points within the village and views from the surrounding landscape. While the proposed substation location lies within the surrounding landscape, views back towards the church from ground level are screened by intervening trees, vegetation, and topography.
89. As such, the operation of the onshore substation would result in no change to the setting of the Church of the Holy Cross.

Predicted change on the significance of the asset

90. As there is considered to be no change to the setting of the Church of St Peter, there would be no change to the significance of the church.

21.4.8.3 Church of St Mary Magdalen (1172267, Grade II*)

Predicted change to the setting of the asset

91. The onshore substation would be located approximately 2.3km northeast of the Church of St Mary Magdalen.
92. There is limited intervisibility between the Church of St Mary Magdalen and the proposed substation location as the church and churchyard are screened by surrounding vegetation and topography. However, there is some intervisibility between the proposed substation location and the church, provided by views from the church tower.
93. During the heritage site visit, it was determined that there were likely views from the church tower towards the proposed substation location, however, the church tower could not be accessed. However, viewpoints and wireframes obtained from a footpath towards the edge of the Mulbarton Conservation Area indicate there is likely some intervisibility between the church tower and the proposed substation location (see **Figure 26.21** of **Chapter 26: Landscape and Visualisation**).
94. The wireframes indicate that from the footpath only external equipment (30m above max. ground level) would be visible. As the church tower is more elevated than the footpath, some of the buildings (15m above max. ground level) may be visible from the tower.
95. As discussed in **Section 21.4.7.3**, views from the church tower into the surrounding landscape are not considered to be a key contributor to the setting of the church. Key views are from within the village of Mulbarton towards the church and from the church to the village. Additionally, views from the surrounding landscape towards the tower contribute to its setting.
96. While the proposed substation location lies within the surrounding landscape, views back towards the church from ground level are screened by intervening trees, vegetation, and topography.
97. As such, the operation of the onshore substation would result in no change to the setting of the Church of St Mary Magdalen.



Predicted change on the significance of the asset

98. As there is considered to be no change to the setting of the Church of St Mary Magdalen, there would be no change to the significance of the church.

21.4.9 Explore ways to maximise enhancement and avoid or minimise harm (Step 4)

99. As detailed above, there would be limited or no change to the setting of the heritage assets (and associated heritage significance) and therefore no mitigation measures are considered to be required.

100. In general, however, and as part of best practice, the design of the onshore substation and permanent infrastructure should be sympathetic to the surrounding landscape to mitigate the visual elements of the infrastructure further. This in turn would help to further minimise the effect upon the setting of the heritage assets (and associated heritage significance) than the low levels of change already identified.

101. This is discussed further in **Chapter 21 Onshore Archaeology and Cultural Heritage**.



References

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