

Connah's Quay Low Carbon Power

Environmental Statement Volume IV Appendix 2-A: Transboundary Screening Matrix

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1. Transboundary Effects Matrix

1.1.1 Regulation 32 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) (Ref 1) requires the consideration of any likely significant effects on the environment of European Economic Association (EEA) States.

1.1.2 Guidance upon the consideration of transboundary effects is provided in Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process (Ref 2).

1.1.3 **Table 1** provides the screening matrix for transboundary effects for the Connah's Quay Combined Cycle Gas Turbine (CCGT) fitted with Carbon Capture Plant (CCP) (hereafter referred to as the Proposed Development), taking guidance from Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process (Annex 1) (Ref 2). **Table 1** considers the potential for effects to occur on European Economic Area (EEA) States and is based on the information and assessment contained in the **Environmental Statement (EN010166/APP/6.1-6.4)**.

1.1.4 In summary, **Table 1** concludes that the Proposed Development is not likely to give rise to any transboundary effects.

Table 1: Transboundary Effects Screening Matrix

Criteria and Relevant Consideration	Commentary with regard to the Proposed Development
Characteristics of the development: <ul style="list-style-type: none">• size of development;• use of natural resources;• production of waste;• pollution and nuisance;• risk of accidents; and• use of technologies.	<p>The Proposed Development will be designed to operate with post-combustion CCP plant installed such that the plant can be operated as a dispatchable, low-carbon generating station. The Order limits encompass a total area of approximately 105 ha encompassing the natural gas, carbon dioxide (CO₂), electricity and water connections and routes for abnormal indivisible loads that may be required.</p> <p>The resources required for the construction of the Proposed Development are likely to be obtained from the global to local scale markets and where reasonably practicable, materials would be obtained locally. No waste, nuisances or accidents are likely to extend beyond the border of the UK. No novel technologies are proposed that have potential for transboundary effects.</p>
Location of development and Geographical area:	The Proposed Development is located approximately 0.6 kilometres (km) north-west of Connah's Quay in Flintshire, north-east Wales. The Main Development Area is centered at national grid

Criteria and Relevant Consideration	Commentary with regard to the Proposed Development
<ul style="list-style-type: none"> • What is the existing use? • What is the distance to another EEA state? (Name EEA state)? • What is the extent of the area of a likely impact under the jurisdiction of another EEA state? 	<p>reference 327347, 371374, and the Proposed Development is wholly within the administrative area of Flintshire County Council (FCC). The Order limits, are shown on Figure 3.1: Order Limits (EN010166/APP/6.3).</p> <p>The closest EEA boundary to the Order limits is the Republic of Ireland, located approximately 185 km to the west of the Proposed Development. No impacts are likely to extend beyond the jurisdiction of the UK.</p>
<p>Environmental Importance</p>	<p>The Order limits overlap the following international nature conservation designations:</p> <ul style="list-style-type: none"> • The Dee Estuary Special Protection Area (SPA) / Ramsar; and • The Dee Estuary/Aber Dyfrdwy Special Area of Conservation (SAC). <p>The following international nature conservation designations are located within 5 km of the Construction and Operation Area:</p> <ul style="list-style-type: none"> • The River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC; • Deeside and Buckley Newt Sites SAC; and • Halkyn Mountain/Mynydd Helygain SAC <p>Features of the Dee Estuary SPA, including Curlew, are known to migrate to and over EEA states.</p> <p>The receptor for the greenhouse gas (GHG) assessment is the global climate.</p>
<p>Potential impact and carrier:</p> <ul style="list-style-type: none"> • By what means could impacts be spread? 	<p>Potential impacts and the potential for likely significant effects on relevant qualifying features of internationally designated sites (referred to as Habitat Sites) are considered and presented within the Report to Inform Habitats Regulations Assessment (EN010166/APP/6.12). This concludes that following mitigation there would be no adverse effects on integrity of any international nature conservation designation.</p> <p>The Proposed Development is partially located within and in close proximity to a Ramsar site, SPA, and SAC. This natural environment is juxtaposed with an existing industrialised area of Flintshire, including the existing Connah's Quay Power Station. The Proposed Development forms part of a long-term replacement</p>

Criteria and Relevant Consideration	Commentary with regard to the Proposed Development
	strategy for the existing Connah's Quay Power Station within the Main Development Area. It is not anticipated that there is potential for transboundary effects (and therefore any effects on important environmental receptors beyond the UK).
Extent: <ul style="list-style-type: none"> • What is the likely extent of the impact? 	The only potential transboundary environmental impact is considered to arise from GHG emissions, which would be spread by atmospheric processes. It is recognised that GHG emissions contribute to changes to climate that occur on a global scale.
Magnitude: <ul style="list-style-type: none"> • What will the likely magnitude of the change in relevant variables relative to the status quo, taking into account the sensitivity of the variable? 	The impact of GHG emissions is considered irreversible within human lifetimes, however, the Proposed Development seeks to align with and contribute positively to the UK Government's target to achieve net-zero emissions by 2050.
Probability: <ul style="list-style-type: none"> • What is the degree of probability of the impact? • Is the impact likely to occur as a consequence of the normal conditions or exceptional situations, such as accidents? 	The likely GHG emissions generated by the Proposed Development as part of the Environmental Impact Assessment (EIA) have been calculated and reported in Chapter 20: Climate Change (EN010166/APP/6.2.22) . In line with relevant guidance, the Proposed Developments emissions has been contextualised against the UK national and Welsh carbon budgets as proposed by the Climate Change Committee (CCC), agreed by government, and ratified by parliament and Senedd Cymru, respectively.
Duration: <ul style="list-style-type: none"> • Is the impact likely to be temporary, short-term or long-term? • Is the impact likely to relate to the construction, operation or decommissioning phase of the activity? 	In any event, the global nature of GHG impacts means that it is not possible to apportion or identify any impact in GHG emissions in terms of environmental effects on any particular country or state. Due to the distance to the nearest EEA State, it is considered unlikely that any impacts that arise from the Proposed Development would generate any significant effect to any receptor in any other EEA State including those impacts resulting from GHG emissions from the Proposed Development, as the environmental receptor in this regard is the global atmosphere, rather than the environment of any country or state or group of countries or states. The GHG emissions are considered at a global level and so are captured by the assessment in any event.
Frequency: <ul style="list-style-type: none"> • What is likely to be the temporal 	

Criteria and Relevant Consideration	Commentary with regard to the Proposed Development
pattern of the impact?	The climate change impacts have been assessed and are reported in Chapter 20: Climate Change (EN010166/APP/6.2.20) .
Reversibility: <ul style="list-style-type: none"> Is the impact likely to be reversible or irreversible? 	GHG emissions are probable and would occur as a result of normal operation of the Proposed Development, noting that the Proposed Development will be designed to capture CO ₂ emissions. CO ₂ emissions would result from both the construction and operational phases. The impact to the global atmosphere long-term would be limited, as the Proposed Development is intended to contribute to the UK's long-term GHG emissions reduction targets.
Cumulative impacts: <ul style="list-style-type: none"> Are there other major developments close by? 	Schemes within 15 km of the Proposed Development have been considered in Chapter 24: Cumulative Effects (EN010166/APP/6.2.24) , which concludes there would be no significant cumulative effects. On this basis, it is not anticipated that there is potential for likely significant cumulative transboundary effects.
1.1.5	Taking into account the potential pollution impact pathways through air, land and water, and the effects predicted to arise from the Proposed Development, set out in Chapter 8: Air Quality (EN010166/APP/6.2.8) , Chapter 11: Terrestrial and Aquatic Ecology (EN010166/APP/6.2.11) , Chapter 13: Water Environment and Flood Risk (EN010166/APP/6.2.13) and the Report to Inform Habitats Regulations Assessment (EN010166/APP/6.12) within their respective spatial scopes, the likelihood of significant effects on the environment of another EEA state is considered negligible. Therefore, significant transboundary effects associated with the Proposed Development are not anticipated.
1.1.6	As set out in the Scoping Opinion (Appendix 1-B: Scoping Opinion (EN010166/APP/6.4)), the PINS scoping exercise concluded, on the basis of the information provided by the Applicant at EIA Scoping stage, that the Proposed Development is not likely to have a significant effect either alone or cumulatively on the environment in any EEA state and that the likelihood of transboundary effects resulting from the Proposed Development is so low that it does not warrant the issue of a detailed transboundary screening. Nonetheless, the Applicant has prepared this screening matrix to inform the Application and considers that this updated Transboundary Screening matrix accords with PINS' scoping exercise.

References

Ref 1. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/572). London: HMSO. Available at: <https://www.legislation.gov.uk/uksi/2017/572/contents> (Accessed 14/02/25)

Ref 2. Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process. Available at: [Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process - GOV.UK](https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-on-transboundary-impacts-and-process) (Accessed 14/02/25).

