



Joint Substations Design Guide Explainer and Feedback Form

(Phase 2)

The Joint Substations Design Guide (Design Guide) has been produced by **North Falls** and **Five Estuaries** offshore wind farms.

This second draft has been prepared to support the development of what will become the final Design Guide for North Falls and Five Estuaries' co-located onshore substations.

The Joint Substations Design Guide (Design Guide) is being produced by North Falls and Five Estuaries offshore wind farms to inform the detailed design of **North Falls** and **Five Estuaries'** co-located onshore substations.

This Design Guide brings together the two projects' individual approaches and plans into one combined document that will be provided (once finalised), alongside other documents, to the commissioned substation designers, setting a fixed framework for the final substation designs.

The purpose of the Design Guide is to:

- **Outline the overarching design principles** for each substation.
- **Establish a series of shared commitments** that the final substation designs must follow.
- **Cover key elements such as site layout, building form and materials**, ensuring a consistent and coordinated design approach across both projects, particularly if separate contractors are commissioned.

*We are now in the second phase of a two-phase engagement process. Please provide any feedback you may have on the second draft of the Design Guide by **11:59pm Tuesday 17 March**.*

*(See **page 5**, 'preparing your feedback'.)*

Summary of Phase 1

The first draft of the Design Guide presented optionality and invited feedback on topic areas such as colour, landscaping and fencing.

We received some really helpful and insightful feedback during Phase 1 of the engagement process, which took place between 18 August and 29 September 2025, receiving 19 pieces of feedback and welcoming over 60 people to our public information day in Lawford.

Thank you to everyone who took the time to engage in the process and provide feedback. Opposite, we've included a summary of Phase 1 feedback. The final draft of the Design Guide – to be issued later this year following the conclusion of Phase 2 – will include a more detailed overview of feedback received and how it's been considered.

- **An overarching preference for substation buildings to integrate with the surrounding rural landscape** in terms of building form and roof type.
- **Calls for materials to be as environmentally-friendly as possible.**
- **Preference for chosen colours and materials to blend into the local rural landscape**, including nearby agricultural buildings, as far as possible.
- **General preference for planting to include a mix of native species** and avoid species that suffer in drought.
- **Request for consideration of how planting will be monitored** and / or maintained.
- **Questions on how fencing will interact with planting.**
- **How the general public uses the area.**
- **Comments that planting to field boundaries could obstruct road user visibility** and calls for appropriate road signage to safeguard against collisions.



Joint Substations Design Guide engagement timeline*

PHASE 1

18 August 2025:

First draft of the Design Guide issued, initiating the start of the first six-week engagement period.

2 September 2025:

Drop-in public information day at Lawford Venture Centre, from 3pm to 7pm.

29 September 2025:

First six-week review period concludes. The project teams consider the feedback received and work on the second draft of the Design Guide.

PHASE 2

3 February 2026:

Second draft of the Design Guide issued, initiating the start of the second engagement period.

17 March 2026:

Second review period concludes. The project teams will consider the feedback received and work on the final draft of the Design Guide.

Spring 2026:

The final Joint Substations Design Guide is published, including a summary of the feedback received and how it shaped the final document. Selected stakeholders are briefed directly.

**Future milestones are as anticipated at the time of publishing and subject to change.*

Reading the Design Guide

The updated Design Guide is available to read online via each project's website:

- www.northfallsoffshore.com/design-guide
- www.fiveestuaries.co.uk/design-guide

You can request a printed copy of the Design Guide and feedback form by emailing contact@northfallsoffshore.com or fiveestuaries@rwe.com.

The Design Guide is split into nine parts:

- **Section 1: Introduction**
This section sets the scene for the design guidance included in the subsequent parts of the Design Guide.
- **Section 2: The projects**
This section provides context for the projects and outlines clear regulatory, technical and performance requirements for future detailed design.
- **Section 3: The site**
- **Section 4: Layout**
- **Section 5: Design and materials**
- **Section 6: Sustainability**
- **Section 7: Colour**
- **Section 8: Landscape and ecology**
- **Section 9: Engagement**
This section provides an overview of the engagement process taken to create the Design Guide and a summary of the feedback received at each stage as a result.

This draft of the **Design Guide** is more technical in nature as we look to more closely align it with its ultimate purpose – to be used as a document that informs the tender and detailed design processes by providing a clear indication of design requirements for the two projects.

Its content has been informed by feedback received during Phase 1 and further input provided by **Essex County Council, Tendring District Council** and the **Essex Quality Review Panel (EQRP)**.

The engagement process *Direct feedback:* —————●



Preparing your feedback

Please provide any feedback you may have on the second draft of the Design Guide by the end of the second phase of engagement: **11.59pm Tuesday 17 March 2026.**

- **By post:** Complete this feedback form and send it to us using the addressed envelope and stamp provided.
- **Email us:** Send your written comments or complete this interactive form and forward to contact@northfallsoffshore.com or fiveestuaries@rwe.com.

Please note that you only need to submit your feedback to one project for it to be considered for both.

After the engagement phase is finished we will consider the feedback received and prepare the final version of the Design Guide. We will notify stakeholders when this has been published.

The two projects will continue to provide regular updates on matters relating to their proposed co-located substations following the conclusion of the Design Guide engagement process.

Joint Substations Design Guide feedback form

Generally, we've achieved consensus on the majority of the topics for which we presented options during Phase 1. We're therefore seeking comments on how we've interpreted the feedback received and how the Design Guide has evolved as a result.

To help with this we've summarised the feedback we received for each of the Phase 1 questions, alongside a brief explanation of how that section of the Design Guide has been updated.

On pages 18-19, we've presented areas where we're looking for additional feedback, including:

- **Changes we've made to the Design Guide relating to sustainability and public rights of way.**

- **How people use the area around the proposed substation sites.**

This document is best read alongside the Design Guide and against each question we have signposted where within the Design Guide you can find more information to inform your feedback. Please complete as many questions as you wish.

Your details (— Required fields)

Full name

Address

Email

Organisation (if applicable)

1 LAYOUT

Phase 1 question: *If it is possible to reduce the size of either substation compound, where do you feel the reduction area(s) should be?*

SUMMARY OF FEEDBACK RECEIVED:

General preference for the size of the substation compounds to be reduced where possible – specifically their width.

How the Design Guide has changed as a result

Should a reduction in the AIS footprint be possible, the preferred approach is to reduce the width, allowing for additional planting along the immediate southern boundary. This could provide more flexibility to enhance screening to views from Normans Farm, Jennings’ Farm and Ardleigh Road.



For more information, see **Design Guide: Section 4 (Layout)**.

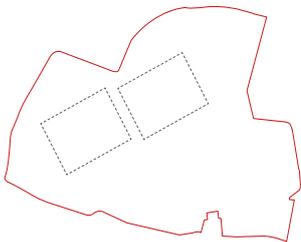


Plate 05: Current compound arrangement.

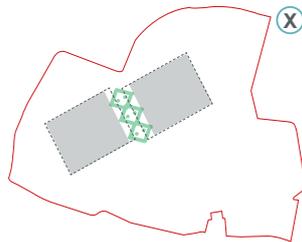


Plate 06: Shortened length, allowing widened central planting.

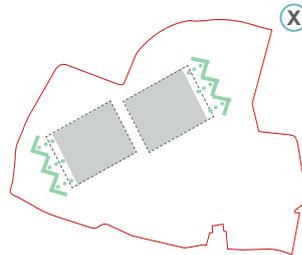


Plate 07: Shortened length, allowing widened edge planting to south west and north east.

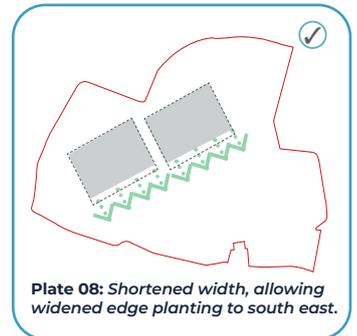


Plate 08: Shortened width, allowing widened edge planting to south east.

Please provide feedback here:



2 BUILT FORM

Phase 1 question: *What are your views on the suggested approach to the design of buildings that would be located within the substation compounds?*

SUMMARY OF FEEDBACK RECEIVED:

General preference for substation buildings to resemble agricultural buildings found in the local area and for buildings to be as low profile as possible. Overarching preference for substation buildings to integrate with the surrounding rural landscape in terms of cladding, materials and roof type. The majority of people stated that they would prefer pitched roofs rather than flat roofs so that substation buildings would more closely resemble agricultural buildings.

How the Design Guide has changed as a result

Further analysis of local agricultural structures has fed into the latest version of the Design Guide in order to provide more tailored guidance for built form. Dual pitch and mono pitch roofs are retained as options for substation buildings while flat roof and multiple pitches options have been discounted. There are further considerations added to the Design Guide providing optionality on how the larger buildings, which create longer elevations, could be broken up.



*For more information, see **Design Guide: Section 5** (Design and Materials).*

Please provide feedback here:

3 MATERIALS

Phase 1 question: *What are your views on the suggested approaches to the materials for the buildings that would be located within the substation compounds?*

SUMMARY OF FEEDBACK RECEIVED:

General preference for materials to be environmentally-friendly and to resemble local agricultural buildings as much as possible. Some people commented that agricultural buildings in the surrounding area are typically steel-framed and that metal cladding would therefore be the most appropriate construction method.

How the Design Guide has changed as a result

The Design Guide notes the preference for built form to echo local agricultural precedents and materials. Design solutions are focused on those that can be achieved using steel structures and cladding materials. Further information has been provided and local precedents explored within the Design Guide.



*For more information, see **Design Guide: Section 5** (Design and Materials).*

Please provide feedback here:



4 FENCING

Phase 1 question: Do you have a preference for the fencing types and colour options being considered for the secure boundary to the wider substation sites?

SUMMARY OF FEEDBACK RECEIVED:

The majority of people stated a preference for fencing to be shades of green or brown to blend into the rural landscape. General preference for palisade fencing to the secure boundary with some people calling for access points for hedgehogs and other small mammals.

How the Design Guide has changed as a result

Since the Design Guide was issued for Phase 1, the requirement for an in-depth security review has been identified, in line with emerging Department for Energy Security and Net Zero (DESNZ) guidance. This will be the primary consideration when determining the type and height of fencing to the secure compound perimeter. The preference for fencing in shades of green and brown is noted, and colour options are identified within the Design Guide.



For more information, see **Design Guide: Section 5** (Design and Materials).



Plate 09: Palisade fencing. The use of 'standard' green (RAL 6005) contrasts with natural vegetation colours / Source: Oakdale.



Plate 10: Palisade fencing example, showing close tonal and colour relationship to the Winter landscape backdrop (RAL 100 30 20 Olive Green used in this example) / Source: LUC.

Please provide feedback on next page...

4 Please provide feedback here:

5 FENCING

Phase 1 question: *Do you have a preference of the fencing types being considered for the perimeter boundary to the wider substation sites?*

SUMMARY OF FEEDBACK RECEIVED:

Questions were raised regarding which habitat areas required fencing, how fencing could influence how people use the area around the proposed substation sites, and how fencing could impact PRowS. We received mixed feedback, with some people stating a preference for timber post and rail fencing. Most people asked for the fence to be set to the centre line of proposed hedge planting. The majority of people stated a preference for fencing to be shades of green or brown, and of traditional countryside or agricultural style, to blend into the rural landscape.

How the Design Guide has changed as a result

Three types of fencing were suggested within the first draft of the Design Guide. Optionality in fencing type has since reduced due to a requirement by the Department for Food, Environment and Rural Affairs (Defra) and the need to establish a distinct physical boundary at specific locations. Two options for fence type remain: timber post and rail, which is preferred, and a timber post and mesh fence, which may be considered where appropriate.

A maximum fence height of 1.2m is recommended. This is subject to an assessment of the risk to planting from grazing wildlife and adequate plant protection measures being put in place.



For more information, see **Design Guide: Section 5** (Design and Materials).



Plate 75: Timber post and rail fence. The spacing of rails allows free passage for all wildlife. Source: Jacksons Fencing.



Plate 76: Timber post and wire fence. The wire mesh could hinder the passage of wildlife. Source: Suregreen.

Please provide feedback on next page...

5 Please provide feedback here:

6 SUSTAINABILITY

SUMMARY OF FEEDBACK RECEIVED:

There were calls for the projects to consider opportunities for innovation, including utilising green roofs, solar panels and multi-functional landscape buffers within the design. People also asked for sustainability to be considered as much as possible through substation design and the materials used.

How the Design Guide has changed as a result

We have included more information about how we have had regard to sustainability throughout the document, and we have included a dedicated section (**Section 6**) on sustainability, which includes more information on which options it is considered tenderers should explore in designing the substation. Please provide any general feedback you may have on changes made to the updated Design Guide in relation to this section.



*For more information, see **Design Guide: Section 6** (Sustainability).*

Please provide feedback here:

7 COLOURS

Phase 1 question: *Do you have a preference on the colours being considered for the buildings that would be located within the substation compounds?*

SUMMARY OF FEEDBACK RECEIVED:

Mixed feedback, though generally people stated a preference for 'winter landscape, mixed' and 'landscape subtle' colour applications for the buildings. There was an overarching preference for the chosen colours to blend into the rural local landscape and complement nearby agricultural buildings as far as possible. There was general consensus that the 'electricity' colour scheme is inappropriate and that colours should not be 'vivid' or 'bold'.

How the Design Guide has changed as a result

The architectural colour palette has been updated to better capture the colours of local agricultural buildings. The colour palette for the substation buildings is drawn from a selection of baseline greys from the architectural palette, combined with subtle accent colours drawn from both local agricultural barns and subtle landscape colours.



*For more information, see **Design Guide: Section 7** (Colour) from **page 57** for the colour palette considered for the substation buildings.*

Please provide feedback here:



8 COLOUR APPLICATION

Phase 1 question: *Do you have a preference for the colour application methods being considered for buildings that would be located within the substation compounds?*

SUMMARY OF FEEDBACK RECEIVED:

No clear majority view other than for the chosen application method to complement the local rural aesthetic as far as possible, and that colours and application methods that help to visually integrate the substation buildings within the landscape would be preferable.

How the Design Guide has changed as a result

The Design Guide recommends that colours to be used for the wall panels of the substation buildings create a visually engaging design that integrates with the local landscape context. The structure of the proposed design uses 'grey' colours sampled from local farm buildings as baseline colours for the wall panels of the substation buildings, including subtle accent colours from the landscape and architectural colour palettes. This will help to break up the massing and horizontal nature of the substation building forms, while also relating to the colour and form of blocks of vegetation in the rural landscape.

We are seeking your views on three worked examples, and whether we should retain all three as options or reduce this optionality further.



*For more information, see **Design Guide: Section 7 (Colour)** for options for colour application.*

Please provide feedback here:

9 LANDSCAPE AND ECOLOGY

Phase 1 question: *What are your views on the planting and species proposed across the substation sites?*

SUMMARY OF FEEDBACK RECEIVED:

Questions were raised regarding how landscape features such as hedgerows and shelterbelts will be monitored and maintained in the long-term, and how the projects' planting proposals interact with National Grid's Norwich to Tilbury Project proposals. There were calls for a greater focus on placemaking, ecology and recreation without compromising farming activities. There was a general preference for planting to include a mix of native species and to avoid species that typically suffer in dry conditions. Also calls for planting to be as mature as possible by the time the substations are built. Requests for the project to show consideration and alignment with the Essex Local Nature Recovery Strategy.

How the Design Guide has changed as a result

The Design Guide includes updated information regarding the proposed shelterbelts and hedgerows, including information about species mixes. It recommends that the proposed landscape features will allow for necessary, safe access and maintenance of landscape features, and the landscape and ecology proposals have been updated to reflect recent ditch survey alignments and relevant setbacks to allow room for access and maintenance.

All proposed species lists have been reviewed, and the climate resilience section recommends the selection of diverse native and locally appropriate species which are climate resilient, along with consideration of appropriate stock size and planting timing.

Recommendations for locations where advance planting may be appropriate have been included. The document has been updated to reflect its alignment with the Essex Local Nature Recovery Strategy, and include reference to adjacent projects to the site to illustrate intentions to align with these proposals. The final landscape proposals will come forward in the Landscape and Ecology Management Plan.

To consider when preparing your feedback

All detailed monitoring and maintenance plans, and final planting species lists, will be addressed within the respective projects' Landscape and Ecology Management Plan / Ecological Management Plan. The Design Guide has included a review of opportunities for public amenity in **Section 4** (Recreation). You can respond to our approach to recreation use around the substation on question 10.



For more information, see **Design Guide: Section 8** (Landscape and Ecology).

Please provide feedback here:





Illustrative Landscape and Ecology Masterplan (see page 108)

Please provide feedback here:

10 RECREATION

Phase 1 question: *How do you currently use the area in and around the proposed substation sites? Are there opportunities to support how communities use the area, once the substations have been built?*

SUMMARY OF FEEDBACK RECEIVED:

Feedback stated that the area around the proposed substation sites is well used by cyclists, walkers and horse riders. There were calls for proposals to facilitate and complement recreational use as far as possible. Some concerns were raised regarding how proposals could impact the safety of those who currently use the area recreationally.

How the Design Guide has changed as a result

The Design Guide has considered how to enhance countryside access for recreational users, identifying a potential footpath route through the site. Further discussions will be undertaken with Essex County Council, Tendring District Council and local parish councils to inform the proposals. Where possible, opportunities to provide managed access within the site will be considered.

To consider when preparing your feedback

- Do you have any views on the potential provision of a path through the site, including the proposed route, and potential for other open spaces?
- What provision within the site do you think would support local communities and improve access? For example, off-road paths for walking, cycling or horse riding, or a recreational area with trees and natural landscape.
- Are there any particular routes in the wider area around the site that you use often which could be improved? For example, clearer path markings or signage, safer crossings, or rest areas.



For more information, see **Design Guide: Section 4.4** (Recreation).

Please provide feedback here:

Please feel free to annotate the below maps to support your feedback.

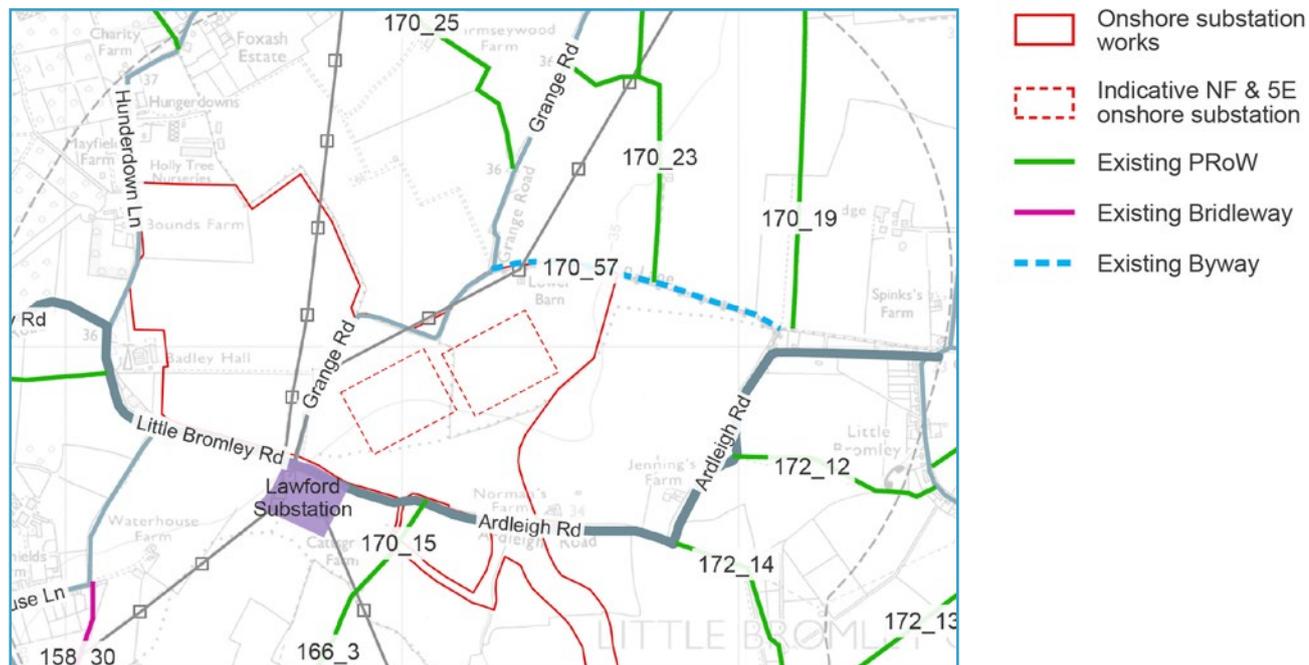


Plate 01: Existing PRoW at the site. Source: NFOWF.

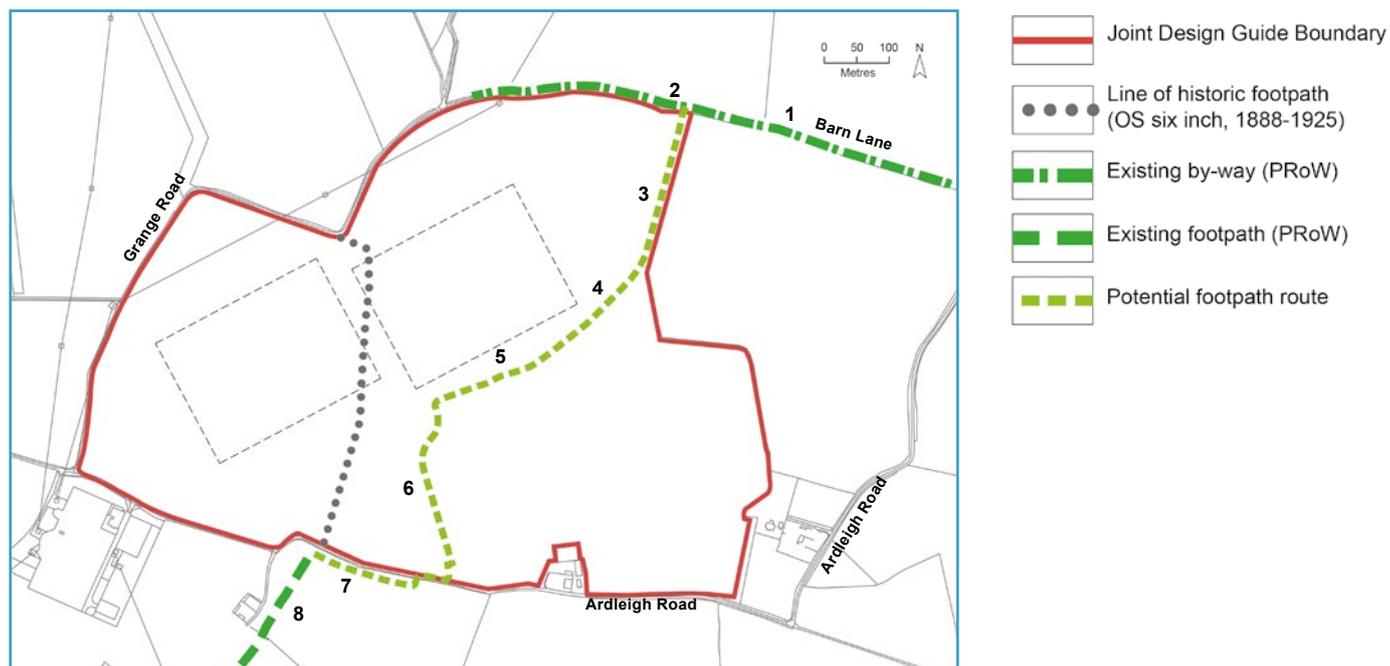


Plate 04: Potential footpath route through the OnSSs site.

Please provide any further comments here:



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