SLOUGH MULTIFUEL PROJECT

SLOUGH MULTIFUEL EXTENSION PROJECT

[PINS Ref: EN010129]

Environmental Statement
Volume 1-Non- Technical Summary

Non-Technical Summary

Application Document Reference: [6.1]

APFP Regulations 5(2)(a)

Revision Number: 1.0

Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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ENVIRONMENTAL IMPACT ASSESSMENT

ENVIRONMENTAL STATEMENT – NON-TECHNICAL SUMMARY

SEPTEMBER 2022

[Application Document Reference 6.1]
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SLOUGH MULTIFUEL PROJECT

AECOM

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GLOSSARY

Term	Abbreviation
2017 TCPA Consented Slough Multifuel Project	Consented Development
Above Ordnance Datum	AOD
Area defined by the DCO Application Site Boundary	The Site
Construction Environmental Management Plan	CEMP
Construction Traffic Management Plan	CTMP
Cooling Tower	CT
Copenhagen Infrastructure Partners	CIP
Development Consent Order	DCO
Development Consent Order Application	The Application
Environmental Impact Assessment	EIA
Environmental Statement	ES
Flue Gas Treatment	FGT
Financial Times Stock Exchange	FTSE
Greenhouse Gas	GHG
Heavy Goods Vehicle	HGV

Term	Abbreviation
Hectare	ha
Institute of Environmental Management Assessment	IEMA
Kilometre	Km
Local Nature Reserve	LNR
Local Wildlife Site	LWS
Megawatt	MW
Megawatt electric	MWe
Metre	m
National Planning Statements	NPS
Non-technical Summary	NTS
Planning Inspectorate	PINS
Preliminary Environmental Information Report	PEI Report
Slough Heat and Power site	SHP
Slough Multifuel Extension Project	Proposed Project
Slough Multifuel Limited	SMF
SSE Slough Multifuel Limited (SMF)	The Applicant
Town and Country Planning Act	TCPA
United Kingdom	UK
Waste Derived Fuel	WDF

CONTENTS

1.0 INTRODUCTION

1.1 Introduction

1.1.1 This document has been prepared on behalf of SSE Slough Multifuel Limited (the 'Applicant') and provides a Non-Technical Summary (NTS) of the Environmental Statement (ES) for the proposed Slough Multifuel Extension Project.

1.1.2 The Applicant has submitted an application for a Development Consent Order (DCO) to the Secretary of State for Business, Energy and Industrial Strategy for development consent ('the Application') for the extension of the consented Slough Multifuel Facility, an energy from waste electricity generating station, including associated development (the 'Proposed Project') increasing the efficiency and output of the consented Slough Multifuel Facility generating station with capacity up to 50 megawatts (MW) (the "Consented Development") which was originally consented in June 2017 under the Town and Country Planning Act 1990 ('TCPA') regime (Planning Ref. P/00987/024 and P/00987/025), to achieve up to 60MW peak electrical output (MWe). As the works result in the electrical output exceeding 50MWe, the Proposed Project requires development consent (granted in the form of a Development Consent Order (DCO)) with capacity up to 60 megawatts (MW) peak electrical output (MWe) (hereafter referred to as the 'Proposed Project').

1.1.3 A DCO is required for the extension as it falls within the definition and thresholds for a 'Nationally Significant Infrastructure Project' (a 'NSIP') under Sections 14(1)(a) and 15(1)(2)(a) to (c) of the Planning Act 2008, being the extension of an onshore electricity generating station in England which, when extended, will have a capacity of more than 50 megawatts ('MW'). The DCO, if made by the Secretary of State (SoS), would be known as 'The Slough Multifuel Extension Order 202[X]' (the 'Order').

1.1.4 The Proposed Project Site (the 'Site') lies entirely within the administrative boundary of Slough Borough Council, a unitary authority, and is located either side of Edinburgh Avenue within the Slough Trading Estate (National Grid Reference SU 953 814) approximately 2.5 kilometres north west of Slough Town Centre.

1.1.5 The Site extends to approximately 2.8 hectares in area and was acquired by SSE in 2008. It forms part of the original Slough Heat and Power Plant site. The consented Slough Multifuel Facility (the 'Consented Development'), which was originally consented in June 2017 under 'The Town and Country Planning Act 1990' (the 'TCPA') (Planning Permission Refs. P/00987/051 (being a Section 73 variation of P/00987/024 and P/00987/035) and P/00987/025, P/00987/052 and P/19876/000), is currently being constructed at the Site. Construction of the Consented Development at the Site is well advanced and is currently expected to be completed by Quarter 4 2024.

1.1.6 The Site is shown on **Figure 1.1 [Application Document Reference 6.3.1 – Proposed Project Location (Plan)]** and **Figure 1.2 [Application Document Reference 6.3.2 - Proposed Project Location (Aerial)]** of this ES.

1.1.7 Further information on the Proposed Project can also be found on the project website:

- https://www.ssethermal.com/energy-from-waste/slough-multifuel

1.2 The Applicant and Author of the ES

1.2.1 The Applicant, SSE Slough Multifuel Limited ('SMF'), is a 50:50 joint venture between SSE Thermal and Copenhagen Infrastructure Partners ('CIP').

1.2.2 SSE Thermal, part of the FTSE-listed SSE plc, is a leading developer, owner and operator of flexible generation, energy-from-waste, and energy storage assets, with over 600 direct employees across the UK and Ireland. SSE Thermal's vision is to become the leading provider of flexible thermal energy in a net-zero world. SSE Generation Limited was granted planning permission in June 2017 to construct the Slough Multifuel Facility (the 'Consented Development') at the Site. SSE currently operates the existing Slough Heat and Power Plant at the Slough Trading Estate through a company called Slough Heat and Power Limited.

1.2.3 CIP was founded in 2012 and is a fund management company specialising in offering tailor made investment in energy infrastructure assets globally, in particular within the renewable energy sector. CIP is a renewable market pioneer with involvement in some of the World's largest offshore wind projects and other major energy infrastructure projects in North-Western Europe, North America, and Asia Pacific. CIP has extensive biomass and energy from waste experience in the UK.

1.2.4 The ES has been prepared by AECOM Limited. This document presents a non-technical summary of the results of the ES **[Application Document Reference 6.2].** AECOM is a registrant to the Environmental Impact Assessment (EIA) Quality Mark scheme run by the Institute of Environmental Management and Assessment (IEMA).

1.3 The Purpose of the Environmental Statement and NTS

1.3.1 The ES **[Application Document Reference 6.2]** has been produced to accompany the Application, as required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("the EIA Regulations"), in order to ensure that the Examining Authority (who considers the Application), and the Secretary of State (who makes the ultimate decision as to whether consent should be granted for the Proposed Project) are aware of the likely significant effects on the environment as a result of the Proposed Project when taking their decision. The ES complies with all the elements of Schedule 4 of the EIA Regulations.

1.3.2 The purpose of this NTS is to describe the Proposed Project and to provide a summary in non-technical language, of the key findings of the ES.

2.0 THE PROPOSED PROJECT

2.1 Description of the Proposed Project

2.1.1 The purpose of the Proposed Project is to extend the generating capacity of the Consented Development from 50MWe up to 60MWe. The Proposed Project includes different and additional technology within the buildings being constructed for the Consented Development that can generate a higher peak output from the same fuel throughput, along with some very small external works (namely an external above ground pipe run on a consented pipe rack alongside other consented pipes).

Overview of the Proposed Project Infrastructure

2.1.2 The Proposed Project is an extension to the Consented Development comprising the carrying out of the following physical works (**Work No. 1** at Schedule 1 'Authorised Development' of the draft DCO **[Application Document Reference 2.1 – Draft Development Consent Order]**) which will increase the efficiency and gross installed capacity of the extended generating station from just under 50MW to circa 60MW:

- a boiler primary air preheating system comprising heat exchanger bundles, pipework, valves, pipe supports, thermal insulation, instrumentation, cabling and containment;
- a boiler secondary air preheating system comprising heat exchanger bundles, pipework, valves, pipe supports, thermal insulation, instrumentation, cabling and containment; and
- mechanical modifications to the actuated stream turbine inlet control valve to allow steam capacity to be increased.

2.1.3 The physical works comprised in the extension are 'engineering operations' and therefore 'development' for the purposes of Section 31 of the PA 2008.

2.1.4 It is the extension which is the NSIP pursuant to section 14(1)(a) and 15(1) of the PA 2008, and the development forming part of the extension (being the Authorised Development) which requires development consent pursuant to section 31 of the PA 2008. The Consented Development is consented and constructed pursuant to the TCPA. It is not an NSIP, nor does it form part of one.

2.1.5 Separately, the extended generating station requires an ancillary authorisation to 'operate' at over 50MW pursuant to section 36 of the Electricity Act 1989, and this is included within the DCO.

2.1.6 The increase in efficiency and generating capacity will not require any increase in the hourly throughput of Waste Derived Fuel (WDF) or the number of approved deliveries to the facility.

2.1.7 The consented building envelope (structure) and architecture of the Consented Development, currently under construction, will remain unchanged.

Electricity Export

2.1.8 This Proposed Project will not require any new or additional underground or overhead cabling associated with electricity export over and above those required for the Consented Development.

2.2 Construction Phase – Programme and Activities

Construction Programme and Staffing

2.2.1 Construction of the Proposed Project will commence as soon as practical subject to development consent being granted and the discharge of any relevant DCO requirements, and it is intended that it will be completed before the Consented Development enters operation. It is expected that it will be undertaken within and in parallel with the existing Consented Development construction programme; it is not expected that there would be any change to the existing consented facility construction duration, Plates 2.1 – 2.3 show a model of the Consented Development.

2.2.2 There will be a small increase in construction staff of around 20 persons over a two-month installation period for the Proposed Project.

2.2.3 A bus facility operates between the car park and Site. There is also a parking facility for 25 cars at 689 Stirling Road and a space for offloading mini buses safely. There is no change to these arrangements for Site construction staff as a result of the Proposed Project.

2.2.4 The hours of construction work for the Proposed Project will be as per those for the Consented Development.

Construction HGV Movements

2.2.5 There will be approximately 20 Heavy Goods Vehicles (HGV) deliveries over the two-month period (an average <1 HGV arrival per day). This will relate to delivery of a small amount of additional pipework and labour resources to install the infrastructure associated with the Proposed Project over a two-month construction period.

2.2.6 There will no abnormal weight or large sized vehicles required for the Proposed Project.

Construction Site Management

2.2.7 Construction works on site for the Consented Development are controlled through an existing agreed Construction Environmental Management Plan (CEMP) which describes the mitigation measures for the works. This approved CEMP will continue to be used for the Proposed Project which is directly relevant and applicable due to the same nature of the works and site location of the Proposed Project to that of the Consented Development.

Construction Activities

2.2.8 The construction works associated with the Proposed Project are predominately within the boiler house and turbine hall, with a single external pipe run between these two buildings (and not expected to be visible outside the Site, other than from a specific location along Liverpool Road) on a pipe rack to be installed as part of the Consented Development (i.e. the pipe rack will be constructed as part of the Consented Development with external pipes, and the Proposed Project will add 1 additional pipe to this pipe rack).

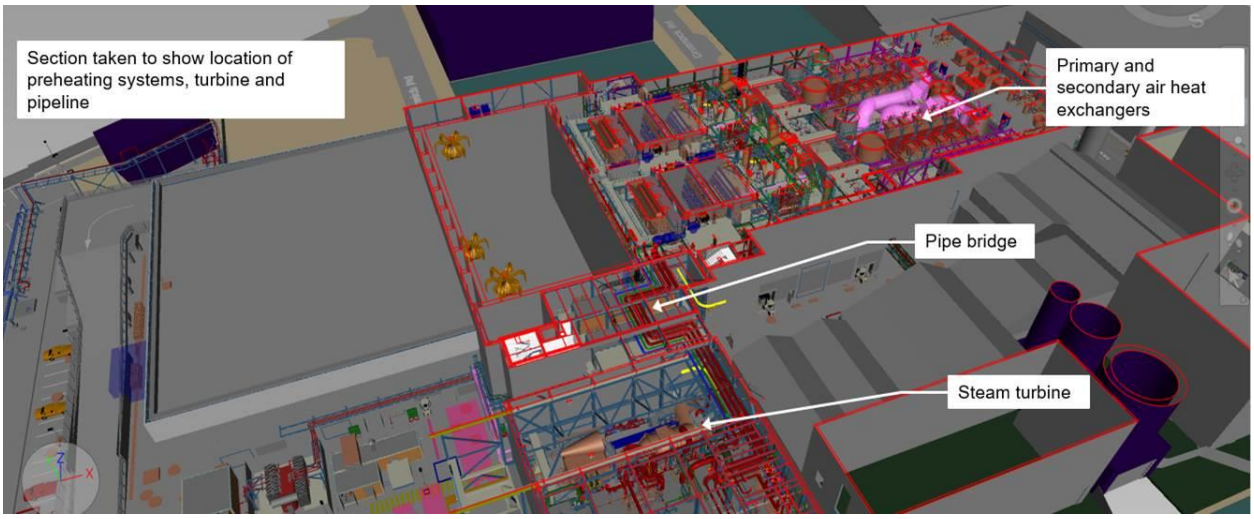

Plate 2.1 – 3D Model Section View of Consented Development with external pipework and pipe supports (Note – Proposed Project external pipework is coloured blue)

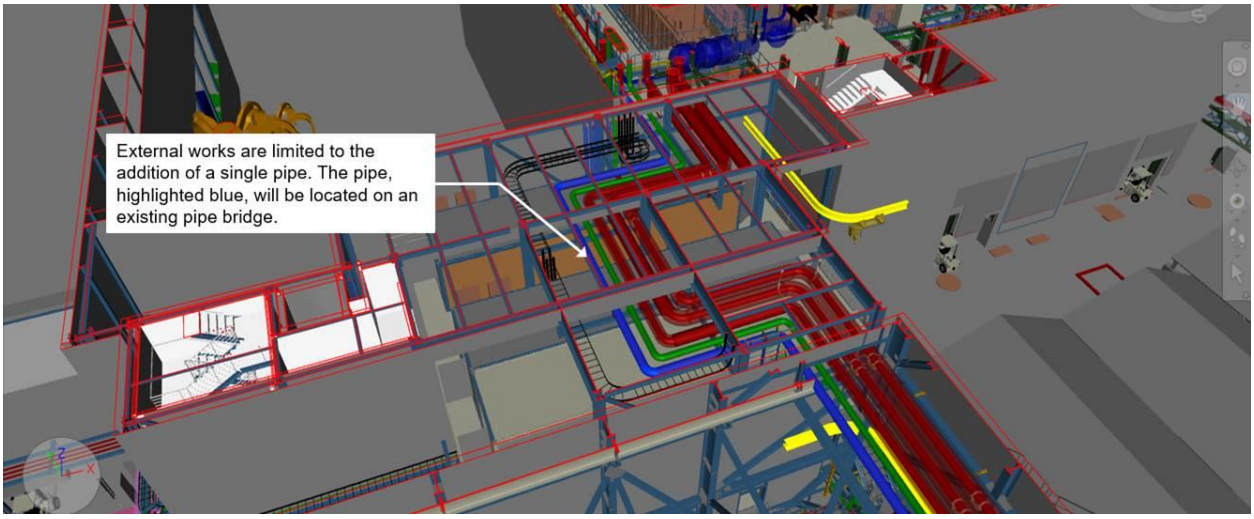

Plate 2.2 – 3D Model Close-up Aerial View of Consented Development with external pipework and pipe supports (Note – Proposed Project external pipework is coloured blue)

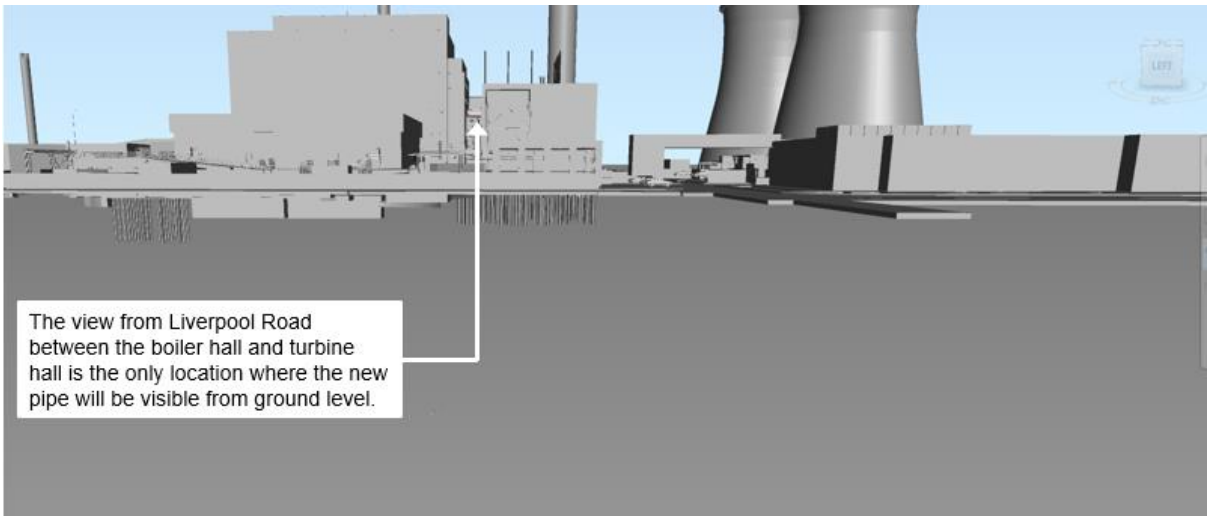

Plate 2.3 – 3D Model Aerial View (Bare Earth view from Liverpool Road of Consented Development with external pipework and pipe supports looking between turbine hall and boiler hall (Note – Proposed Project external pipework is coloured blue)

2.3 Operational Phase

2.3.1 The additional electricity generated by the Proposed Project comes from raising the temperature of the combustion air fed into the boiler by heating it in advance. As the incoming air will be at a higher temperature, less fuel is required to achieve the increased output. If the same amount of fuel is burned, then more steam will be produced which can be used by the steam turbine system to increase the output.

2.3.2 The existing steam connection from the SHP site to the Slough Trading Estate will be used for the Consented Development to transfer heat and steam to offsite users. The Proposed Project will not change this, and the Consented Development will continue to be able to export heat as either steam or hot water, depending on the requirements of the consumer. There will continue to be 20MW thermal energy available to export.

2.3.3 Cooling Tower 8 and its associated pumps will be utilised by the Proposed Project. The Proposed Project will not result in any change to the Consented Development building envelope and architecture, currently under construction, other than a single external pipe on a consented external pipe rack with four other pipes. The reason Cooling Tower 8 is included is because it will now be dedicated to the Slough Multifuel Facility. Previously it was shared infrastructure.

Operational Phase Hours of Operation

2.3.4 It is expected that the Proposed Development will operate for approximately 8,000 hours per annum (to allow for offline periods for maintenance), which is as per the Consented Development. However, assessments have been undertaken on the basis of the Proposed Development operating continually, for twenty-four hours

per day, seven days a week (i.e., for a total of 8,760 hours per annum) so that a "worst case scenario" has been assessed. This again is as per the assessments for the Consented Development. The Proposed Project will not lead to an increase in operational hours.

Operational Phase HGV Movements

2.3.5 There will be no change in the number of road traffic deliveries during the operational phase due to the Proposed Project.

Operational Phase Staffing

2.3.6 The Proposed Project will be operated and managed by suitably qualified and trained personnel, and there would not be an increase of operating staff above the number required for the Consented Development.

2.4 Decommissioning Phase

2.4.1 The Proposed Project will be an extension to the Consented Development and is expected to have a design life of at least 30 years with the possibility of extending this to 50 years.

2.4.2 At the end of its operating life, the most likely scenario is that the plant and all equipment will be shut down and removed from the Site. Prior to removing the plant and equipment, all residues and operating chemicals would be cleaned out from the plant and disposed of in an appropriate manner.

2.4.3 The Proposed Project will be an integral part of the Slough Multifuel Facility and would therefore be decommissioned alongside the Consented Scheme.

3.0 ALTERNATIVES AND NEED

3.1 Introduction

3.1.1 The EIA Regulations state that the ES should contain *"A description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment"*.

3.2 Reasonable Alternatives Considered

3.2.1 The Applicant chose the Site for the Proposed Project, based on there already being a Consented Development under construction and the potential for an extension to increase its efficiency and power generation. Whilst no alternative sites were considered, careful consideration was given to the suitability of the Site, the Consented Development and the location, layout and integration of the Proposed Project with the Consented Development.

3.2.2 The Site was selected for the Proposed Project for the following key reasons:

- the Consented Development is currently under construction and presented a viable opportunity to undertake engineering operations to enable an increase in generating capacity;
- the Site is located within an existing industrial area with existing off-site Combined Heat and Power opportunities;
- the Proposed Project will not require any new or additional underground or overhead cabling associated with electricity export as it will use those required for the Consented Development; and
- the Site is under the control of the Applicant.

The nature of the Proposed Project (being an extension to the Consented Development) means there has been relatively little design evolution in comparison with an application for a new generating station.

3.3 The Need for the Proposed Project

3.3.1 There is a substantial body of policy and evidence in support of the national needs for new low carbon energy generation facilities and waste management facilities, which is reflected in local planning policy.

3.3.2 The need for new electricity generation capacity of all types is set out in government policy – the Overarching National Policy Statement for Energy (NPS EN-1) (Department of Energy and Climate Change, 2011a). This explains that the Government is implementing a variety of reforms in order to promote investment to replace ageing coal-fired and nuclear power infrastructure with safe, secure, affordable and increasingly low carbon supplies of energy.

3.3.3 Energy from waste is a renewable form of generation, as the principal purpose of the combustion of waste (as fuel) is to reduce the amount of waste going to landfill in accordance with the Waste Hierarchy and to recover useful energy from that waste. The Waste Hierarchy derives from the Waste Directive as implemented by the Waste (England and Wales) Regulations 2011.

3.3.4 The Proposed Project will make effective use of the Consented Development to increase generating capacity, through an increase in efficiency, while supporting energy security and diversification.

4.0 EXISTING SITE AND CONDITIONS

4.1.1 The Proposed Project Site (the 'Site') is located within the existing Slough Heat and Power Site, which is within the Slough Trading Estate, a major employment area within Slough. **Figure 1.1 [Application Document Reference 6.3.1 – Proposed Project Location (Plan)]** in this ES illustrates the location of the Site.

4.1.2 The Site is broadly the same as the site for the Consented Development, with the addition of Cooling Tower 8 to the north of Edinburgh Avenue. Cooling Tower 8 and its associated pumps will be utilised by the Consented Development and the Proposed Project. No physical works will take place to Cooling Tower 8, but it will be solely dedicated to the Consented Development and Proposed Project.

4.1.3 The Site previously contained buildings, hardstanding and various other plant associated with power generation, which have been cleared before construction work started on the Consented Development in May 2021. The construction works of the Consented Development are expected to be completed in early 2024.

4.1.4 Slough Heat and Power (SHP) Plant, which is the wider site within which the Consented Development and Proposed Project are situated, provides various services to businesses on the Slough Trading Estate, including electricity distribution and distribution and supply of heat and potable water. It also includes other services such as water treatment, operations and maintenance, and cooling water.

4.1.5 Together with the Consented Development and the Proposed Project, those facilities will continue to retain output and connection to the local electricity network.

4.1.6 The main large structures remaining within the SHP site currently comprise the Boiler 17 plant and equipment which is 30m high along with its associated 104m high north stack located adjacent to Edinburgh Avenue. The two cooling towers, one of which is within the Site boundary for the Proposed Project (CT8), are located to the north of Edinburgh Avenue and are approximately 49m high. Other buildings include an office, electrical switch rooms, a turbine hall, a package boiler and associated stack and a large fuel shed. These are being retained and have not been part of the Site clearance works.

4.2 The Surrounding Area

4.2.1 The Site, which is predominantly flat and approximately 32m above ordnance datum (AOD), lies within the Thames Valley, approximately 4km north of the River Thames and is surrounded by the conurbation of Slough. Windsor is approximately 5km south of the Site and Maidenhead is approximately 7km west of the Site.

4.2.2 The area surrounding the Site is occupied by various industrial, warehouse and retail businesses, typical of much of the Slough Trading Estate, which covers an area of approximately 158ha. The nearest of these commercial receptors is an industrial unit located 30m north and west of the Site on the northern side of Edinburgh Avenue. An industrial warehouse unit is located approximately 50m south of the SHP site boundary (for Site Boundary refer to **Figure 4.1 [Application Document Reference 6.3.8 – Aerial Photo of Site (July 2021)]** in this ES).

4.2.3 The nearest residential properties are located approximately 180m north of the Site on Bodmin Avenue, with the nearest park and green space area, Kennedy Park, situated approximately 400m northwest of the Site.

4.3 The Consented Development

4.3.1 The demolition works on the Site have been completed and the Consented Development is currently under construction. . **Plate 4.1 [Application Document Reference 6.1]** illustrates a 3D model of the Consented Development which will include an enclosed tipping hall and fuel storage bunker, a Turbine hall, a Boiler house, a Flue Gas Treatment (FGT) plant and Ash handling facilities.

4.3.2 The Consented Development will provide a multifuel generating station that will convert Waste Derived Fuel (WDF) into low carbon electricity and heat, with a design capacity of up to 400,000 tonnes per annum of WDF, and a maximum capacity of 480,000 tonnes based upon operating twenty-four hours per day, seven days per week with periodic offline periods for maintenance.

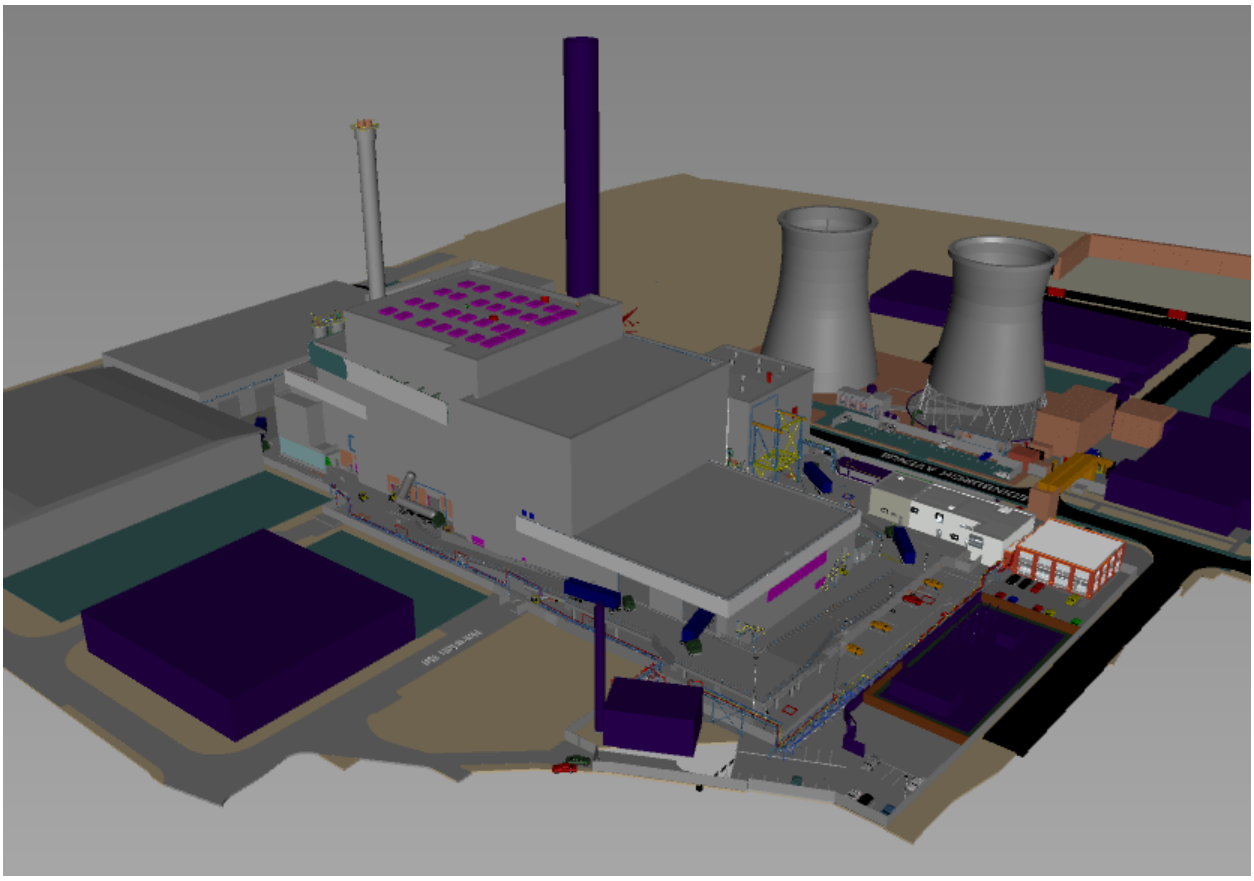

Plate 4.1 – Consented Development 3D Model

Plate 4.2 – Tipping Hall Construction Area, Consented Development Construction Works (August 2022)

4.3.3 In terms of the construction of the Consented Development, the following represent the current key milestones and programme dates:

- 8th December 2020 – Financial close;
- Q1 2021 – Main site setup with construction works commencing early May 2021;
- Q3 2021 – Slipform construction of concrete bunker (completed);
- Q2 2022 – Steelworks become visible above ground;
- Q4 2022 – Turbine and reactor delivery and installation;
- Q1 2024 – First steam blows as part of commissioning works;
- Q2 2024 – First fuel delivery to site; and
- Q4 2024 – Project handover to operations.

4.3.4 A dedicated offsite parking facility with 120 spaces has been provided for construction workers for the Consented Development, located at Whitby Road railway siding (refer to **Figure 2.5 [Application Document Reference 6.3.7 – Construction Compound and Off-Site Parking]** in this ES). A bus facility operates between the car park and Site.

4.3.5 There is also a parking facility for 25 cars at 689 Stirling Road (refer to **Figure 2.5 [Application Document Reference 6.3.7 – Construction Compound and Off-Site Parking]** in this ES) and a space provided for offloading mini buses safely. This Stirling Road facility will be used for the Proposed Project construction phase which is intended to run parallel to that of the Consented Development.

Plate 4.3 – Exit Ramp Concrete Works, Consented Development Construction Works (August 2022)

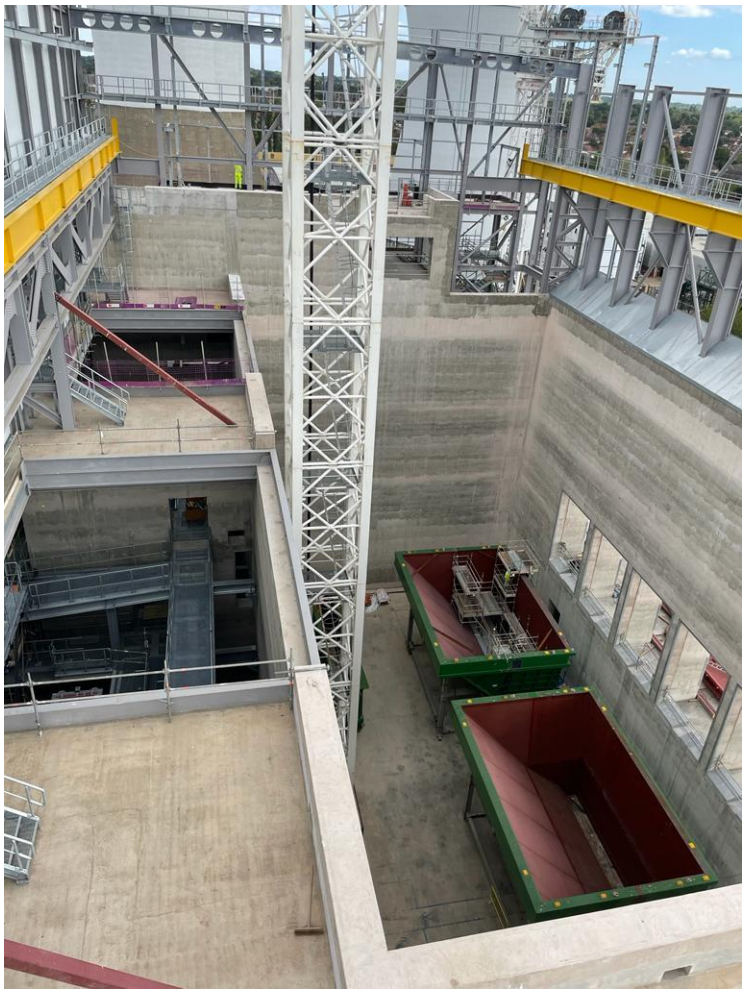

Plate 4.4 – Feed Hopper Openings Consented Development Construction Works (August 2022)

5.0 CONSULTATION

5.1.1 Consultation is important in the preparation of DCO Applications and in the EIA process. The 2008 Act requires applicants for development consent to carry out pre-application consultation on their proposals. This includes consultation on the Preliminary Environmental Information (PEI) Report.

5.1.2 Consultation with key stakeholders has been ongoing throughout the EIA process and on publication of the PEI Report, and comments raised have been addressed in the ES, where applicable.

5.1.3 All consultation responses received have been considered in the preparation of the Application supporting documentation, as set out in the **Consultation Report [Application Document Reference 5.1 – Consultation Report].**

6.0 ASSESSMENT METHODOLOGY

6.1 Environmental Impact Assessment Methodology

6.1.1 An EIA is an environmental assessment process to anticipate the changes (or 'impacts') that may occur to the environment as a result of the Proposed Project, such as changes to air quality or noise. In order to assess the potential impacts and effects of the Proposed Project, it is necessary to determine the environmental conditions that would exist on the Site and in the surrounding area without the Proposed Project (but with the Consented Development) for comparison. This is referred to as the 'future baseline' which is defined as '*A future date when the Consented Development is built (in 2024) and with its theoretical operation (based on the detailed design)*'.

6.1.2 The inclusion of the Consented Development within the 'future baseline' is because the works for the Consented Development have commenced and therefore, provides the baseline for the Proposed Project.

6.1.3 The EIA process identifies potentially sensitive 'receptors' the Proposed Project may affect (e.g., people living near the development, local flora and fauna, etc.) and defines the extent to which these receptors may be impacted by the predicted changes (i.e., whether or not the receptors are likely to experience a 'significant effect').

6.1.4 Where possible, the EIA uses best practice defined methodologies, based on legislation, definitive standards and accepted industry criteria. This is set out in detail in each technical chapter of Volume 1 of this ES **[Application Document Reference 6.2].**

6.1.5 Effects on the receptors can be adverse (negative), neutral (neither negative nor positive) or beneficial (positive). They can also be temporary (e.g., noise during construction) or permanent (e.g., the views of the finished buildings).

6.1.6 For the purpose of the ES, adverse and beneficial effects are described as 'significant' or 'not significant'. Where the EIA predicts a significant effect on one or more receptors, proposed mitigation measures are identified to avoid or reduce the effect, or to reduce the likelihood of it happening. The use of such mitigation will be secured through the DCO, should it be granted.

6.1.7 Full details of the EIA Assessment Methodology are provided within the **Chapter 6: Environmental Impact Assessment Methodology** in Volume 1 of this ES **[Application Document Reference 6.2.6 – ES Chapter 6].**

6.2 EIA Scoping

6.2.1 EIA Scoping is a process designed to identify relevant topics that need to be included in the EIA and reported in the ES. An EIA Scoping Report and a request for an EIS Scoping Opinion, under Regulation 10 of the EIA Regulations, was submitted to the Planning Inspectorate (PINS) and relevant consultees on 17

November 2021 to allow them to comment on the extent and approach to the environmental assessments to be undertaken.

6.2.2 A Scoping Opinion was received from the Planning Inspectorate on 22 December 2021 and is presented within **Appendix 1B: Scoping Opinion [Application Document Reference 6.4.2 – Scoping Opinion].** The ES is based on the Scoping Opinion and therefore includes assessments of the following environmental topics:

- Chapter 7: Transport and Access
- Chapter 8: Air Quality
- Chapter 9: Noise and Vibration
- Chapter 10: Ecology
- Chapter 11: Climate Change and Sustainability
- Chapter 12: Other Issues
- Chapter 13: Effect Interactions
- Chapter 14: Summary of Environmental Effects

6.2.3 Following the completion of an EIA Scoping report and publication of a Scoping Opinion, the environmental information for a DCO is reported in two stages.

- a Preliminary Environmental Information (PEI) Report is prepared to inform statutory (formal) consultation with the public and other stakeholders about the Proposed Project, based on the preliminary environmental information available at the time of consultation; and
- an ES, which is then prepared to accompany the DCO application and includes the EIA of the Proposed Project, taking account of any feedback received during consultation.

6.2.4 The PEI Report was prepared to meet the requirements of Regulation 12(2) of the EIA regulations and was published in April 2022. In order to enable consultees to understand the likely environmental effects of the Proposed Project, the PEI Report presented preliminary findings of the environmental assessments undertaken up to that point in time. This allowed consultees the opportunity to provide informed comments on the Proposed Project, the assessment process and preliminary findings, prior to the finalisation of the ES.

6.2.5 The topics that have been scoped out of the EIA, in accordance with the Scoping Opinion, are:

- aviation - the engineering works comprising the Proposed Project will for the most part be internal to the buildings of the Consented Development. The new pipe external to the building envelope connects two buildings and is below the height of the existing building roofline. There are no changes to the size of the building envelope or stack from beyond that already approved under the Consented Development;

- cultural heritage - the Proposed Project will not involve any breaking of ground or underground works, and therefore has no potential to affect buried archaeology. The external changes relative to the Consented Development are considered to be negligible and not visible at above ground heritage assets, and therefore the effect on setting of assets is also scoped out;
- landscape and visual amenity - the ES for the Consented Development concluded that there were no significant landscape effects during construction or operation. The engineering works comprising the Proposed Project will for the most part be internal to the buildings of the Consented Development, with the expectation that the external works will be visible from a single direction from within the Slough Trading Estate (Liverpool Road, east of the Site);
- telecommunications - the height and the massing of the Consented Development remains unaltered by the Proposed Project and will not lead to any temporary structures such as cranes and scaffolding greater than already required by the Consented Development;
- ground conditions - no new ground disturbance is required as part of the Proposed Project;
- waste – the Proposed Project will not lead to any significant increase in construction waste over and above that from the existing Consented Development and there will be no change in the volume of fuel delivery or by-products;
- human health - the Planning Inspectorate has advised that it is satisfied that matters relating to Air Quality and Noise and Vibration need not be duplicated / presented in a separate health aspect chapter; and
- socio economics - whilst there will be some minimal changes to employment during construction the Proposed Project is not anticipated to have any likely significant socio-economic effects.

7.0 SUMMARY OF ENVIRONMENTAL EFFECTS

7.1 Introduction

7.1.1 This section provides a summary of the likely environmental effects predicted to occur as a result of the construction, operation (including maintenance) and eventual decommissioning of the Proposed Project. These likely significant environmental effects are fully described in ES Volume 1 **[Application Document Reference 6.2]** and its accompanying technical appendices in ES Volume 3 **[Application Document Reference 6.4].**

7.1.2 An assessment of the environmental effects of the Proposed Project during its construction and operation (including maintenance) has been completed for each of the topics that have been scoped for inclusion within the EIA. During the eventual decommissioning of the Proposed Project, for the purposes of the EIA the effects are considered likely to be comparable to, or less than those for construction activities (and controlled similarly) and therefore although these are discussed in each chapter of the ES, decommissioning effects have not been specifically mentioned within this NTS unless otherwise stated.

7.1.3 A summary of likely significant residual effects (effects that are likely to occur even after the implementation of mitigation measures) is outlined in Chapter 14: Summary of Environmental Effects in ES Volume 1 **[Application Document Reference 6.2].**

7.2 Transport and Access

Introduction

7.2.1 The traffic and transportation assessment identifies the potential effects of the Proposed Project on local roads. The assessment considers the predicted number of vehicle movements generated during the construction and operation of the Proposed Project, and the sensitivity (including pedestrian and cyclist safety) and capacity of the local road network.

7.2.2 There will be no requirement for new site access for the Proposed Project in any phase.

Effects During Construction

7.2.3 The agreed Construction Traffic Management Plan (CTMP) for the Consented Development will apply to staff for the Proposed Project in terms of site access and the requirements for car sharing.

7.2.4 As per the Consented Development, staff will not be allowed to park at the Site or on public roads and streets around the Site. The temporary off-site car park located on Whitby Road that is part of the Consented Development will be used for the Proposed Project staff during the two months construction period. Shuttle buses will operate between the off-site car parking facility and the site drop-off point to the rear of Building 689 Stirling Road.

7.2.5 In addition, it is estimated that a total of 20 HGV deliveries (for construction activities) will be required, spread over the two-months construction period, which would result in an average of less than one additional HGV vehicle (two two-way movements) per day. The additional HGV deliveries will be managed through the CTMP to avoid morning and afternoon peak hours wherever practicable.

7.2.6 Due to the low number of additional staff cars and HGVs that the construction of the Proposed Project is forecast to generate, the overall effect of the construction of the Proposed Project is considered to be negligible. In addition, the impact of the construction traffic will only be for two months and will therefore be a short-term effect.

Effects During Operation

7.2.7 The fuel tonnage and residual ash associated with the Consented Development will not increase (relative to the Consented Development) as a result of the Proposed Project and therefore there will be no change to the number of deliveries to or departures from the Consented Development Site during operation. Also, there will be no change to staff numbers during the operational phase, and therefore there will be no impact on transport and access during the operational phase.

Effects During Decommissioning

7.2.8 Effects during decommissioning are anticipated to be comparable to, or less than, those for construction activities (and controlled similarly) and therefore considered to be not significant. The Proposed Project will become integral to the operation of the Slough Multifuel Facility and would therefore be decommissioned at the same time as the Consented Development, to the same programme and without additional impacts.

7.3 Air Quality

Introduction

7.3.1 This chapter of the ES presents the potential effects of the Proposed Project on air quality this includes potential impacts to both human health, sensitive receptors, and general environmental impacts.

Effects During Construction

7.3.2 The engineering works comprising the Proposed Project will for the most part be internal to the buildings of the Consented Development and will not lead to any significant increase in construction. No demolition or additional ground disturbance (i.e., no additional dust generation) is anticipated as part of the Proposed Project.

7.3.3 No specific additional mitigation has therefore been identified as necessary for the construction of the Proposed Project, other than the embedded, industry standard good practice measures in place for the Consented Development, which would reduce potential effects at receptors to a not significant level.

Effects During Operation

7.3.4 The combustion process for the Consented Development is more efficient than was envisaged at the time of the planning application for that development. The Proposed Project will not emit any more pollutants into the atmosphere than the Consented Development. The additional heat generated by the more efficient plant will be utilised to generate additional electrical power, without the need for more fuel. The temperature and momentum of the gases being released from the existing stack will not change due to the Proposed Project.

7.3.5 The effect of the Proposed Project on air quality sensitive receptors is neutral and not significant.

7.3.6 The Proposed Project does not introduce any new odour sources onsite or change the intensity or nature of any predicted odour associated with the Consented Development. There will be no change to odour and therefore the predicted effect is not significant.

Effects During Decommissioning

7.3.7 The decommissioning and demolition of the Proposed Project would happen at the same time as the Consented Development and would be indistinguishable from the impacts associated with the Consented Development. There may be some additional road trips, but this would be imperceptible compared with the total number of trips associated with the decommissioning of the Consented Development. No impact is therefore predicted during this phase of the Project.

7.4 Noise and Vibration

Introduction

7.4.1 This chapter assesses the likely significant noise and vibration impacts of the Proposed Project on the surrounding environment.

Effects During Construction

7.4.2 The Proposed Project will not result in any change to the consented building envelope and architecture with the majority of works taking place internally. The only expected external amendment associated with the Proposed Project to the Consented Development will be the presence of an additional pipe that will be located on a consented pipe rack between the Consented Development boiler hall/tipping hall and the turbine hall. This work will not require any new or different construction plant than has already been considered and assessed for the Consented Development. Consequently, construction noise will not be any different from that assessed for the Consented Development.

7.4.3 There will be approximately 20 HGV deliveries over a two-month period (which averages at less than one HGV delivery per day), and up to two minibus journeys per day over the two-month period. This is less than what is required for the

Consented Development and the impacts associated with traffic noise are therefore predicted to be negligible and not significant.

Effects During Operation

7.4.4 The Proposed Project will operate for approximately 8,000 hours per annum which is as per the Consented Development but has been assessed as operating 8,760 hours per annum (24 hours per day) so the "worst case scenario" is assessed. This is as per the Consented Development. All new noise generating plant in the Proposed Project will be located internally and will not produce any additional noise than assessed in the Consented Development. Additionally, all new plant will be required to comply with the Consented Development planning condition noise limit of 60dB L_{AeqT} at the site boundary. As such, noise emissions will be consistent with the Consented Development, which was identified as negligible and not significant.

7.5 Ecology

Introduction

7.5.1 The ecology chapter reports the findings of an assessment to identify the potential for the Proposed Project to result in likely significant effects on valued biodiversity assets in the surrounding Site area.

Effects During Construction

7.5.2 The nearest designated site, Haymill Valley Local Nature Reserve (LNR) /Local Wildlife Site (LWS), is located approximately 800m to the west of the Site, and therefore sufficient distance from the construction activities onsite not to be affected. Designated sites are therefore anticipated to experience a negligible adverse effect.

7.5.3 The temporary loss of protected species habitat within the SHP Site due to the demolition and site clearance works associated with the Consented Development will not be significantly altered by the two-month construction phase for the Proposed Project. The additional two-month duration of the construction of Proposed Project is considered a short-term effect and therefore a negligible adverse effect on protected species. The impact and effects for peregrine falcon are provided separately as a confidential appendix to this ES, but in summary, are negligible significance. The impacts and mitigation measures would not significantly differ if the Consented Development and Proposed Project works were not completed in parallel. It would be expected that there would be minor and localised disturbances however, these would be limited considering the extent and duration of the Proposed Project works.

7.5.4 The presence of Cotoneaster (a non-native invasive species) places a legal obligation to avoid its spread beyond the Proposed Project boundary. As the extent of cotoneaster is limited and the location where it occurs will not be disturbed by the Proposed Project, it not expected that any spread will occur, and therefore there would be no effect.

Effects During Operation

7.5.5 The operational phase of the Proposed Project will have no effect on nature conservation designations due to no additional air or noise emissions from the Proposed Project. There will also be no effect on ancient woodlands or breeding birds and a negligible effect upon habitats.

7.6 Climate Change and Sustainability

Introduction

7.6.1 This chapter of the ES assesses the potential effects of the construction and operation (including maintenance) of the Proposed Project in terms of Climate Change and Sustainability. As well as considering potential effects arising from the Proposed Project, this assessment also considers the potential impact of projected future climate change on the Proposed Project and the surrounding environment.

Effects During Construction

7.6.2 The assessment of construction phase Greenhouse Gas (GHG) emissions considers any additional GHG emissions caused by the Proposed Project as against those identified from the Consented Development.

7.6.3 The total GHG emissions from the construction of the Proposed Project, excluding GHG emissions already arising due to the Consented Development, are estimated to be in the order of 10.77 tCO2e.

7.6.4 Furthermore, the number, scale and duration of additional construction equipment will be relatively small, and the construction related Greenhouse Gas (GHG) emissions will therefore be minimal, leading to an effect of negligible significance.

Effects During Operation

7.6.5 The Proposed Project is anticipated to increase the amount of electricity generated from the equivalent tonnage of waste derived fuel (WDF) compared to the Consented Development. There will be no change in overall emissions from combustion of the WDF. However, operating the plant at higher combustion inlet temperatures will result in a 20% improvement in output, which equates to a 5% increase in efficiency, which in turn will reduce the carbon intensity of the power generated.

7.7 Other Issues

Introduction

7.7.1 This chapter presents an assessment of topics that have not been scoped out of the EIA but are not expected to have likely significant effects. This includes flood risk and drainage, as well as major accidents and disasters.

Flood Risk and Drainage

7.7.2 The Proposed Project consists of external pipes which are located 18m above ground in a Consented Development pipe rack. As these pipes are external and raised from the ground, rainfall will be able to fall to the ground. There will be no additional water consumption or water discharge to that of the Consented Development as a result of the Proposed Project, it expected that as a result of the Proposed Project there will actually be a reduction in relation to the cooling load, therefore resulting in a Negligible effect which is Not Significant.

Major Accidents and Disasters

7.7.3 In the absence of the Proposed Project, the threat of major accidents occurring is (as with most industrial facilities) a possibility but unlikely. The risk and threat of any major accidents occurring, including fire risk from increased temperature of combustion gas, would not change due to the Proposed Project. The effect is therefore considered to be one of no change and not significant.

7.8 Cumulative and Combined Effects

7.8.1 The potential for cumulative effects with other developments in the surrounding area have been considered in the ES. It has also considered in-combination effects, where multiple impacts associated with the Proposed Project may together affect a single receptor differently to when considered in isolation.

7.8.2 Primarily due to the negligible effects associated with the Proposed Project, no significant cumulative effects or in-combination effects have been identified.

8.0 SUMMARY AND CONCLUSIONS

8.1.1 The ES reports the findings of the EIA process that has been undertaken for the Proposed Project.

8.1.2 No moderate or major effects have been identified, and therefore no significant effects are anticipated associated with the Proposed Project.