NORTH FALLS

Offshore Wind Farm

Biodiversity Net Gain Strategy Technical Note (Clean)

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Biodiversity Net Gain Strategy Technical Note

NORTH FALLS
Offshore Wind Farm

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N/A.

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Glossary of Acronyms

BNG	Biodiversity Net Gain
DCO	Development Consent Order
Defra	Department for Environment Food and Rural Affairs
EIA	Environmental Impact Assessment
ES	Environmental Statement
HDD	Horizontal Directional Drilling
NSIP	Nationally Significant Infrastructure Project
TCPA	Town and Country Planning Act 1990

Glossary of Terminology

Landfall	The location where the offshore cables come ashore.
Onshore cable route	Onshore route within which the onshore export cables and associated infrastructure would be located.
Onshore export cables	The cables which take the electricity from landfall to the onshore substation. These comprise High Voltage Alternative Current (HVAC) cables, buried underground.
Onshore project area	The boundary within which all onshore infrastructure required for the Project will be located (i.e. landfall; onshore cable route, accesses, construction compounds; onshore substation and cables to the national grid substation).
Onshore substation	A compound containing electrical equipment required to transform and stabilise electricity generated by the Project so that it can be connected to the national grid.
Onshore substation works area	Area within which all temporary and permanent works associated within the onshore substation are located, including onshore substation, construction compound, access, landscaping, drainage and earthworks.
The Applicant	The Applicant is North Falls Offshore Wind Farm Limited (NFOW).
The project Or 'North Falls'	North Falls Offshore Wind Farm, including all onshore and offshore infrastructure.

1. INTRODUCTION

1.1.1 This technical note provides supplemental information to that submitted within the Biodiversity Net Gain (BNG) Strategy for the North Falls Offshore Wind Farm project (herein 'North Falls' or 'the project') **[APP-257]**. The supplemental information is being provided in response to Natural England's Relevant Representation **[RR-243]**.

1.1.2 This technical note contains the following information:

- Natural England's relevant representation responses regarding BNG, and those points raised which this technical notes seeks to address;
- Assumptions made for the BNG 'additional option' calculation which includes all retained habitats within the project's Order Limits; and
- Outputs from the additional option calculation.

1.1.3 The full outputs of this additional option calculation and copies of the completed Statutory Biodiversity Metric are provided in Appendix A and Appendix B.

1.1.4 Following the submission of the original version of the Biodiversity Net Gain Strategy Technical Note at Examination Deadline 1, further updates have been undertaken to the document. Table 1.1 provides a summary of the amendments that have been made to date.

Table 1.1 Summary of Biodiversity Net Gain Strategy Technical Note changes

Biodiversity Net Gain Strategy Technical Note Revision Number	Summary of Changes	Relevant Section of the Biodiversity Net Gain Strategy Technical Note
1	Updated BNG calculations to accommodate changes to the baseline hedgerow dataset and to the length of hedgerow affected by the Bentley Road improvement works and visibility splays.	Table 4.1, Table 4.2, Section 5, APPENDIX A, APPENDIX B

2. NATURAL ENGLAND RELEVANT REPRESENTATION

2.1 Natural England Relevant Representation

2.1.1 Natural England's Relevant Representation in relation to BNG has been presented in Table 2.1 below for reference. The Applicant's response to the points raised by Natural England are then summarised in the remainder of this section of this technical note.

Table 2.1 Natural England Relevant Representation in relation to BNG

Natural England Reference	Application Reference	Natural England Comment	Natural England Recommendation
H33	**[APP-257 Sec 2, 17]**	Natural England notes that Biodiversity Net Gain requirements for Nationally Significant Infrastructure Projects (NSIPs) are not yet mandatory. Whilst we expect the BNG policy approach for NSIPs to broadly follow that of the Town and Country Planning Act (TCPA) development, the detailed policy requirements are yet to be established. We are expecting a government consultation on the policy to be published shortly which will help to address some current areas of uncertainty regarding NSIPs (including baselining across the entire Order Limits, and the temporary acquisition of land).	**Natural England recognises the Applicant's commitment to exploring opportunities to deliver a minimum 10% BNG and advise that this should be secured by requirement in the DCO.**
H34	**[APP-257 Sec 4.2.2, paras 54-55]**	Natural England highlights the Applicant's position on the determination of the boundary. The suggested approach prior to mandatory BNG, does not reflect best practice or the approach used for TCPA development. Therefore, any deviation from BNG best practice and principles should continue to be justified and clearly reported. We note that metric calculations will be re-run post-consent at the detailed design stage. We agree that updating metric calculations over time is required to reflect design iterations and we encourage developments to continue to maximise their potential biodiversity outcomes throughout the detailed design process. Ultimately, metric inputs should accurately reflect the built development.	**Natural England advises that, for consistency, everything within the Red Line Boundary (Order Limits) should be included in the BNG baseline calculations, including any retained habitats. We would also advise that North Falls are consistent with the approach taken by the VE project.**
H35	**[APP-257 Sec 4.4.3.1, 77]**	Natural England notes that the project is not currently proposing to commit to achieving 10% BNG in the watercourse module due to the complexity of creating and enhancing watercourse units. In line with Rule 2. We advise that the requirement to deliver at least a 10% net gain is applied to each type of unit. We would also advise that	**Natural England highlights current government guidance that mitigation or compensation for protected species or designated site impacts can contribute up to "no net loss", with 10% BNG being additional. We advise**

Natural England Reference	Application Reference	Natural England Comment	Natural England Recommendation
		watercourses are factored into the statutory credit calculations given the metric highlights a 29% loss in the watercourse module. Guidance and pricing on statutory credits has now been published and can be accessed here: Statutory biodiversity credits - GOV.UK (www.gov.uk) Buy statutory biodiversity credits - GOV.UK (www.gov.uk)	**that a clear audit trail is kept of any land assigned for compensation, mitigation and BNG to distinguish what is being delivered for which purpose and where. Relevant guidance on mitigation and compensation in regard to BNG can be found here: What you can count towards a development's biodiversity net gain - GOV.UK** (www.gov.uk)
H36	**[APP-257, Sec 4.4.5.1, 89-92]**	Natural England notes the proposed approach to hedgerows outlined in section 4.4.5.1 (pg.27) with hedgerows subject to post-reinstatement surveys for a period of 5 years after completion. Whilst this approach is acceptable prior to mandatory BNG, it does not reflect best practice, or the approach used for TCPA development. Best practice would be to maintain all replaced hedgerows for a minimum of 30 years in line with BNG regulations.	**Natural England advises that where the longterm management of hedgerows for this period cannot be secured, they should be treated as "habitat loss" within the BNG metric. Once BNG is mandatory, then a legal agreement would be required to secure the management for thirty years where habitats will be lost. The document should be updated to reflect this commitment.**
H37	**[APP-257, Sec 4.4.5.1, 89-92]**	With regards to cropland and any agricultural grassland, we note the points raised in relation to the implementation of BNG.	**Natural England advises that the correct risk multiplier is applied within BNG calculations, in line with the Statutory Biodiversity Metric User Guide.**

2.2 BNG Calculation Baseline

2.2.1 Natural England in their relevant representation responses highlighted that the methodology used for calculating BNG by North Falls differs from Defra's Statutory Biodiversity Metric User Guide (Defra, 2024[1]). North Falls notes that the requirement for 10% BNG under the Environment Act 2021 is not currently mandatory for Nationally Significant Infrastructure Projects (NSIPs), and no guidance nor draft biodiversity gain statement is available at present in regard to providing BNG for NSIPs. It is noted that Schedule 15 to the Environment

[1] Defra (2024) Defra (2024) Statutory biodiversity metric tools and guides. Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides.

Act 2021 envisages that certain development may be "excluded development" but no draft regulations have been published by the Secretary of State to date.

2.2.2 Natural England acknowledge this in Natural England Relevant Representation Reference H34 (see Table 2.1 above).

2.2.3 North Falls have committed to re-running their BNG calculations at the detailed design stage post-consent, by which time further detail in regard to BNG and NSIPs is expected to be available. Natural England also acknowledged this commitment, stating "*We note that metric calculations will be re-run post-consent at the detailed design stage. We agree that updating metric calculations over time is required to reflect design iterations and we encourage developments to continue to maximise their potential biodiversity outcomes throughout the detailed design process. Ultimately, metric inputs should accurately reflect the built development"* [Natural England Relevant Representation Reference: H34 (see Table 2.1 above)].

2.2.4 Natural England's recommendation to resolve their above concerns is "*for consistency, everything within the Red Line Boundary (Order Limits) should be included in the BNG baseline calculations, including any retained habitats*" [Natural England Relevant Representation Reference: H34 (see Table 2.1 above)]. Whilst it remains the Applicant's position that the BNG calculation options provided within the BNG Strategy **[APP-257]** provide a reasonable assessment of the BNG baseline for the purpose of pre-consent outline BNG assessment, in order to address this comment from Natural England, an additional BNG calculation option for North Falls which includes all retained habitats within the project's Order Limits within the Metric's habitat baseline has been prepared and is provided in this technical note. The provision of this 'additional option' BNG calculation demonstrates what the outputs of such a calculation would be, and is provided for information.

2.3 Hedgerow Reinstatement

2.3.1 Within their relevant representation, Natural England also highlighted that, in the BNG Strategy, "*hedgerows [are] subject to post-reinstatement surveys for*

a period of 5 years after completion. Whilst this approach is acceptable prior to mandatory BNG, it does not reflect best practice, or the approach used for TCPA development. Best practice would be to maintain all replaced hedgerows for a minimum of 30 years in line with BNG regulations", and to resolve this they recommend "where the long-term management of hedgerows for this period cannot be secured, they should be treated as "habitat loss" within the BNG metric. Once BNG is mandatory, then a legal agreement would be required to secure the management for thirty years where habitats will be lost" [Natural England Relevant Representation Reference: H36 (see Table 2.1 above)].

2.3.2 The Applicant notes that a requirement to maintain reinstated hedgerows for 5 years is typical for nationally significant infrastructure projects that include linear underground apparatus.

2.3.3 As above, whilst it remains the Applicant's position that the BNG calculation options provided within the BNG Strategy **[APP-257]** provide a reasonable assessment of the BNG baseline for the purpose of pre-consent outline BNG assessment, in order to address this comment from Natural England, in the 'additional option' BNG calculation provided in this technical note, and to represent a very worst case scenario, all hedgerows where 30 years maintenance cannot be secured have been recorded as 'habitat loss' within the baseline and it has been assumed that reinstatement will be entered into the Metric as 'habitat creation' post-development.

2.4 Cropland and Agricultural Land Risk Multiplier

2.4.1 Natural England also stated "*with regards to cropland and any agricultural grassland, we note the points raised in relation to the implementation of BNG*" [Natural England Relevant Representation Reference: H37 (see Table 2.1 above)]. This response is referring to the assumption made within the BNG Strategy **[APP-257]** to exclude arable habitats from the 30 year monitoring and maintenance period as "*they do not receive a condition score within the Defra Statutory Biodiversity Metric. This is due to the cultivated nature of arable habitats, the state of which relies entirely on anthropogenic influences.*

These influences make it impossible to determine habitat condition as this could vary with crop type, time of year and agricultural practices used" **[Para.100, APP-257]**.

2.4.2 Natural England recommends that "the correct risk multiplier is applied within BNG calculations, in line with the Statutory Biodiversity Metric User Guide" [Natural England Relevant Representation Reference: H37 (see Table 2.1 above)].

2.4.3 As above, whilst it remains the Applicant's position that the BNG calculation options provided within the BNG Strategy **[APP-257]** provide a reasonable assessment of the BNG baseline for the purpose of pre-consent outline BNG assessment, in order to address this comment from Natural England, in the 'additional option' BNG calculation provided in this technical note, each area of arable habitat has been included within the baseline, and categorised as either 'retained' or 'lost then created post-development', depending on the project impacts in each area.

2.5 Summary of changes made to the 'additional option'

2.5.1 In summary, the Applicant is of the opinion that in the absence of any statutory requirement or guidance relating to BNG for NSIPs, the assumptions made within the outline BNG calculation provided within the BNG Strategy **[APP-257]** are reasonable and relevant to the nature of undertaking pre-consent calculations for BNG for a NSIP of this nature. In order to provide address the comments made by Natural England regarding the potential BNG units required by the project, were the calculations to include the alternative assumptions proposed by Natural England, the Applicant has prepared an 'additional option' BNG calculation which includes these three assumptions. The assumptions which have been amended for this additional option in response to the points raised above, are summarised in Section 3.3.

3. BNG ADDITIONAL OPTION ASSUMPTIONS

3.1.1 To make clear what assumptions have been amended for the 'additional option' calculations provided with this technical note, a summary of those assumptions from the BNG Strategy **[APP-257]** which have been adhered to, and those which have been amended, are provided below.

3.2 Assumptions Consistent with BNG Strategy

3.2.1 In line with the original BNG calculations set out in the project's BNG Strategy **[Para. 63-64, APP-257]**, two calculations have been produced to account for the following potential build-out scenarios:

- **North Falls alone being consented ('project-alone'):** one Metric for the North Falls onshore substation works area and onshore cable route; and
- **North Falls and Five Estuaries both being consented ('cumulative'):** one Metric for the joint onshore substation works area and onshore cable route of both projects.

3.2.2 The key assumptions which North Falls maintain within this additional option include:

- If mosaic habitats are present which contain more than one UKHab habitat, these should be recorded as their primary Metric habitat type.
- Hedgerow biodiversity units were recorded as a line measurement along the length of the feature, with all habitats adjacent to the hedgerow being mapped to this line.
- Watercourse modules and condition assessments included an assessment of the riparian zone, which included the water channel, channel margin, bank face and 10m from the bank top.
- The post-development conditions used in this calculation are based on outline landscape designs shown in ES Figure 30.1.6 **[APP-083]** and referred to in ES Chapter 30 Landscape and Visual Impact Assessment

[APP-044] and the construction footprint described in ES Chapter 5 Project Description **[APP-019]**.

- The construction footprint for the onshore project area which will be subject to temporary losses of habitat includes:
    - Cable route working width;
    - Temporary construction compounds;
    - Construction accesses (including visibility splays);
    - Bentley Road improvement works;
    - Onshore substation works area; and
    - Landfall Horizontal Directional Drilling (HDD) temporary works area.
- Where the time between habitat loss during construction and full reinstatement post-development exceeds a two year period (i.e. the maximum duration for which a habitat can be 'temporarily' lost), this will be classed as habitat loss and subsequent habitat creation within the Metric, to account for the time delay in reaching their target condition.
- All habitat interventions will be assumed to take place post-construction with no advanced habitat creation or enhancement, in line with the project's worst case scenario.
- Permanent habitat losses which will occur within the onshore project area comprise only the onshore substation footprint and associated permanent infrastructure.
- Hedgerow crossings not subject to trenchless crossings (i.e. those crossed using open-cut trenching) are expected to result in removal of 30m of hedgerow. All hedgerows subject to removal to facilitate haul road access will have a 15m swathe removed. The 15m swathe in some cases, for example north of Bentley Road, is additional to that of the 30m lost for trenching.

- All watercourses located along the onshore cable route crossed using trenchless techniques (e.g. HDD) and will be recorded as ‘retained’ in the BNG calculations.
- No stand-off distances have been included for the pre-consent calculations for trenchless crossings, as such standoff distances are not yet known. These will be included in the post-consent calculations at the detailed design stage, if required.
- Once detailed design for the Project’s onshore infrastructure has been undertaken, then the calculations outlined in the project’s BNG Strategy **[APP-257]** will be re-run in order to produce definitive baseline biodiversity values for the onshore project area. The calculation method will remain the same as outlined in the BNG Strategy, using the most up-to-date version of the Defra Biodiversity Metric available at the time, and using any new documents relevant to the habitat’s strategic significance. This is secured through DCO Requirement (Requirement 21 of the Draft Development Consent Order **[AS-022]**).
- Revised baseline biodiversity values will then be fed into the development of the Project’s detailed written landscaping scheme (secured by DCO Requirement (Requirement 12 of the Draft Development Consent Order **[AS-022]**)) in order to determine the number of biodiversity units which are required to achieve the Project’s BNG aims.
- At detailed design stage, a decision will then be made as to whether a joint or separate BNG calculations will be undertaken for the two projects (North Falls and Five Estuaries).
- A new BNG Assessment Report, as secured through Requirement 21 of the Draft Development Consent Order **[AS-022]**, will be produced detailing the final calculations, the habitat creation plan, and details of any proposed off-site habitat creation or credit purchases at the detailed design stage.

3.3 Assumptions Differing from the BNG Strategy

3.3.1 The key assumptions of this additional option which differ from those set out in within North Falls' BNG Strategy **[APP-257]** are as follows:

- Retained habitats, i.e. those habitats not directly impacted but still within the project's Order Limits, have been recorded as retained within the Metric. As such, the definitions of on and off-site areas have also changed:
    - "On-site" areas include all habitats within the Order Limits, regardless of impacts of the proposed development.
    - "Off-site" areas are those outside of the project's Order Limits.
- All hedgerows where 30 years maintenance and monitoring cannot be secured (i.e. all hedgerows crossed using trenched techniques along the onshore cable route) will be recorded as habitat loss within the baseline, and their reinstatement will be entered into the Metric as habitat creation post-development.
- All areas of arable habitat within the Order Limits will be included in the Metric, either as 'retained' or 'lost then created post-development' depending on the respective impacts in each area.

4. BNG ADDITIONAL OPTION CALCULATION OUTPUT

4.1.1 The findings of the 'additional option' BNG calculations undertaken using the amended assumptions described above are summarised in this section.

4.2 North Falls Alone ('Project Alone')

4.2.1 On-site post-development habitat creation to compensate for losses within the North Falls alone onshore substation works area[2] have been calculated as all

[2] The footprint of the 'North Falls alone onshore substation works area' is shown in Figure 1 of the BNG Strategy **[APP-257].**

taking place within the boundary of the North Falls alone part of the onshore substation works area. Excess biodiversity units from the North Falls alone onshore substation landscaping will be used to compensate for any losses along the onshore cable route.

4.2.2 The headline results of the on-site additional option calculation of the North Falls alone scenario are summarised in Table 4.1 The full Statutory Biodiversity Metric for this scenario is detailed in Appendix A.

Table 4.1 On-site BNG summary for the additional option calculation of the North Falls alone ('project alone') scenario.

	Baseline biodiversity units	Post-development biodiversity units	Net change in biodiversity units	% BNG
Habitats	592.75	632.89	+ 40.14	**+ 6.77%**
Watercourses	7.37	6.91	- 0.46	**- 6.26%**
Hedgerows	65.57	68.83	+ 3.26	**+4.91%**

4.3 North Falls and Five Estuaries Joint Build ('Cumulative')

4.3.1 On-site post-development habitat creation to compensate for losses within the joint North Falls and Five Estuaries onshore substation works area[3] will all take place within the boundary of the joint onshore substation works area. Excess biodiversity units from the joint onshore substation landscaping will be used to compensate for losses along the onshore cable route.

4.3.2 The headline results of the on-site additional option calculation of the joint onshore cable route are summarised in Table 4.2. The full Statutory Biodiversity Metric for this scenario is detailed in Appendix B.

[3] The footprint of the 'North Falls and Five Estuaries joint onshore substation works area' is shown in Figure 2 of the BNG Strategy **[APP-257].**

Table 4.2 On-site BNG summary for the additional option calculation of the North Falls and Five Estuaries joint ('cumulative') scenario.

	Baseline biodiversity units	Post-development biodiversity units	Net change in biodiversity units	% BNG
Habitats	636.25	704.40	+ 68.15	**+ 10.71%**
Watercourses	8.07	6.91	- 1.15	**- 14.31%**
Hedgerows	65.57	80.65	+ 15.08	**+ 22.93%**

5. CONCLUSIONS

5.1.1 The Applicant has provided updated BNG calculations using the assumptions recommended by Natural England in their Relevant Representation **[RR-243]**. It remains the Applicant's position that, in the absence of any statutory requirement or guidance relating to BNG for NSIPs, the BNG calculation options provided within the BNG Strategy **[APP-257]** provide a reasonable assessment of the BNG baseline for the purpose of pre-consent outline BNG assessment. The updated BNG calculations provided here are provided only for the purposes of demonstrating the BNG unit changes predicted should the Natural England assumptions be used.

5.1.2 Using the amended assumptions recommended by Natural England, the 'additional option' BNG calculations return different net change in BNG unit values to those presented in the BNG Strategy **[APP-257]**.

5.1.3 The hedgerow habitat module for both North Falls Alone and North Falls and Five Estuaries Joint scenarios provide an on-site net gain of over 10% in biodiversity units, however the on-site net gain achieved by the North Falls Alone scenario is currently below 10% BNG target using Natural England's assumptions (10% net gain is achieved using the Applicant's assumptions). Therefore, using the assumptions identified by Natural England, following the mitigation hierarchy, the Project would need to secure bespoke off-site

compensation if on-site options are not possible, and then Defra biodiversity credit purchase as a last resort (in line with the mitigation hierarchy), if 10% net gain were to be achieved.

5.1.4 The area habitat module for both North Falls Alone and North Falls and Five Estuaries Joint scenarios provide an on-site net gain in biodiversity units, however the on-site net gain achieved by the North Falls Alone scenario is currently below the 10% BNG target using Natural England's assumptions (10% net gain is achieved using the Applicant's assumptions). Therefore, using the assumptions identified by Natural England, following the mitigation hierarchy, the project would need to secure bespoke off-site compensation if on-site options are not possible, and then Defra biodiversity credit purchase as a last resort (in line with the mitigation hierarchy), if 10% net gain were to be achieved.

5.1.5 A net loss is experienced in watercourse module biodiversity units for both scenarios. As stated within the BNG Strategy **[APP-257]** it is not currently proposed to commit to off-site interventions to compensate for these losses due to the complexity of watercourse enhancement and creation, as well as the Project design already minimising impacts on watercourse habitats a far as practicable within the onshore project area.

5.1.6 This technical note has demonstrated the difference in net change in BNG unit values predicted should Natural England's assumptions be adhered to. Following Natural England's recommended assumptions, based on the outline design information available at this stage in the project's development, in order to achieve 10% BNG, offsite mitigation options for area habitats would be required in the 'North Falls Alone' build out scenario. The steps for achieving the desired level of net gain for area habitats in the event of the project not being able to deliver this through on-site habitat creation are set out within the BNG Strategy **[APP-257]**.

5.1.7 The supplemental calculations provided in this technical note are indicative as they are based on pre-consent design information, and the process set out in the BNG Strategy **[APP-257]** regarding recalculating the change in BNG units

following detailed design and following decision regarding North Falls and Five Estuaries build-out options post-consent will be used to determine the final BNG baseline used to underpin the delivery of BNG for North Falls.

APPENDIX A. BNG ADDITIONAL OPTION METRIC – NORTH FALLS ALONE

APPENDIX B. BNG ADDITIONAL OPTION METRIC – NORTH FALLS AND FIVE ESTUARIES JOINT BUILD

NORTH FALLS

Offshore Wind Farm

HARNESSING THE POWER OF NORTH SEA WIND

North Falls Offshore Wind Farm Limited

A joint venture company owned equally by SSE Renewables and RWE.

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Registered in England and Wales Company Number: 12435947