Great British ENERGY | NUCLEAR

The Gwyndod Project

Programme Document – Report for the Planning Inspectorate

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Abbreviations

DESNZ	Department for Energy Security and Net Zero
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
GBE-N	Great British Energy – Nuclear
GHG	Greenhouse Gas
HRA	Habitats Regulations Assessment
IACC	Isle of Anglesey County Council
JLDP	Joint Local Development Plan
LNR	Local Nature Reserve
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
NRW	Natural Resources Wales
oCEMP	Outline Construction Environmental Management Plan
oDEMP	Outline Decommissioning Environmental Management Plan
oLEMP	Outline Landscape and Ecological Management Plan
oOEMP	Operational Environmental Management Plan
PPA	Planning Performance Agreement
PINS	Planning Inspectorate
SAC	Special Area of Conservation
SoS	Secretary of State

SMR	Small Modular Reactor
SSSI	Site of Special Scientific Interest
TCPA	Town and Country Planning Act 1990

1. Introduction

Document Purpose

This Programme Document has been prepared by Great British Energy – Nuclear (the Applicant) in connection with the Gwyndod Project.

This document has been prepared taking account of the Nationally Significant Infrastructure Projects: 2024 Pre-application Prospectus[1] ("the Prospectus") and the Programme Document template (October 2025) published by PINS. The Applicant also recognises that the Prospectus is due to be updated in Summer 2027 to reflect legal changes to the Planning Act 2008 and pilot schemes with selected applicants.

Previous iterations of this Programme Document have been issued to the Planning Inspectorate as recorded in the table below.

Version	Date of Issue to the Planning Inspectorate
0.1	18 May 2026
0.2	10 September 2026
0.3	16 November 2026

Document Structure

The remainder of this document is structured as follows:

- **Section 2** – Background to the Project
- **Section 3** – The Planning Inspectorate's Pre-Application Service
- **Section 4** – The Pre-Application Programme
- **Section 5** – Main Issues for Resolution
- **Section 6** – Approach to Stakeholder Engagement
- **Section 7** – Pre-Application Risks

[1] Nationally Significant Infrastructure Projects: 2024 Pre-application Prospectus

2. Background to the Project

The Applicant

The Applicant is Great British Energy – Nuclear (GBE-N), an executive non-departmental public body sponsored by the Department for Energy Security and Net Zero (DESNZ). GBE-N was launched as part of the UK Government's Powering Up Britain plan (March 2023) to operate as a separate body responsible for driving the delivery of new nuclear projects in the UK. The first priority of GBE-N is to deliver a Small Modular Reactor programme in the UK, supporting the government's clean power mission and boosting energy security.

GBE-N is responsible for preparing and submitting the Development Consent Order (DCO) application. The application will be submitted to the Secretary of State (SoS) for Energy Security and Net Zero, who is the government minister responsible for making the final decision on whether the project should be afforded a DCO.

GBE-N has statutory powers under the Energy Act 2023 to facilitate the design, construction, commissioning and operation of nuclear energy generation projects for the purpose of furthering any policies published by His Majesty's Government.

Further detail on GBE-N and its role is available here: Great British Energy – Nuclear

Small Modular Reactor technology

The UK Government has committed substantial investment to the development and deployment of Small Modular Reactors (SMRs), recognising their strategic importance in enhancing energy security, accelerating decarbonisation and supporting economic growth through the creation of skilled employment and domestic supply chains.

SMR technology represents a scalable and deployable nuclear technology with significant potential to support the UK's transition to secure, reliable and low-carbon energy systems. SMRs are expected to be quicker to build than larger capacity 'gigawatt reactor' nuclear plants (like Sizewell C and Hinkley Point C) given the modular design and construction approach, and with costs also expected to reduce as SMR units are delivered.

GBE-N selected Rolls-Royce SMR as its technology partner to deliver several SMR units in the UK, with the announcement made in June 2025 and contracts signed between the parties in April 2026. Further detail on Rolls-Royce SMR technology is available here: https://www.rolls-royce-smr.com/.

Project Overview

In November 2025, GBE-N announced that the Wylfa site had been selected to host the UK's first Small Modular Reactor project based on the Rolls-Royce SMR technology. GBE-N now holds a 999-year lease for the Wylfa site. The GBE-N project was officially named the Gwyndod Project in June 2026 by the local community.

The main site is located adjacent to the Wylfa Power Station, near Cemaes, on the north coast of the Isle of Anglesey in North Wales ("the Site"). The Site lies within the administrative area of Isle of Anglesey County Council ("IACC") (**Figure 1**).

The Site covers approximately 225 hectares and lies to the immediate south and east of the Wylfa Power Station that is currently being actively decommissioned. The Site lies within a predominantly rural coastal setting, characterised by grazed grassland fields, some areas of historic development and towards the south and to the eastern boundary, ground elevation rises forming conical to linear hills/ridges.

Nearby settlements include Tregele, Cemaes and Cemlyn to the east, south and south-west of the Site, , with smaller villages and hamlets in the surrounding area. The Site is also located both on and immediately adjacent to several designated ecological sites, including several Sites of Special Scientific Interest (SSSIs) and a Local Nature Reserve (LNR), and features of historical and archaeological activity are located within the Site.

The Site was previously promoted by Horizon Nuclear Power to host the Wylfa Newydd Project, comprising a Nationally Significant Infrastructure Project (NSIP) for a new nuclear development based on two UK Advanced Boiling Water Reactors and other on- and off-site ancillary and associated developments. The DCO application for the Wylfa Newydd Project was withdrawn in February 2021, but extensive work was undertaken over several years including TCPA consents for early works, site assessments and environmental studies. The Applicant has

drawn upon historic data published as part of the Wylfa Newydd Project to inform its understanding of the main site and its engagement with stakeholders.

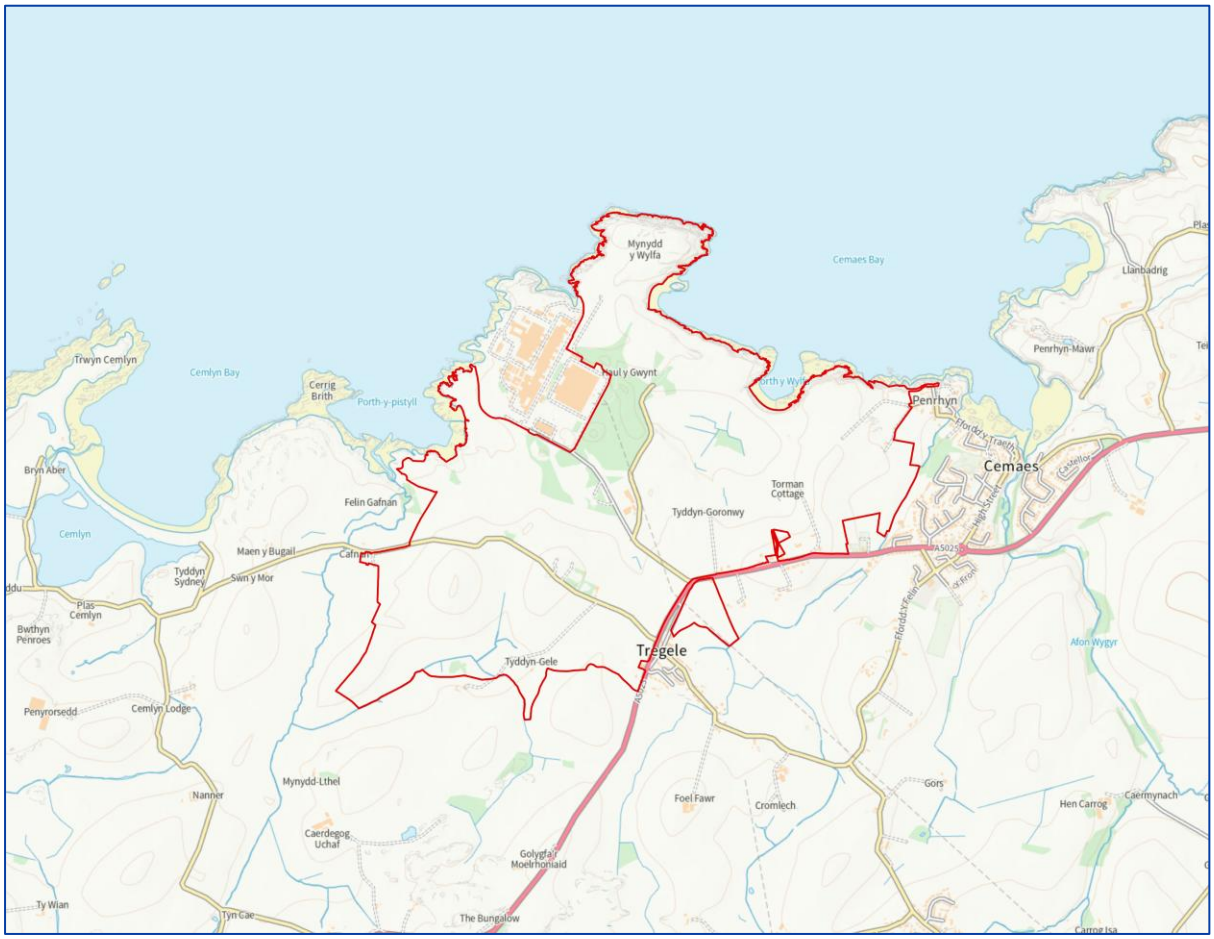


Figure 1: land under control by Great British Energy – Nuclear
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The Gwyndod Project comprises the delivery of a nuclear new build development, initially comprising three Rolls-Royce SMR units with each reactor having a capacity of 470MWe.

The Project would qualify as an NSIP under Section 15(3A) of the Planning Act 2008, being a (nuclear) generating station located in Wales, with a capacity of over 350MW. A DCO is required to construct, operate, maintain and decommission the Project and the relevant Secretary of State is responsible for determining an application for development consent.

The Project is at an early stage of design development but at this stage, is expected to include:

- **Power Station Permanent Development** – the proposed new nuclear power station, being the permanent final development at the main development site, would include the reactor units, cooling water structure, spent fuel storage, site access and associated landform changes, landscaping and drainage infrastructure;
- **Power Station Temporary Development** – temporary facilities and works would be required for construction purposes at the main development site, such as haul roads, construction laydown areas, drainage and bulk earthworks;
- **Off-Site Power Station facilities** – these are permanent facilities away from the main development Site which are essential for the safe operation of the power station, such as a marine off-loading facility and an emergency response centre;
- **Associated Development** – developments will be required on and off-site to support the construction and/or operation of the power station (i.e. permanent and temporary development) and include park and

ride facilities for construction workers, a logistics centre to manage freight movements, Project-provided worker accommodation and on- and off-line highway improvements.

Planning Policy Context

The DCO application would be determined in accordance with Section 104 of the Planning Act 2008, with the following relevant National Policy Statements (NPSs) in place for the Project:

- Overarching NPS for Energy (December 2025) (EN-1); and
- NPS for Nuclear Energy Generation (December 2025) (EN-7).

The NPS for Nuclear Power Generation (July 2011) (EN-6) identified the Site as potentially suitable for the deployment of a nuclear power station before the end of 2025. Whilst NPS EN-6 does not have effect under Section 104, EN-7 (para 1.7.4) explains that EN-6 will remain a relevant consideration for DCO applications for Sites listed in EN-6.

Whilst the NPSs take primacy for setting out planning policy for NSIPs, the following policy documents will be important and relevant to the SoS's decision (as prescribed under Section 104(2)(d)) and would inform any Local Impact Report (as prescribed under Section 104(a)(b)):

- Planning Policy Wales (Edition 12) (February 2024);
- Future Wales: The National Plan 2040 (February 2021); and
- Anglesey and Gwynedd Joint Local Development Plan (JLDP) (2017).

IACC has started the process of reviewing its adopted JLDP. The new Local Development Plan will cover the period between 2024 and 2039. GBE-N is engaged in the new Local Plan process, having submitted representations to IACC's 'Vision, Objectives and Options' consultation which closed in March 2026.

Licenses or Non-Planning Consents

One of the principal consents for the Gwyndod Project (comprising the principal development and any associated developments) will be the DCO, providing the legal powers and rights to construct, operate and maintain the Project, and control the way in which these are carried out. The DCO will be supplemented by other permits, consents and licences. At this stage, these permits, consents and licenses are expected to include:

- Nuclear Site Licence;
- Combustion Activity Permit(s);
- Water Discharge Activity permit(s);
- Radioactive Substances Activity Permit;
- Marine Licence;
- Hazardous Substances Consent(s);
- Relevant European Protected Species Licence(s);
- Flood Risk Activity permit(s); and
- Land Drainage Consent(s).

GBE-N also intends to submit one or more applications for planning permission for early works to IACC under the Town and Country Planning Act 1990, prior to submission of the DCO application. The scope of these early works is under consideration by the Project team, and in due course will be discussed with the Host Authority and Planning Inspectorate. This application(s) would facilitate early project works, such as site preparation and clearance works, to enable main construction activities.

3. The Planning Inspectorate's Pre-Application Service

Level of Service

The Applicant has agreed with PINS to proceed with the Tier 2 Standard Service for the period up to Q1 2027, with the project neither '*exceptionally straightforward nor exceptionally complex*', as highlighted in the Pre-application Prospectus. This will be kept under review between the parties.

	Tier 2 – standard service [at least initially]
Whether the applicant has experience of using the PA2008 process	• The Applicant's Team has a wealth of PA2008 experience, including in connection with nuclear new build projects, the site itself and the previously promoted Wylfa Newydd Project
Whether the project's system of stakeholders, including affected local authorities, have experience of the PA2008 process	• The Council (IACC) has experience of the consenting regime, including the scale and complexity.
The scale and location of the project	• The consenting of a comparable scale and complexity was taken to an advanced stage at the site previously.
The complexity of the project issues and likely levels of agreement/disagerement between the applicant and other key stakeholders, including affected statutory bodies and local authorities, at the point of submission	• There is already clarity on the potential issues, which acts as a basis to enable ongoing dialogue with stakeholders
The extent to which the project or approach to seeking consent is novel	• There is a history of promoting the site for a nuclear new build project and nuclear new build projects have been consented and are being constructed elsewhere in the UK.
Whether the applicant is seeking a fast-track procedure.	• No, as understood PINS are not allowing projects of this scale to be fast-tracked but helpful to have that confirmed.
Whether or not a relevant national policy statement is designated, or otherwise the status of the designated national policy statement	• NPS EN-7 is designated and the site also benefits from previous site specific support under NPS EN-6.
The level of local and national interest in a project	• Expecting predominantly local level interest, close to the main site, across the island and along key transport nodes.

4. The Pre-Application Programme

The key DCO consenting milestones are currently as follows:

- Stage 1 Consultation – Q1 2027;
- EIA Scoping Report to be submitted – Q2 2027, with the EIA Scoping Opinion to be received 6 weeks following submission of the Report;
- Stage 2 Consultation – Q3/Q4 2027;
- Submission of application for development consent – Q4 2028.

Details on the approach to engagement to complement the key consultation milestones is detailed in **Section 6** of this document.

In developing the Project programme, GBE-N is mindful of the forthcoming expected changes to the Environmental Impact Assessment Regulations, with the expected transition to Environmental Outcome Reports by the end of 2027. The programme will continue to be kept under review in light of any forthcoming changes.

The DCO Timeline



5. Main Issues for Resolution

This section identifies the Applicant's view on key considerations that may require resolution with stakeholders throughout the pre-application stage and the associated next steps. However, it should be noted that the Project is at a very early stage and, therefore, this list may be subject to additional items.

As explained in **Section 2**, the Applicant has reviewed and drawn information from historic data published as part of the Wylfa Newydd Project to inform its understanding of the main development Site and engagement with stakeholders.

The Applicant will be producing Statements of Common Ground with key consultees to be submitted as part of the DCO application.

Table 1 – Main Issues for Resolution

Topic	Main Issues	Proposed Activities
Air Quality and Emissions	During the construction phase, emissions associated with the movement of vehicles, dust, as well as combustion emissions from on-site power generation, will be key considerations within the Environmental Impact Assessment (EIA). During the operational phase, emissions associated with the movement of vehicles and other emissions that may have the potential to impact human health and ecological assets will be key considerations within the EIA.	A full suite of air quality surveys and associated modelling work is planned to inform the EIA. Engagement with stakeholders, including Natural Resources Wales and Isle of Anglesey County Council, will also be undertaken. Potential impacts and mitigation to reduce and avoid these impacts will be outlined within the Environmental Statement (ES). Mitigation measures will be secured through the Outline Construction Environmental Management Plan (oCEMP) and other control documents.

Topic	Main Issues	Proposed Activities
Climate Change Adaptation and Resilience	A degree of climate change is expected over the lifetime of the Project due to historic greenhouse gas emissions and the lag in the climate system. Climate hazards that have the potential to impact the Project across the construction, operation and decommissioning phases are likely to include: ▪ Increasing temperatures and extreme temperature events such as heatwaves. ▪ Potential for prolonged dry spells and heavy rainfall in summer on dry ground causing flooding. ▪ Exacerbated ground movement and stability impacts from saturated or dry ground conditions. ▪ Increasing frequency and intensity of high winds, storm events, lightning strikes. Potential impacts to the Project are likely to manifest in damage or degradation of assets, increased maintenance, repair or replacement.	As part of the DCO, a climate vulnerability assessment will be completed to support the scoping stage. Engagement with stakeholders will be undertaken, including Isle of Anglesey County Council. Any mitigation measures will be secured through the relevant control documents.
Greenhouse Gas Emissions	The benefits of this energy Project, in Greenhouse Gas (GHG) terms, need to be understood in the context of a whole life assessment of the asset, accounting for activities that give rise to GHG emissions in its construction, operation and future decommissioning.	As part of the DCO process a whole life carbon assessment will provide a means of quantifying the activities giving rise to GHG emissions and evaluating their significance in the context of UK GHG emissions. Engagement with stakeholders will be undertaken, including IACC. Potential impacts and mitigation to reduce and avoid these impacts will be outlined within the ES. Mitigation measures will be secured through the oCEMP, Outline Operational Environmental Management Plan (oOEMP) and Outline Decommissioning Environmental Management Plan (oDEMP), and any other relevant control documents.

Topic	Main Issues	Proposed Activities
Terrestrial, Freshwater and Marine Ecology	There are several statutory and non-statutory ecologically designated sites associated with the main site, including Cae Gwyn SSSI, Tre'r Gof SSSI, Bae Cemlyn/Cemlyn Bay Special Area of Conservation (SAC), Gogledd Môn Forol/North Anglesey Marine SAC and Morwenoliaid Ynys Môn / Anglesey Terns Special Protection Area. Aquatic and terrestrial species may experience direct or indirect effects depending on where physical development occurs. Aquatic and terrestrial ecology could be affected by activities such as water abstraction, discharges, noise and vibration, siltation, pollution run-off, and increased vessel traffic.	A full suite of ecological surveys and associated impact assessment work will be undertaken to inform the EIA. Engagement with stakeholders including NRW and IACC will be undertaken. A Water Framework Directive assessment will also be prepared in consultation with NRW. Potential impacts and mitigation to reduce and avoid these impacts will be outlined within the ES. Mitigation measures will be secured through the relevant control documents, which are likely to include (but not be limited to) the oCEMP and Outline Landscape and Ecological Management Plan (oLEMP).
Ground Conditions	The extent and magnitude of contaminated ground (soil, gas and groundwater) will be assessed to enable consideration of materials suitable for reuse. Contamination of soil and groundwater may need to be remediated if quantities exceed values prior to construction start. Site investigations will be undertaken, taking account of previous investigations from the Wylfa Newydd Project, including the use of exploratory boreholes.	A full suite of surveys and modelling work will be undertaken to inform the EIA. Engagement with stakeholders will be carried out, including with IACC. Potential impacts and mitigation to reduce and avoid these impacts will be outlined within the ES. Mitigation measures will be secured through the oCEMP.
Groundwater	A combination of desk-based studies, ground investigations and numerical modelling will be undertaken to establish the current groundwater conditions. The main considerations relate to possible impacts on potential receptors because of excavation and any dewatering activities.	A runoff and recharge model will be developed to quantify the site water balance and to estimate the degree of groundwater recharge. Engagement with stakeholders will be undertaken, including IACC. Potential impacts and mitigation to reduce and avoid impacts will be outlined in the ES. Mitigation measures will be secured through the oCEMP.

Topic	Main Issues	Proposed Activities
Historic Environment	There are several designated heritage assets in the vicinity of the Site, including Cestyll Gardens, Felin Gafnan Corn Mill, St Patrig's Church, Capel Soar Standing Stone, Siop Soar, Black Lion Inn and Melin Ty'n y Felin. Taking account of archaeological investigations under the Wylfa Newydd Project, further on-site investigations and mitigation is required across the main development site.	Assessments will consider the potential for effects resulting from direct loss of, or damage to deposits of archaeological and paleoenvironmental interests within the site and effects resulting from change in the settings of designated heritage assets. Engagement with stakeholders, including Heneb and Cadw, will be undertaken. Mitigation will be identified in the ES and secured in the oCEMP, oOEMP and oDEMP.
Hydrology, Water Quality and Flood Risk	The main site is at low risk from fluvial flooding. Potential key issues include a change in flood risk on and off site and a change in surface water quality during construction, operational and decommissioning phases.	Any potential impacts on hydrology, water quality and flood risk will be identified, minimised and mitigated through the design process, which will be reported in the ES. Detailed hydraulic modelling of the area will continue to be progressed to inform the design. Engagement with stakeholders will be undertaken, including NRW and IACC. Mitigation will be identified in the ES and secured in the oCEMP, oOEMP and oDEMP for the protection of water environment and prevention of increased flood risk.
Landscape and Visual	Potential key issues include the development's effect on the Anglesey Area of Outstanding Natural Beauty and the North Anglesey Heritage Coast, as well as effects on non-designated wider landscapes.	An assessment of the landscape and visual effects of the Project will be carried out, including reference to the relevant landscape character assessments and associated studies reported in the ES. The visual impacts from artificial light, steam and smoke will also be assessed. Engagement with stakeholders, including IACC, will be undertaken. Mitigation will be identified in the ES and secured in the oLEMP and Works Plans.

Topic	Main Issues	Proposed Activities
Noise and Vibration	The noise levels around the Site are low, therefore the introduction of noise generating sources has the potential to result in adverse impacts on nearby sensitive receptors. Consequently, mitigation measures will need to be considered to minimise impacts as far as possible. Potential noise sources include construction noise generated by activities on site; construction road traffic noise from vehicles; construction noise generated by off-site development; operational noise from on-site and off-site sources.	A full suite of noise and vibration surveys and associated modelling work is planned to inform the EIA. Engagement with stakeholders will be undertaken, including engagement with IACC. Mitigation will be identified in the ES and secured in the oCEMP, oOEMP and oDEMP.
Conventional Waste and Excavated Materials	Construction waste, as well as arisings from excavated materials, are expected to be generated. There is also likely to be waste associated with the operational phase.	The Project will have regard to the waste hierarchy when developing its waste management strategy. Engagement with stakeholders including IACC and NRW will be undertaken. Mitigation will be identified in the ES and secured in the oCEMP.
Socio-economics (including health)	Initial work has started to understand the broad assumptions that will underpin the assessment (e.g. workforce numbers and profile, along with what skills are available locally).	The Project will work with stakeholders, including IACC, to identify opportunities for the Project as well as other stakeholders to maximise the transformational opportunities that arise from projects of this nature, whilst working to identify any mitigation measures. Mitigation will be identified in the ES and secured as appropriate through the necessary control documents (e.g. legal agreement and action plans).
Welsh Language and Culture	Potential key issues include the Project's impact on the Welsh language, culture and traditions.	A Welsh Language Impact Assessment will be carried out to understand the Project's impact on the five key aspects of community life, including (1) population characteristics, (2) quality of life, (3) economy, (4) infrastructure supply and education, and (5) social and cultural aspects. The Project will develop a strategy for considering Welsh language and culture through its lifetime, including the preparation of the DCO application and associated pre-application engagement and consultation.

Topic	Main Issues	Proposed Activities
Transport	The existing road network in Anglesey is predominantly rural. The Gwyndod Main Site is in a relatively remote position and therefore, as a result, the current infrastructure is limited. This is a key issue for the Project. The Project will also seek to maximise the use of non-road-based transport modes, as far as practicable and appropriate. This relates to both workforce and material movements.	A transport model will be developed, which will be used to identify the measures needed to manage and mitigate the effects of the Project. Engagement will be carried out with key stakeholders, including Welsh Government and IACC. The Project will bring forward on and offline highway improvements to the existing road network, to reduce the Project's impacts.
Other Considerations (e.g. radiological)	The Project is at an early stage of development and therefore the Applicant is at an early stage of scoping some of the other matters that will be considered as part of the DCO application.	Engagement will be carried out with key stakeholders including IACC, as well as the regulators and others to identify the appropriate scope of the ES and the appropriate control documents to secure the necessary commitments and controls.

6. Approach to Stakeholder Engagement

Engaging with Local Authorities

The Applicant has commenced engagement with IACC as the Host Authority and has agreed a Planning Performance Agreement (PPA) for the Project.

A structured approach to engagement on the key consenting matters of relevance to IACC is due to be set up, albeit noting that GBE-N is at a very early stage and the engagement will need to flex around the key programme milestones.

GBE-N will also commence engagement with other authorities, namely community and town councils, Gwynedd Council and Conwy County Borough Council as well as Welsh Government, HMG Wales Offices and HMG.

Engaging with Statutory Bodies

Early engagement has been held with Natural Resources Wales, the Office for Nuclear Regulation and some other key statutory bodies. This has been very strategic, given the very early stages of the project and following the launch of the Stage 1 consultation, a programme of engagement will be established with each organisation on the key consenting matters of relevance to them.

Table 2 sets out the parties that the Applicant intends to engage with at this stage.

Table 2: Stakeholder Engagement

	Direct Engagement (including technical meetings)	Written Briefings	Individual Communications (in writing and/or meetings)	Newsletters	Briefings ahead of Key Milestones Activities	Project Website
Planning Inspectorate	✓	✓	✓		✓	
IACC	✓	✓	✓		✓	
Welsh Government	✓	✓	✓		✓	
Neighbouring Authorities	✓	✓	✓		✓	
Prescribed Consultees (Technical)	✓	✓	✓		✓	
Prescribed Consultees (Community)	✓	✓	✓		Community and town councils	
Those with an interest in land	✓		✓	✓		✓
Community	✓			✓		✓
Political Stakeholders (e.g. members of	✓	✓	✓	✓		✓

Parliament and Members of the Senedd)						

7. Pre-Application Risks

The Applicant undertakes a regular risk review – both in terms of a risk identification process that includes defining the Project scope, identifying potential risks, assessing the likelihood and impact of each risk, and developing mitigation plans for the most critical risks, as well as a risk assessment process that evaluates the impact of identified risks, whereas risk identification focuses on the likelihood of risks occurring.

This workstream includes: the maintenance of the Project risk registers across the Project (noting the interfaces between the various workstreams including engineering, consenting); involvement of suitably qualified and experienced workstream leads (including DCO, Communications and Permitting) in the process and being responsible for identifying and managing any mitigation; and regular reporting.

Measures that will be used throughout the consenting process to manage risk will include:

- Ensuring that the design detail that will underpin the consenting process is received in sufficient time to achieve the consenting milestones.
- Timely engagement with key stakeholders to agree survey and assessment requirements, having regard to the DCO as well as other related consenting requirements.
- Working closely with landowners to minimise delays to timely surveys, including ensuring land access and related agreements.
- Monitoring of and engagement with other developers to identify any additional emerging schemes in the local area and work to manage any potential interfaces, including consideration of cumulative effects.



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