



Immingham Green Energy Terminal

TR030008

Volume 6

6.4 Environmental Statement Appendices

Appendix 19.A: Greenhouse Gas Assessment

Planning Act 2008

Regulation 5(2)(a)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

September 2023

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

Immingham Green Energy Terminal Development Consent Order 2023

6.4 Environmental Statement Appendices Appendix 19.A: Greenhouse Gas Assessment

Regulation Reference	APFP Regulation 5(2)(a)
Planning Inspectorate Case Reference	TR030008
Application Document Reference	TR030008/APP/6.4
Author	Associated British Ports
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Version	Date	Status of Version
Revision 1	21 September 2023	DCO Application

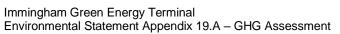






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Additional GHG Mitigation Options

1.1 Introduction

- 1.1.1. This appendix presents the results of the Greenhouse Gas ("GHG") assessment for the construction and operation phase of the Project in the form of a GHG Assessment mitigation and significance summary table. It should be read in conjunction with Environmental Statement Chapter 19: Climate Change [TR030008/APP/6.2]).
- 1.1.2. The tables below present the potential GHG impacts on climate associated with each phase of the Project, from construction through operation. The examples of mitigation measures to reduce the likely effects of climate change from the different phases of the Project are provided. Mitigation measures related to the construction phase are included within the **Outline Construction**Environmental Management Plan (Outline CEMP) [TR030008/APP/6.5] which is secured by a Requirement of the draft DCO [TR030008/APP/2.1].

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Table 1 GHG Assessment mitigation and significance summary – Construction phase*

Potential impacts on the Climate	Mitigation measures	
Increased emissions contributing to climate change	Measures to reduce embodied carbon in construction materials. Examples include:	
	- Prioritising sourcing secondary / recycled materials, particularly for materials with energy-intensive processing (e.g., green steel)	
	- Utilising locally-sourced products and those with higher recycled content wherever feasible	
	 Incorporating recycled content into concrete / replacing cementitious materials with secondary materials (e.g., PFA, GGBS, silica, limestone fines) 	
	- Designing for minimal waste creation	
	- Reusing site-won materials wherever possible, to minimize the use of natural resources and unnecessary materials (e.g., reclaim waste from enabling works as aggregates/sub-base)	
	Other measures that would reduce construction-related emissions include:	
	- Liaising with construction personnel to implement staff minibuses and/or car sharing options	
	- Implementing a travel plan to reduce the volume of construction staff trips to the Project, and identify efficiencies to reduce single-person trips	
	- Switching vehicles and plant off when not in use and ensuring all vehicles conform to current EU emissions standards	
	- Pursuing alternatively/renewably powered plant (e.g., biodiesel, hydrogen-powered, battery-powered)	
	- Conducting regular planned maintenance of all operating plant and machinery to optimize efficiency	

^{*}Significance criteria not included. IEMA Guidance specifies for Project to achieve Minor Adverse / Not Significant, it must apply good practice measures as presented in this table.

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Table 2 GHG Assessment mitigation and significance summary – Operational phase*

Potential impacts on the Climate	Mitiga	ation measures
Increased emissions contributing	Measu	ures to reduce carbon emissions during operation of the Project could include:
	-	Using best available techniques, as part of compliance with Environmental Permit including:
to climate	-	Plant advanced control and optimisation;
change	-	Use of insulation and superinsulation to minimise heat leak into the system;
	-	Predictive maintenance systems to ensure optimal compressor and equipment running;
	-	All plant at the installation to be subject to the preventative maintenance programme which ensures that operational efficiency is maintained;
	-	High integrity plan to minimise fugitive emissions;
	-	High plant reliability for optimal plant performance reducing start up and shut down;
	-	Use of energy efficient lighting; and
	-	Conducting regular planned maintenance of all operating plant and machinery to optimize efficiency

^{*}Significance criteria not included. IEMA Guidance specifies for Project to achieve Minor Adverse / Not Significant, it must apply good practice measures as presented in this table.

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