Limitations

URS Infrastructure & Environment UK Limited ("URS") has prepared this Report for the sole use of Multifuel Energy Limited ("Client") (including all associates and subsidiaries) in accordance with the Agreement under which our services were performed [Framework 1043-URS-15]. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by URS. This Report is confidential and may not be disclosed by the Client nor relied upon by any other party without the prior and express written agreement of URS.

The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by URS has not been independently verified by URS, unless otherwise stated in the Report.

The methodology adopted and the sources of information used by URS in providing its services are outlined in this Report. The work described in this Report was undertaken between January and May 2013 and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances.

Where assessments of works or costs identified in this Report are made, such assessments are based upon the information available at the time and where appropriate are subject to further investigations or information which may become available.

URS disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to URS’ attention after the date of the Report.

Certain statements made in the Report that are not historical facts may constitute estimates, projections or other forward-looking statements and even though they are based on reasonable assumptions as of the date of the Report, such forward-looking statements by their nature involve risks and uncertainties that could cause actual results to differ materially from the results predicted. URS specifically does not guarantee or warrant any estimate or projections contained in this Report.

Copyright
© This Report is the copyright of URS Infrastructure & Environment UK Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.
# Table of Contents

1. **INTRODUCTION** .................................................................................. 1
   1.1 Background ...................................................................................... 1
   1.2 Consenting Regime ............................................................................. 2
   1.3 The Purpose of Scoping in the Environmental Impact Assessment Process ........................................... 3
   1.4 The Need for the Proposed Development ........................................... 5
   1.5 Consideration of Alternatives ............................................................. 6
2. **DESCRIPTION OF THE EXISTING ENVIRONMENT** ..................... 8
   2.1 Site Description ................................................................................ 8
   2.2 Site History ...................................................................................... 9
   2.3 Previous Environmental Studies ...................................................... 10
   2.4 Potential Environmental Sensitivities/ Sensitive Receptors .................... 10
3. **PROJECT DESCRIPTION** .................................................................. 12
   3.1 The Proposed Development Description ........................................ 12
   3.2 Principal Development ..................................................................... 12
   3.3 Associated Development .................................................................. 16
   3.4 Outline Development Programme .................................................... 17
4. **CONSULTATION** .............................................................................. 18
5. **PLANNING POLICY CONTEXT** ......................................................... 20
   5.1 Introduction ..................................................................................... 20
   5.2 Planning Act 2008 ........................................................................... 20
   5.3 National Planning Policy Framework (NPPF) .................................... 21
   5.4 National Waste Policy ....................................................................... 21
   5.5 Wakefield Development Plan ............................................................ 21
6. **POTENTIALLY SIGNIFICANT EIA ISSUES** ................................. 23
   6.1 Introduction ..................................................................................... 23
   6.2 Air Quality ...................................................................................... 23
   6.3 Noise and Vibration ......................................................................... 25
   6.4 Transportation and Access .................................................................. 28
   6.5 Ecology ........................................................................................... 30
   6.6 Ground Contamination and Soil Quality ......................................... 32
   6.7 Hydrology and Hydrogeology (including Flood Risk) ...................... 33
   6.8 Archaeology and Cultural Heritage .................................................. 35
   6.9 Land Use and Socio-Economics ....................................................... 36
   6.10 Landscape and Visual Impact Assessment (LVIA) ............................ 37
   6.11 Sustainability .................................................................................. 39
List of Figures and Tables

Table 1.1 - Information Provided in this Scoping Report (based on Advice Note Seven)

Figure 1.1 - Location Plan

Figure 1.2 - Potential Proposed Development Indicative DCO (Application Site) Boundary

Figure 2.1 - Aerial Photograph of proposed development

Figure 2.2 - Proposed Land Use Within Indicative DCO (Application Site) Boundary

Figure 2.3 - FM1 Site Boundaries

Figure 2.4 (a) - Known environmental considerations within study area

Figure 2.4 (b) - Known environmental considerations within study area

Figure 5.1 - County and Unitary Authorities

Figure 9.1 - Cumulative Development Location Plan
1 INTRODUCTION

1.1 Background

1.1.1 SSE Generation Ltd (SSE) and Wheelabrator Technologies Incorporated (WTI) have formed a joint venture to develop a low carbon electricity generating plant that will be fuelled by waste derived fuels (WDF). This joint venture is known as Multifuel Energy Limited (MEL).

1.1.2 MEL (hereinafter referred to as “the Applicant”) is proposing to submit an application to the Secretary of State that will seek a 'Development Consent' to authorise the construction and operation of a new build Multifuel Power Station of up to 90 Mega Watts (MW) gross output and associated plant within the existing Ferrybridge Power Station complex, located in West Yorkshire, within the administrative boundary of Wakefield Metropolitan District Council (WMDC).

1.1.3 The Proposed Development is named ‘Ferrybridge Multifuel Power Station 2’ (FM2) and will be located to the north of the Ferrybridge Multifuel Power Station (now known as and referred to in this report as ‘FM1’), for which Section 36 consent and deemed planning permission were granted in October 2011. FM1 is currently under construction and is due to be complete by September 2014, when commissioning will commence. Full operation is anticipated to commence from March 2015.

1.1.4 The Proposed Development will be capable of producing low carbon electricity through the use of WDF from various sources of processed municipal solid waste (MSW), commercial and industrial waste and waste wood. It will therefore make a positive contribution toward addressing a number of challenges, namely:

- the UK Government’s climate change commitments, which necessitate achieving ambitious reductions in greenhouse gas emissions (principally CO₂);
- security of national electricity supply, which can be addressed through having a mix of energy generating technologies and a diverse range of fuel sources;
- maximising energy recovery from WDF obtained from the processing of various sources of MSW, commercial and industrial waste and waste wood into a fuel suitable for use in the Proposed Development;
- complementing recycling initiatives by accepting waste after these processes have been carried out, thereby forming part of an integrated waste management system; and
- positive use of waste materials that may otherwise be disposed of to landfill, saving valuable landfill space. This will also result in a reduction of greenhouse gas emissions (including methane) that would otherwise have been generated from the breakdown of the waste material had it gone to landfill.

1.1.5 The Proposed Development Site (“the Site”) will extend to an area of approximately 42 hectares (ha) and consist of land owned by SSE within the Ferrybridge Power Station complex (which comprises Ferrybridge ‘C’ coal-fired Power Station, FM1 and the Site, along with ancillary support facilities), located at Stranglands Lane, Knottingley, West Yorkshire, WF11 8SQ. The majority of the Site occupies the footprint of the former Power Station Golf Course, whilst the remainder of the Site is residual land that is currently being used as laydown areas by the contractors for the construction of FM1. It is centred on Grid Reference 447261, 425319 and is shown in Figures 1.1 and 1.2.
1.2 Consenting Regime

Planning Act 2008

1.2.1 The Proposed Development falls within the definition of a ‘Nationally Significant Infrastructure Project’ (NSIP) under Section 14(1)(a) and Section 15(2)(a-c) of the Planning Act 2008 (Ref 1-1) because it is an onshore generating station within England, that will have a generating capacity greater than 50 MW gross output. As such a Development Consent is required to authorise the Proposed Development under Section 31 of the Planning Act.

1.2.2 Development Consent is granted by the Secretary of State (SoS) by means of an ‘Order’ (a Development Consent Order, or DCO). A DCO can have the effect of granting planning permission in addition to a range of other consents and authorisations for a development. Section 115 of the Planning Act also provides for Development Consent to be granted for ‘associated development’, that is, development that is associated with (i.e. to either support the construction or operation of or help to address the impacts of) the ‘principal development’.

1.2.3 An application for Development Consent is submitted to the Planning Inspectorate (PINS) acting on behalf of the SoS. Subject to the application being accepted, PINS will examine it and make a recommendation to the SoS, who will subsequently determine whether to grant a DCO for the NSIP.

1.2.4 Consultation forms a key aspect of the DCO process under the Planning Act 2008. The planned consultation process for the Proposed Development is summarised in Section 4 of this Scoping Report.

Environmental Impact Assessment (EIA) Regulations

1.2.5 The Proposed Development is considered to fall within Schedule 1 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) (Ref 1-2), the ‘EIA Regulations’ and constitutes an ‘EIA development’. As such, an EIA will be undertaken, and an Environmental Statement (ES) produced and submitted in support of the DCO application in accordance with Regulation 5 (2)(a) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (‘APFP Regulations’) (Ref 1-3).

1.2.6 This Scoping Report represents notification under Regulation 6(1)(b) of the EIA Regulations, that the Applicant will undertake an EIA in respect of the Proposed Development and produce an ES to report the findings of the EIA. The ES will form part of the application that will be submitted to PINS seeking a DCO for the Proposed Development.

1.2.7 In addition, this Scoping Report also represents a formal application to PINS under Regulation 8(1) of the EIA Regulations for a ‘Scoping Opinion’ as to the information to be provided within the ES that will form part of the DCO application.

1.2.8 Regulation 6(3) requires any notification under Regulation 6(1)(b) to be accompanied by a plan sufficient to identify the land in question, a brief description of the nature and purpose of the development and its possible effects on the environment; and such other information or representations as the person making the request may wish to provide or make. Regulation 8(3) requires an application for a Scoping Opinion to include the same information as Regulation 6(3). This Scoping Report contains the information required by both Regulations.

1.2.9 This Scoping Report considers the environmental context of the Site and the potential environmental effects of the Proposed Development. Where environmental effects are considered to have the potential to be significant, these have been identified and this report outlines the proposed approach to be used in assessments that will be undertaken for the EIA to characterise and understand the significance of these effects. This Scoping Report also sets out the potential topic areas that have been appraised but where it is considered that the Proposed
Development will not result in significant effects and which can be ‘scoped out’ of the EIA process.

1.2.10 The EIA will be an iterative process that feeds into the engineering design of the Proposed Development in order to mitigate significant environmental effects where they are predicted to occur. The final design of the Proposed Development (including details of the maximum and minimum development parameters), along with the findings of the EIA will be reported in the ES, that will form part of the DCO application.

1.3 The Purpose of Scoping in the Environmental Impact Assessment Process

1.3.1 Having determined that the Proposed Development is EIA development, scoping forms a key stage of the EIA process, providing a framework for identifying likely significant environmental effects arising from the Proposed Development and distinguishing the priority issues needing to be addressed within the ES. By doing so, the Scoping phase assists in focusing attention on key environmental impacts for inclusion within the ES and on the assessment of issues critical to achievement of a DCO under the 2008 Planning Act (Ref 1-1). A Scoping Report also identifies those matters which do not need to be assessed in detail. Scoping also provides key stakeholders with an early opportunity to comment on the proposed structure, methodology and content of the EIA.

1.3.2 This Scoping Report has been compiled with reference to Advice Note Seven: Environmental Impact Assessment: Screening and Scoping (The Planning Inspectorate 2012) (Ref 1-4). The EIA will assess the likely significant effects the Proposed Development could have on the Site and surrounding area through detailed baseline studies and technical assessments. It will propose mitigation measures and further monitoring, as required. This information will be used to produce an ES and will inform the design of the Proposed Development, in addition to the “requirements” (conditions) to be contained within the draft DCO that will be submitted with the application.

1.3.3 The purpose of this Scoping Report is therefore to outline:

- what the key environmental aspects with relation to the Proposed Development are;
- how these aspects have been identified;
- the proposed methodologies and guidance that will be used and followed to assess them in the ES;
- the format and layout of the ES; and
- what aspects it is proposed need not be assessed (’scoped out’) and why.

1.3.4 This Scoping Report has been prepared to accompany the application made to PINS for a Scoping Opinion under Regulation 8(1) of the EIA Regulations as to the information to be provided within the ES.

1.3.5 Table 1.1 presents a list of information which should be included in a Scoping Report, as highlighted in the PINS Advice Note Seven (Ref 1-4), and the location where in this report the information is presented.
### Table 1.1: Information provided in this Scoping Report (based on Advice Note Seven)

<table>
<thead>
<tr>
<th>Description of Information required (taken from Advice Note Seven)</th>
<th>Section in Scoping Report where the Information is Presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>A plan showing:</td>
<td>Section 1, Figure 1.2; Section 2, Figures 2.2, 2.4(a) &amp; 2.4(b); and Section 2.1.5</td>
</tr>
<tr>
<td>• the DCO site boundary and associated development;</td>
<td></td>
</tr>
<tr>
<td>• permanent land take required for the NSIP;</td>
<td></td>
</tr>
<tr>
<td>• temporary land take required for construction, including off-site construction compounds;</td>
<td></td>
</tr>
<tr>
<td>• existing infrastructure which would be retained or upgraded for use as part of the NSIP;</td>
<td></td>
</tr>
<tr>
<td>• existing infrastructure which would be removed; and</td>
<td></td>
</tr>
<tr>
<td>• features including planning constraints and designated areas on and around the Site, such as national parks or historic landscapes</td>
<td></td>
</tr>
<tr>
<td>A description of:</td>
<td>Section 2 and Section 6</td>
</tr>
<tr>
<td>• the NSIP Site;</td>
<td></td>
</tr>
<tr>
<td>• the NSIP development; and</td>
<td></td>
</tr>
<tr>
<td>• its possible effects on the environment.</td>
<td></td>
</tr>
<tr>
<td>An outline of the main alternatives considered and the reasons for selecting a preferred option</td>
<td>Section 1.5</td>
</tr>
<tr>
<td>Results of desktop and baseline studies where available</td>
<td>Section 6</td>
</tr>
<tr>
<td>Guidance and best practice to be relied upon</td>
<td>Section 6</td>
</tr>
<tr>
<td>Methods used or proposed to be used to predict impacts and the significance criteria framework used</td>
<td>Sections 6 and 8.1</td>
</tr>
<tr>
<td>Where cumulative development has been identified, how the developer intends to assess these impacts in the ES</td>
<td>Section 8</td>
</tr>
<tr>
<td>An indication of any European designated nature conservation sites that are likely to be significantly affected by the Proposed Development and the nature of the likely significant impacts on these sites</td>
<td>Section 6.4</td>
</tr>
<tr>
<td>Where the Applicant seeks to scope out matters, a full justification for scoping out such matters</td>
<td>Section 7</td>
</tr>
<tr>
<td>Key topics covered as part of the developer’s scoping exercise</td>
<td>Section 6</td>
</tr>
<tr>
<td>An outline of the structure of the proposed ES</td>
<td>Section 8</td>
</tr>
</tbody>
</table>
1.4 The Need for the Proposed Development

1.4.1 A number of National Policy Statements (NPS) for energy infrastructure were designated by the SoS under the Planning Act 2008 (Ref 1-1) on 19th July 2011 (Ref 1-5 to 1-7). NPS EN-3, together with the Overarching NPS for Energy (EN-1), provides the primary basis for decisions on applications for ‘nationally significant renewable energy infrastructure’ defined at section 1.8 of EN-3, which includes ‘energy from biomass and/or waste’.

1.4.2 The Overarching NPS for Energy (EN-1 Part 3) (Ref 1-5) emphasises that the UK needs all of the types of energy infrastructure covered by EN-1, including energy from waste, that it is for industry to propose new energy infrastructure projects within the strategic framework set by the Government and that applications should be considered on the basis that the Government has demonstrated need as described and that substantial weight should be given to the contribution which projects make towards satisfying need. EN-1 Part 4 goes on to state that the decision maker should “…start with a presumption in favour of granting consent to applications for energy NSIPs… unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused”.

1.4.3 As part of the UK’s need to diversify and decarbonise electricity generation, the Government is committed to dramatically increasing renewable energy and it notes that increasingly this may include plant powered by the combustion of waste and/or biomass, helping to avoid over-dependence on a single fuel type. Among current national waste policy, the Government ‘Review of Waste Policy in England 2011’ prioritises efforts to manage waste in line with the waste hierarchy while a further goal is to ensure “Recovery of energy from waste makes an important contribution to the UK’s renewable energy targets minimising waste to landfill and helping to meet UK carbon budgets”.

1.4.4 EN-3 (Ref 1-6) Part 2.5 states that “Electricity generation from renewable energy is an important element in the Government’s development of a low-carbon economy… a significant increase in generation from large-scale renewable energy infrastructure is necessary to meet the 15% renewable energy target’. Specifically “The recovery of energy from the combustion of waste, where in accordance with the waste hierarchy will play an increasingly important role in meeting the UK’s energy needs…” and that the recovery of energy from the combustion of waste forms an important element of the waste management strategy in England and Wales. This section goes on to recognise the role that recovery of energy from waste can play in the delivery of waste management services in the UK, as long as schemes comply with the waste hierarchy and do not prejudice local, regional and national waste management strategies and plans. It is of note that the scale and location (centrally located, with excellent rail access) of the Proposed Development facilitate contribution to waste targets on a regional and national scale, and the needs assessment for the Proposed Development will consider waste strategies and plans on local, regional and national levels.

1.4.5 The White Paper (Ref 1-8), which formed the basis of the Energy Act 2008 (Ref 1-9), set out the Government’s plans for tackling climate change by reducing carbon emissions whilst ensuring the availability of secure, clean, affordable energy.

1.4.6 In response to an application for FM1 under Section 36 of the Electricity Act 1989, the SoS granted consent and deemed planning permission for FM1 in which he stated that the “Development will contribute to the meeting of landfill diversion targets under the European Landfill Directive by diverting material that is otherwise likely to end up in landfill in a manner which is consistent with the waste hierarchy”. The Proposed Development would equally contribute to meeting the targets, utilising non-hazardous materials diverted from landfill in accordance with the Waste (England and Wales) Regulations 2011, which are derived from the Waste Framework Directive 2008/98/EC (Ref 1-10) and the Waste Strategy for England 2007 (Ref 1-11). This will save landfill space and reduce the associated methane emissions, whilst providing low carbon electricity in accordance with the aims of the Energy White Paper 2007, the UK Renewable Energy Strategy (2009) (Ref 1-12), and NPSs for Energy 2011.
1.4.7 Changes to the current mix of electricity generating plant are occurring as a large number of existing oil, coal and nuclear power stations close as a result of the requirements of the European Industrial Emissions Directive (IED) (incorporating the requirements of the former Large Combustion Plant Directive (LCPD) (Ref 1-13) and/or as power stations reach the end of their operational lives. Projections quoted in EN-1 (Ref 1-5) indicate that some 22 Gigawatts (GW) of electricity generating capacity will need to be replaced in the period up to 2020. This clearly underlines the urgency of the need to provide new electricity generating capacity to ensure security of supply to homes and businesses. EN-1 Part 3.4.4 also specifically recognises the increasing need in the UK for ‘dispatchable’ power, providing the ability to meet variations in electricity demand and supply, as can be provided by the Proposed Development. This section states that “As more intermittent renewable electricity comes onto the UK grid, the ability of biomass and Energy from Waste to deliver predictable, controllable electricity is increasingly important in ensuring the security of UK supplies”.

1.4.8 In terms of energy production at the Ferrybridge Power Station site, there is a planned reduction in capacity at Ferrybridge ‘C’ Power Station by 2016, due to the required closure of Units 1 and 2 of the existing coal-fired power station. It is therefore SSE’s intention to invest in new energy production facilities at Ferrybridge by diversifying to a mix of energy types in accordance with national policy as stated above.

1.4.9 As outlined in paragraph 1.1.4 it is anticipated that the Proposed Development will help to:

- maximise energy recovery from WDF obtained from the processing of various sources of MSW, commercial and industrial waste and waste wood into a fuel suitable for use in the Proposed Development;

- complement recycling initiatives by accepting waste after these processes have been carried out, thereby forming part of an integrated waste management system; and

- maximise positive use of waste materials that may otherwise be disposed of to landfill, saving valuable landfill space. This will also result in a reduction of greenhouse gas emissions (including methane) that would otherwise have been generated from the breakdown of the waste material had it gone to landfill.

1.4.10 The need for the Proposed Development (and its location at Ferrybridge) will be assessed in detail and presented in a separate ‘Needs Analysis’ report which will form part of the DCO application. This will include detailed consideration of the conformity of the Proposed Development with the waste hierarchy and the effects of the scheme on (and ability to support) relevant waste plans, as set out in EN-3 (Ref 1-6), Part 2.5.

1.5 Consideration of Alternatives

1.5.1 The EIA will provide a full description of alternatives considered for the Proposed Development, including the ‘Do Nothing’ scenario, alternative locations and alternative layouts, technologies and systems. The following provides a summary of decisions made to date.

1.5.2 The Proposed Development is under consideration for the reasons set out above, and it is considered that the ‘Do Nothing’ scenario is not appropriate given the established need for new energy generation. Furthermore the allocation of the Site for power generation and associated infrastructure by WMDC, and the recent announcement regarding the closure of Units 1 and 2 of Ferrybridge ‘C’ Power Station underlines the importance of providing new generating capacity at the Site.

1.5.3 The reasons for the selection of Ferrybridge ‘C’ for FM1 included its location in relation to the fuel sources available in Yorkshire, availability of existing infrastructure and site remediation issues to be addressed at the other sites considered. These reasons (as set out in the ES for FM1 (Ref 1-14 and 1-15) still apply for the Proposed Development. The choice of Ferrybridge for the Proposed Development is also influenced by the location of FM1, allowing shared use of key
facilities (such as the upgraded rail link and gantry), storage areas and greater leverage for key contracts such as fuel supply.

1.5.4 The location within the Ferrybridge Power Station complex adjacent to the FM1 facility which is currently under construction has been selected for a number of reasons, including:

- allocation of the Site by the Local Planning Authority for development associated with power generation (see section 5.5.3);
- availability of facilities associated with FM1 for delivery of fuel by road and rail; and
- planned reduction in generating capacity at the Site through closure of part of Ferrybridge ‘C’ Power Station.

1.5.5 For these reasons, sites outside of the Ferrybridge Power Station complex have not been reconsidered as alternative locations for the Proposed Development, as there are not considered to be alternative sites that would be more appropriate for a development of this nature, especially considering the benefits of locating close to FM1 outlined above.

1.5.6 There are a number of options available in relation to the specific location of plant within the indicative DCO (Application Site) boundary, the layout of the plant, and the specific items of plant to be selected for use. The EIA process will feed into decision making regarding locations and plant selection (along with technical and economic information) and the decision making process will be described in full in the ES.
This document has been prepared in accordance with the scope of URS' appointment with its client and is subject to the terms of that appointment. URS accepts no liability for any use of this document other than by its client and only for the purpose for which it was prepared and provided. Only written dimensions shall be used.

© URS Infrastructure & Environment UK Limited
2 DESCRIPTION OF THE EXISTING ENVIRONMENT

2.1 Site Description

2.1.1 The Site (the land that will be encompassed within the DCO application) encompasses the footprint of the former golf course within the wider Ferrybridge Power Station complex site boundary (alternative facilities are to be secured for the Ferrybridge Golf Club as part of FM1). A parcel of the former golf course is currently being utilised as a portion of the residual land by the contractors constructing the FM1 development. The remainder of the area within the Site (Figure 1.2) allows for potential connections through the existing operational Power Station site or to the north through Fryston Wood. The wider Ferrybridge Power Station complex is bounded by the A1(M) road to the west, the River Aire to the north and east, Kirkhaw Lane and the railway line to the southeast and Hinton Lane and Stranglands Lane to the south. The settlement of Castleford is located across the A1(M) road approximately 1.25 kilometres (km), at its nearest point, to the west of the Site. The residential area of Brotherton is located approximately 600 m across the River Aire, to the east.

2.1.2 The Site lies within the administrative area of WMDC, with the boundary of Selby District Council following the River Aire, just beyond the Ferrybridge ‘C’ Power Station site boundary to the northeast.

2.1.3 The location of the Proposed Development is as shown in Figure 1.2, defined by the red line boundary within this figure. It is bound by the alignment of the A1(M) to the west and Fryston Lane to the north. The Site boundary forms an inverted U-shape with the rail siding to the immediate south, beyond which lies the FM1 plant (currently under construction), and the Heavy Fuel Oil tanks and two of the cooling towers associated with the Ferrybridge ‘C’ Power Station. A small spur is also included within the Site to the east, to allow for potential surface water abstraction and discharge facilities connecting to the River Aire (should a hybrid cooling system be selected). A small section of Fryston Wood to the north of the former route of Fryston Lane is included in the Site to allow for potential grid connections in this area. An aerial photograph of the Site is shown in Figure 2.1. It is currently proposed that the plant itself, along with the car park and any storage buildings and maintenance workshops will be located within the footprint of the former golf course. The remainder of the Site will be used for construction laydown and grid connection; potentially this area would also be used for hybrid cooling towers and associated water abstraction and discharge if this cooling option is selected. Figure 2.2 shows areas that are under consideration within the indicative DCO (Application Site) boundary for the main development, construction laydown and areas that have been included within the boundary to allow for grid and other connections.

2.1.4 The final location of the main plant will be determined through further investigation during the detailed design and full EIA stage.

2.1.5 It should be noted that where existing infrastructure is shown within the indicative DCO (Application Site) boundary (Figures 1.2 and 2.2) such as Ferrybridge ‘C’ Power Station cooling towers and infrastructure associated with coal movements, this will be retained in operational use and will remain unaffected by the Proposed Development. These areas have been included within the indicative DCO (Application Site) boundary as possible areas for grid connection as the specific location and requirements for this associated development is not yet finalised. It is not currently anticipated that any existing infrastructure will be removed or upgraded as part of the Proposed Development.

2.1.6 A portion of the former Golf Course within the Site has been stripped of topsoil and is in use as a storage area for materials associated with the FM1 development as set out in Section 2.2.

2.1.7 In terms of geology, the Site overlies a mix of Bunter or Lower Red Sandstone moving through a band of Upper Marl and into Upper Magnesian Limestone. The River Aire is the nearest open watercourse, approximately 500 m to the north east and east of the Site boundary.
Topographically the Site is one of two halves. The southern half of the Site, within the operational area of Ferrybridge ‘C’ Power Station, is predominantly flat. The northern half of the Site, encompassing the golf course sits at approximately 5 m higher than the southern half.

2.1.8 There are no internationally designated nature conservation sites within 20 km of the Site. The nearest national designation is the Fairburn and Newton Ings Site of Special Scientific Interest (SSSI) which is 1.6 km north of the Site. However part of the Fryston Park Local Wildlife Site (LWS) (as designated in the WMDC Core Strategy, and shown on the Policies Map 2012 (Ref 2-1)) bounds the Site to the north and occupies a small portion of the Site in the northeastern corner (to allow for potential grid connection to the north). This remaining area of the woodland has been severed from the wider Fryston Park site by the construction of the A1(M) motorway.

2.1.9 There are a small number of listed buildings approximately 900 m to the northwest of the Site and there are Scheduled Ancient Monuments (SAMs) just over 1 km to the south of the Site.

2.1.10 Further details on the environmental constraints and the sensitive receptors associated with the Proposed Development can be found in Section 3.4 of this report.

2.2 Site History

2.2.1 There is a long history of power generation at Ferrybridge from 1920 to the present, including the development of Ferrybridge ‘C’ coal-fired Power Station (with a capacity of 2 GW), approved in 1961. This incorporated additional land to the west of the coal-fired power station, which was subsequently severed by the realignment of the A1(M).

2.2.2 In 2001 the SoS for Trade and Industry gave consent under Section 36 of the Electricity Act 1989 and deemed planning permission under section 90(2) of the Town and Country Planning Act 1990 for the installation of flue gas desulphurisation equipment (FGD) to units Nos. 3 and 4, which was undertaken between 2006 and 2009.

2.2.3 In 2009 SSE submitted an application to the SoS for Energy and Climate Change for Section 36 consent to develop a Multifuel Power Station (FM1). An amendment was submitted in January 2011 with Section 36 consent (and deemed planning permission) granted in October 2011 for FM1, which is now under construction. The Site for the Proposed Development overlaps slightly with the boundary covered by the Section 36 consent for FM1. Under Schedule 2 Part 4 Class A of the Town and Country Planning (General Permitted Development) Order 1995 (as amended), topsoil clearance has been undertaken within a portion of the Site boundary immediately adjacent to the red line boundary of the FM1 Section 36 consent, for use as a temporary storage area for materials associated with the construction phase of the FM1 development. The Section 36 consent boundary and area currently utilised for temporary storage in connection with the FM1 development are shown in Figure 2.3 along with the indicative DCO (Application Site) boundary for the Site.

2.2.4 The Section 36 consent for FM1 provides for a plant with a greater generating capacity (up to 108 MW gross) than the Proposed Development. However, FM1 is being constructed to a similar scale to that planned for the Proposed Development (up to 90 MW gross output), using similar fuel feed stocks delivered to site using the same transport arrangement. It is the Applicant’s intention to build on the successes of, and lessons learned from FM1 when applying for permission to construct and operate the Proposed Development. FM1 is planned to be commercially operational by the summer of 2015.

2.2.5 The area occupied by the former Golf Course was historically open fields until the construction of Ferrybridge ‘C’ Power Station in the 1960s when it then became associated with the Power Station. The Golf Course itself was modified to its most recent layout (prior to the FM1 construction works) following the loss of part of the land area to the A1(M) when construction of the diverted motorway began in 2003.
2.3 Previous Environmental Studies

2.3.1 In order to comprehensively evaluate the environmental impacts associated with the Proposed Development and its cumulative impact with FM1, it is important that the findings of any previous environmental studies for the Site are considered. Key existing environmental studies for the Ferrybridge site include:

- Environmental Impact Assessment of traffic, noise and odour for proposed biomass handling plant (2005) (Ref 2-2).
- Environmental Impact Assessment for proposed Multifuel Power Station (2009) (Ref 1-13) and associated baseline surveys;
- Environmental Statement – 2011 Addendum for a proposed Multifuel Power Station (Ref 1-14); and
- Ground Investigation and Groundworks Reports produced to support enabling works for the Multifuel Power Station (2011) (Ref 2-3 to 2-5).

2.4 Potential Environmental Sensitivities/ Sensitive Receptors

2.4.1 When undertaking an EIA it is important to understand which receptors will be considered as part of the assessment. Based on information from previous assessments, a review of the study site (to include the Site and surrounding land to the extent to which receptors may be affected by the proposed study area), initial evaluation studies for FM2, and early consultations with statutory consultees, the following potential sensitive receptors to the Proposed Development have been identified (note this may not be an exhaustive list and will be reviewed in detail through the EIA process):

- Human Receptors
  - Local farms and including Holmfield Farm and Top Farm (430 m west), Manor Farm (500 m south east) and Fryston Hall Farm (1 km north);
  - Local residents at Oakland Hill off Fryston Lane immediately west of the A1(M);
  - Local residents immediately to the South of the Ferrybridge Power Station Site off Stranglands Lane and Kirkhaw Lane;
  - Local residents of the surrounding urban areas including Castleford, Brotherton, Ferrybridge and Knottingley; and
  - Users of local recreational facilities;

- Ecological Receptors
  - Fryston Park LWS, bounding the Site to the north and occupying a small portion of the northeastern corner of the Site;
  - Fairburn and Newton Ings SSSI and Local Nature Reserve, approximately 1.6 km north of the Site;
  - Madbanks and Ledsham Banks SSSI and Local Nature Reserve, approximately 4 km northeast of the Site;
  - Ecological receptors immediately within and adjacent to the Site (to be confirmed through an updated Phase 1 Habitat survey planned for spring 2013, though anticipated to be limited given the nature of the existing site);
• Hydrological / flood risk, geological and hydrogeological
  o River Aire, 600 m to the north east and east of the Site;
  o The Site lies mostly within Flood Zone 1 (low flood risk), with areas nearest the eastern boundary and a small area to the west of the current FM1 development lying within Flood Zone 2 (areas at risk of flooding during an extreme, or 1 in 1000 year, flood);
  o Groundwater resources;
• Cultural Heritage and Landscape
  o Ledstone Hall and Park, and Friarwood Valley Gardens Registered Park and Gardens, 4.7 km to the northeast of the Site;
  o Earthwork W of Ferrybridge, Ferrybridge and St Johns Priory SAMs, just over 1 km south of the Site; and
  o Key short, medium and long-distance views and the potential impact upon the Wakefield Landscape Character Areas;
• Traffic and Transport
  o Local transport network including junctions to the Motorway network;
• Other
  o Infrastructure, including the A1(M) forming the western boundary of the Site, the Pontefract Baghill to Sherburn-in-Elmet railway line 250 m to the southeast of the northern Site boundary and various overhead cables and underground services; and
  o Air Quality Management Area (AQMA) within which the Site is located.

2.4.2 These potentially sensitive receptors are discussed further within Section 6 of this report. Figure 2.4(a) & 2.4(b) illustrates a number of the environmental considerations known at this stage of the EIA within the study area (the Site and surrounding areas).
Key

- Indicative DCO (Application Site) Boundary

© Harris Corp, Earthstar Geographics LLC ©2010 Intermap ©2013 Microsoft Corporation
Proposed Land Use Within Indicative DCO (Application Site) Boundary

Key
- Indicative DCO (Application Site) Boundary
- FM1 Building and Rail Spur
- Areas to allow for ancillary development
- Main development area (Main Infrastructure and Construction laydown space)
- Area for water intake/ pipeline if required
- Area for roads, pipes, cables, potential grid connection
- Area for potential grid connection

Revision: 47066159/EN/008

This document has been prepared in accordance with the scope of URS' appointment with its client and is subject to the terms of that appointment. URS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided. Only written dimensions shall be used. © URS Infrastructure & Environment UK Limited
Plot Date:  
File Name:  
Scale @ A4 1:7,000  
Drawn GB  
Date June 13  
Checked KW  
Approved KW  
Rev. FINAL  

Copyright text here: ±  

Key  
- FM1 Building and Rail Spur  
- Indicative DCO (Application Site) Boundary  
- FM1 Section 36 consent boundary  
- Storage area for FM1 construction (Permitted Development)  

This document has been prepared in accordance with the scope of URS' appointment with its client and is subject to the terms of that appointment. URS accepts no liability for any use of this document other than by its client and only for the purpose for which it was prepared and provided. Only written dimensions shall be used. © URS Infrastructure & Environment UK Limited
Figure 2.4a

Known environmental considerations within study area

Key
- Indicative DCO (Application Site) Boundary
- 5km Study Area
- Air Quality Management Area
- Human Receptors
- Fryston Park Local Wildlife Site
- Local Nature Reserve
- SSSI

Listed Buildings
- Grade I
- Grade II*
- Grade II
- Scheduled Monument
- Registered Park and Garden
- Flood Zone 2
- Flood Zone 3
Known environmental considerations within study area

Key
- Indicative DCO (Application Site) Boundary
- 5km Study Area
- Air Quality Management Area
- Human Receptors
- Fryston Park Local Wildlife Site
- Local Nature Reserve
- SSSI

Listed Buildings
- Grade I
- Grade II*
- Grade II
- Scheduled Monument
- Registered Park and Garden
- Flood Zone 2
- Flood Zone 3

Figure 2.4b
Known environmental considerations within study area
3 PROJECT DESCRIPTION

3.1 The Proposed Development Description

3.1.1 The Proposed Development is a Multifuel Power Station with a capacity of up to 90 MW gross output (circa 70 MW net output), capable of producing low carbon electricity and heat through WDF from various sources of processed MSW, commercial and industrial waste and waste wood. It is expected that power will be exported to the distribution network. The nominal design capacity of the facility is 570,000 tonnes per annum (pa) of fuel based on a design calorific value (CV) of 12 MJ/kg. Fluctuations in the fuel Calorific Value (CV) may vary the annual waste throughput, but this will not exceed 675,000 tpa of WDF.

3.1.2 In outline the process will be as follows:

- fuel will be delivered to the Proposed Development by road, with the additional option of rail deliveries. The fuel will be unloaded in the tipping hall and stored in a fuel bunker;
- fuel will be removed from the bunker by a crane and loaded into the feed chute for delivery to the furnace either through 2 or 3 combustion lines (to accommodate alternative design configuration);
- in the furnace the fuel will be fully combusted into a combustion gas and bottom ash residues; Bottom ash will be ejected to a water bath to cool the ash and provide a gas seal;
- hot gases from the waste combustion will be passed through a boiler to raise steam. The steam will then be passed to a steam turbine to generate electricity for use within the facility and for export;
- the facility will be “CHP ready” as defined within EA guidance for CHP ready for “combustion and energy from waste plants version 1.0 February 2013”. When a local heating demand becomes available, the provision of a heat off-take to supply a network would be possible with minimal modifications to the installed system;
- the combustion gases will be cleaned in a flue gas treatment plant. This will include the injection of activated carbon, primarily to control dioxin emissions, the injection of lime or suitable equivalent to control acid gas emissions, and the use of a fabric filter to remove dust; and
- the cleaned exhaust gases will be released to atmosphere via a stack.

3.1.3 The plant will have a design life of 30 years and an operational life of up to 50 years.

3.2 Principal Development

Plant Description

3.2.1 At the current stage of design it is likely that the following components will form part of the Proposed Development. All dimensions provided are indicative and may be subject to change through the detailed design and EIA process:

- Fuel Reception and Storage – comprising up to four new weighbridges and a fully enclosed fuel reception area incorporating a Tipping Hall containing a fuel bunker. The dimensions of the fuel bunker building (including control room and administration block) will be up to 48 m height, occupying an area of approximately 4,500 m². This is based on a largely above ground bunker in accordance with EA Guidance document GB3 for storage of waste below ground level, with the bunker extending below ground for no more than 3 m to remain above
the water table. Options will also be investigated for an above ground bunker and a bunker as proposed for FM1 (circa 10 m bunker below ground) and therefore a lower building height, considering technical and environmental aspects of the various options available;

- Boiler Hall (occupying an area of up to 5,000 m² and up to 58 m in height);
- Turbine Hall (occupying an area of up to 1,600 m² and up to 28 m in height);
- Ash collection area (occupying an area of up to 2,000 m² and up to 23 m in height);
- Circuit breaker, Transformer & switch yard (occupying an area of up to 600 m² and up to 12 m in height);
- Workshops (occupying an area of up to 3,200 m² and up to 13 m in height);
- One new stack. The stack will be built to the minimum height necessary to ensure adequate dispersion of the emitted pollutants. The final height will be determined through technical studies once specific emission parameters for the stack are known. Each combustion line will have a separate flue. The maximum height for the stack is 120 m above ground level (slightly higher than the adjacent Ferrybridge ‘C’ cooling towers at 115 m but lower than the existing Ferrybridge ‘C’ emissions stacks at 198 m above ground level);
- Cooling system; two technologies are currently under consideration for the cooling system, an Air Cooled Condenser (ACC) and hybrid cooling towers. The options will be assessed in consultation with the Environment Agency (EA) to ensure whichever cooling option is installed represents the Best Available Technology (BAT) for the plant, balancing potential environmental effects (including potential fogging/icing issue on Highways), thermal efficiency and capital and operating costs of each option (occupying an area of up to 2,800 m²);
- Stack gas emission control equipment and flue gas treatment (occupying an area of approximately 3,500 m² and 40 m height);
- Above ground gas oil storage facilities for use at start up and as an auxiliary fuel (around 200 m³ storage capacity); and
- Above ground bulk storage silos or tanks for the storage of air pollution control reagents (ammonia solution, hydrated lime powder, activated carbon powder) and fly ash residue (total capacity of around 1,200 m³).

3.2.2 The concept design approach is based on ensuring sufficient flexibility to allow competitive bidding from a number of manufacturers with alternative design configurations and potential technical solutions. The development parameters for the Proposed Development will be clarified further as the design evolves through an iterative process around setting maximum and minimum parameters in accordance with the ‘Rochdale Envelope’ approach. This will be taken into account in the EIA. The main areas for consideration from an assessment of impacts and alternatives revolve around the following areas;

- Fuel Storage Options will be considered with respect to impact from environmental and visual perspectives:
  - above ground;
  - above water table, circa 3 m below ground;
  - circa 10 m below ground as per FM1; and
• Cooling (through exploring further the various options around ACC and Hybrid Cooling Towers and the impact from environmental, BAT and efficiency perspectives.

**Fuel Description**

3.2.3 The plant will be capable of burning a wide range of WDF, processed to the Applicant’s required specification. The sources of the fuels will typically comprise:

• MSW (waste from households and the household-like component of commercial and industrial waste) with delivery to the Site after processing to satisfy recycling requirements;

• Commercial and Industrial (C&I) waste with delivery to Site after processing to satisfy recycling requirements; and

• waste wood.

**Operations**

3.2.4 The facility will operate 24 hours per day, 7 days per week with programmed offline periods for maintenance.

3.2.5 Fuel will be delivered by road and rail and potentially canal. The existing rail facilities within the Ferrybridge Power Station complex are to be upgraded as part of the FM1 development including the installation of a gantry to allow offloading of containers adjacent to the FM1 site (see Figure 2.3). It is anticipated that the same facilities will be available to the Proposed Development, and the design of the Proposed Development will aim to maximise the potential for rail use. Given the Site’s location there is a possibility that the delivery of materials or removal of ash from the Site could occur by canal, though work as part of FM1 has not yet identified specific suppliers or recipients of ash that will be able to utilise such facilities. At the current time it is therefore anticipated that whilst access by canal remains a potential option that could be pursued in future, this will not be included in the DCO application for the Proposed Development and the focus will remain on road and rail transport.

3.2.6 Road deliveries will occur only between specified times, in line with agreed delivery times for FM1. Any upgrades to the internal infrastructure of the Ferrybridge Power Station site as a result of the current FM1 development will be utilised where possible.

3.2.7 Operational traffic will enter the Site through the same access route as for FM1, namely utilising the motorway network as far as possible before accessing the Site via Kirkhaw Lane. It is anticipated at the current time that construction traffic will utilise the same routes as agreed for FM1. The potential impacts of the additional truck or train movements will be considered as part of the EIA. The facility will be designed to fire on a range of fuels, with an anticipated capacity to process 570,000 tpa (fluctuations in the fuel CV may vary the annual waste throughput, but this will not exceed 675,000 tpa of fuel).

3.2.8 It is estimated that the Proposed Development will provide approximately 35 new permanent full time jobs in skilled employment positions. The employment opportunities are significantly higher during the construction phase with up to 350 personnel contracted to work on site.

**Process Description**

3.2.9 Upon arrival the WDF will be checked and weighed after which it will be moved into the fuel reception area (Tipping Hall). This comprises an enclosed building, maintained under slight negative pressure to reduce the risk of odours, dust or litter from escaping. The fuel will be discharged into a storage bunker of sufficient size to hold up to seven days fuel supply. It will be housed within the enclosed building, which will stand a maximum of 43 m high at this point (allowing headroom for the crane mechanism above the bunker).
3.2.10 The fuel will be transferred from the bunker by an overhead crane into the feed hoppers serving each of the combustion grates. The grate is envisaged to be a moving, water cooled design. The fuel passes through a number of grate modules and the boiler configuration is designed to reduce the production of Nitrogen Oxides (NOx).

3.2.11 The facility will be designed and operated to meet the requirements of the IED (Ref 3-1) and its operations will be strictly regulated by the EA under an Environmental Permit that the Applicant will apply for. The combustion control system will regulate the combustion conditions and the levels of pollutants and particulates in the flue gas before treatment.

3.2.12 The hot gases produced during the combustion process will pass through the boiler to raise steam, which will in turn reduce the flue gas temperature quickly. The rate of gas cooling will be determined by the boiler design. The steam (from 2 or 3 lines) will then be fed into a single steam turbine which will generate electricity, with the steam subsequently being condensed using either air cooled condensers or hybrid cooling towers.

3.2.13 The plant would be fully compliant with the operational and air emission parameters for incineration plant specified in the Industrial Emissions Directive (as implemented by the Environmental Permitting (England and Wales) Regulations 2007, updated 2013). The final design and configuration of the emission abatement plant would be agreed with the EA. It is envisaged that the following well proven secondary pollution control systems will be installed on the plant:

- hydrated lime, or suitable equivalent, and activated carbon injection for the abatement of hydrogen chloride, sulphur dioxide (SO2), heavy metals and organic compounds;
- bag filters will be installed to remove particulates, heavy metals and the reacted lime and activated carbon; and
- Selective Non Catalytic Reduction (SNCR) NOX abatement will be installed and operated as and when required.

3.2.14 The cleaned gases from the combustion process will be released into the atmosphere via a separate flue for each process line within a single chimney stack. The stack height will be determined following further technical modelling, but will be no greater than 120 m. The installation, operation, maintenance and emissions will be monitored in line with the Continuous Emission Monitoring System (CEMS) Code (May 1998). This will ensure ‘effective measurement, recording and standardized reporting of specified emissions and other parameters’ and ‘identifies acceptable methods and specifications for the installation and operation of such monitoring systems’.

3.2.15 The two main by-products form the Proposed Development will be bottom ash and flue gas treatment residues. Bottom ash from the combustion grates will be removed and fed into a water filled quench pit. A conveyor will then transport the wet ash to the ash storage bunker or through other means to be identified as part of detailed design. It is intended that the ash would be transferred to an offsite Ash Recycling Facility where it will be processed to produce a substitute aggregate material. If a suitable recovery facility will not accept the residue, it may be transferred for disposal to an off-site landfill.

3.2.16 The flue gas treatment residue will contain fly ash from the boiler and reagents and reaction products from the hydrated lime scrubber. This material is designated as hazardous waste and therefore is required to be treated before disposal to landfill. No process effluent water will be discharged under normal operating conditions, as it will be recycled within the plant.

**Cooling System**

3.2.17 The Proposed Development will require a cooling system to provide cooling capacity across the facility. Two technologies are currently under consideration for the cooling system, an Air Cooled
Condenser (ACC) and hybrid cooling towers. The options will be assessed in consultation with the Environment Agency to ensure whichever cooling option is installed represents the Best Available Technology (BAT) for the plant, balancing potential environmental effects, thermal efficiency and capital and operating costs of each option.

3.2.18 The EIA process will inform that decision making process in relation to cooling technologies and the ultimate location and layout of the plant within the indicative DCO (Application Site) boundary, which will include consideration of:

- noise;
- water use and discharge – water supply and subsequent discharge would be required for a hybrid cooling system; and
- plume – hybrid cooling systems have the potential to create a plume which could lead to increased risk of fogging and ice formation within the immediate vicinity of the cooling system. The selection of a hybrid cooling option would be subject to sufficiently demonstrating that there is no increased risk of fogging or ice formation on the adjacent major road (the A1(M)). To mitigate the risk of fogging of the A1(M) as a result of emissions from FM1 the deemed planning permission (Condition 63) requires the submission of a scheme to be approved by the Council in association with the Highways Agency.

3.2.19 The FM1 power station, currently under construction, will utilise an ACC system for its cooling. This is based on a full BAT study and justification setting out the various aspects of the system and its design specification, environmental considerations and cost efficiency. This BAT justification was reviewed and accepted by stakeholders including the EA. As well as meeting the conclusions of the BAT study, the choice of the ACC system also met the requirements of Condition 63 for FM1 setting out the need to demonstrate there would be no risk of fogging or icing of the adjacent A1(M) motorway as a result of the cooling system chosen.

3.2.20 A BAT study will be undertaken for the choice of cooling system for the Proposed Development and presented within the EIA.

3.2.21 Should a hybrid cooling system be selected a water supply will be required. This is likely to involve abstraction from either the River Aire or groundwater via a new borehole, and blowdown water would be discharged to the River Aire. The infrastructure required for any water abstraction and discharge will be included in the DCO application and will be described in full in the EIA.

3.3 Associated Development

3.3.1 The Planning Act 2008 (Ref 1-1) defines ‘associated development’ as development which is associated with a NSIP as defined in Part 3 of the Act, and which is granted consent under the Act. Sub-sections (2) and (3) of Section 115 of the Act set out other requirements which must be satisfied in order for development to be associated development. The Guidance on associated development document (Ref 3-2) sets out guidance on what constitutes associated development within the Act.

3.3.2 A DCO may also authorise associated development but only at the same time and as part of an application for a NSIP. It is for the Applicant to decide whether to apply for associated development as part of the DCO application or alternatively by other means (e.g. planning permission). Associated development is development which is associated with the NSIP (and should either support the construction or operation of the NSIP or help address its impacts), which is not an aim in itself but ‘subordinate to, and necessary for the development and effective operation, to its design capacity, of the NSIP. The guidance also gives examples of the types of development which may quality as associated development as including connections to
national/regional/local networks, overhead/underground electric lines and substations where required.

3.3.3 Where aspects of the Proposed Development are integral to its function and operation, carried out on the Applicant’s land (within the Site) and in any case would be included in the Project Description for the principal development, then it will be considered as part of the Proposed Development and not associated development.

3.3.4 It is anticipated that the grid connection for the Proposed Development will be included within the DCO application as associated development. At the current stage of design and assessment other aspects of associated development have not yet been determined. A full definition will be included in the ES of what aspects of the Proposed Development constitute associated development for the purposes of the DCO application.

3.4 Outline Development Programme

3.4.1 It is currently anticipated that (subject to a DCO being granted, and an investment decision being made) work on site will commence in Quarter 3 (Q3) of 2015 and will consist of approximately three years of on-site work commencing with ground preparation works followed by construction. The construction phase is therefore anticipated to be completed by Q2 of 2018 and the Proposed Development is expected to commence commercial operation that year. This programme may be influenced by the DCO application and decision making timescales, and therefore is subject to change.
4 CONSULTATION

4.1 MEL recognises that meaningful pre-application consultation is a key requirement for DCO applications. The early involvement of local communities, local authorities, statutory consultees and other stakeholders can bring about significant benefits for all parties. The overall consultation objectives are to:

- raise awareness of what is proposed and give local people, relevant local authorities, statutory consultees and other stakeholders an opportunity to comment upon the proposals, including the EIA process;
- provide clear and concise information to all sections of the local community including Preliminary Environmental Information;
- provide a range of different opportunities for members of the local community, relevant local authorities and other stakeholders to engage with the project and comment on the proposals including the EIA process and its findings;
- invite feedback and ensure that the Applicant understands the views of consultees so that these can be considered during the EIA and the design development process; and
- show how the proposals and the EIA have taken account of consultation.

4.1.2 The process of consultation is integral to the EIA process; formal consultation is required prior to the submission of a DCO application in accordance with Sections 42 and 47 of the Planning Act 2008 (Ref 1-1). Section 42 requires the applicant to consult with prescribed persons and consultation bodies, relevant local authorities and any person who is an owner, lessee, tenant or occupier of the land or who is interested in the land or has the power to release, sell or convey the land. Section 47 requires the applicant to produce a Statement of Community Consultation (SOCC) detailing how they intend to consult “people living in the vicinity of the land” and to consult in accordance with the published SOCC.

4.1.3 In order to comply with the requirements of a DCO application the Applicant must also consult stakeholders, local authorities and statutory bodies. The Applicant has held preliminary meetings to introduce the project and discuss high level aspects with a number of the prescribed consultees and local authorities as part of the scoping process. The consultees with which the Applicant has met to date are:

- Wakefield Metropolitan District Council (WMDC);
- Selby District Council;
- North Yorkshire County Council;
- Leeds City Council;
- EA;
- Natural England (NE);
- English Heritage (EH); and
- Highways Agency.

4.1.4 Consultation is important to the development of a comprehensive and balanced ES. Views of the interested parties serve to focus the environmental studies and to identify specific issues that
require further investigation. It is an on-going process as part of design development and will be an integral part of the EIA and design process.

4.1.5 The Applicant plans to undertake two stages of consultation for the Proposed Development, consisting of:

**Informal consultation:** Informal consultation with the local community, relevant technical bodies (e.g. NE and the EA) and relevant local authorities.

**Formal consultation:** Formal consultation in accordance with the Planning Act 2008 (Ref 1-1) with the local community, and relevant prescribed statutory consultees, including technical and regulatory organisations, relevant statutory undertakers, relevant local authorities, and those persons with an interest in the land required for the Proposed Development.

4.1.6 The Applicant intends to publish a Stakeholder and Community Consultation Strategy, which will outline in detail how they intend to consult both informally and formally. This will be available online (along with other key project documentation and the formal SOCC once complete) at www.multifuelenergy.com/fm2 and also by request. Information will also be provided through local newspapers and notices at relevant local locations as well as direct communication to key community groups, ward and parish councils and the local MP.

4.1.7 The Applicant currently proposes to undertake informal consultation in Q2/Q3 of 2013 for a period of at least four weeks, and formal consultation (which will be launched by the publication of the SoCC) is scheduled to commence in Q4 of 2013 with a view to submitting the DCO Application in Q2/Q3 of 2014. The consultation programme will aim to avoid holiday periods for key events (such as public consultation events).
5  PLANNING POLICY CONTEXT

5.1  Introduction

5.1.1  This Section refers to the national and local planning policies relevant to the Proposed Development. The local administrative boundaries are shown in relation to the Site in Figure 5.1.

5.1.2  A more detailed review of legislative and policy matters will be provided in a Planning Statement that will form part of the DCO application; also the ES will refer to relevant guidance, policy and legislation in each technical chapter.

5.2  Planning Act 2008

5.2.1  The Planning Act 2008 (Ref 1-1) provides a system for granting Development Consent Orders (DCOs) for NSIPs. Responsibility for receiving and examining DCO applications lies with PINS, which will make a recommendation to the relevant SoS. As confirmed in Section 1, the Proposed Development is above the 50MW threshold for onshore generating stations and is therefore categorised as a NSIP.

5.2.2  The Planning Act 2008 (Ref 1-1) enables the SoS to designate a statement as a NPS, if it sets out national policy in relation to specified descriptions of development. A number of NPSs in relation to energy infrastructure (including technology specific NPSs) were designated by the SoS for the Department of Energy and Climate Change (DECC) in July 2011.

5.2.3  The NPSs that are relevant to the Proposed Development are:

- Overarching NPS for Energy (EN-1) (Ref 1-5); and
- NPS for Renewable Energy (EN-3) (Ref 1-6).

5.2.4  The NPS for Electricity Networks Infrastructure (EN-5) (Ref 1-7) may also be relevant.

5.2.5  EN-1 (Ref 1-5), in combination with the relevant technology specific NPSs provides the primary basis for decisions by the SoS on energy related NSIPs. In making a decision, the SoS must also have regard to any local impact report submitted by a relevant local authority, as well as other matters which the SoS considers both important and relevant to the decision. Other matters that may be considered both important and relevant may include local development plan documents (DPDs). The NPSs provide guidance on assessment principles and identify a number of generic impacts relating to energy infrastructure that applicants should consider in preparing their application and which the SoS should have regard to in determining applications.

5.2.6  The SoS is required to determine applications in accordance with policy set out in the relevant NPSs, except for where this would lead to the UK being in breach of any of its international obligations; the decision would be in breach of any statutory duty that applies to examining or decision making; be unlawful; result in adverse impacts from the Proposed Development outweighing the benefits; or be contrary to regulations about how decisions are to be taken.

5.2.7  The scope of the EIA undertaken will address the requirements set out in NPSs EN-1 (Ref 1-5), EN-3 (Ref 1-6) and EN-5 (Ref 1-7). In particular, the scope will take account of EN-1 Part 4 ‘Assessment Principles’ and Part 5 ‘Generic Impacts’ and EN-3 Part 2. The latter addresses matters, which will be considered in the EIA on a topic-by-topic basis, including specifying what is required in terms of both an ‘applicant’s assessment’ and ‘decision making’ and ‘mitigation’.
5.3 National Planning Policy Framework (NPPF)

5.3.1 The NPPF (Ref 5-1) came into effect in March 2012; it sets out the Government’s planning policies for England and how they are to be applied. The NPPF is clear that it does not contain specific policies for NSIPs. Such applications are to be determined in accordance with the Planning Act 2008 (Ref 1-1) and relevant NPSs as well as any other matters that are considered both important and relevant (which may include the NPPF). It is also envisaged in the NPPF that due weight will be given to relevant policies in existing development plans according to their degree of consistency with the NPPF. Therefore the EIA and ES will have regard to the NPPF as part of the overall framework of national planning policy.

5.4 National Waste Policy


5.5 Wakefield Development Plan

5.5.1 While EN-1 (Ref 1-5) recognises that local development plan documents may be both important and relevant to decision making; in the event of conflict with an NPS, it is expected that the latter will prevail.

5.5.2 Within WMDC’s area, the following development plan documents will be considered during the EIA process:

- Wakefield Metropolitan District Council Development Policies Development Plan Document (2009);
- Wakefield Metropolitan District Council Waste Development Plan Document (2009); and
- Wakefield Metropolitan District Council Site Specific Policies Local Plan (2012) (Ref 2-1).

5.5.3 The SSLP contains designated Employment Zones (EZs). EZ18 Knottingley (Inc. Ferrybridge) refers to land at Ferrybridge Power Station. The SSLP states “Within this zone permissible development proposals will be restricted to employment development directly associated with power generation and related infrastructure, including the generation of renewable energy [...] The creation of an Employment Zone on part of the operational land at Ferrybridge Power Station, for power generation and associated uses related infrastructure only will encourage investment in power generation, including generation from renewable energy sources”.

5.5.4 The SSLP also stipulates that a number of considerations should be addressed as part of any future development proposals, including:

- recognising, conserving and enhancing Fryston Park Wood LWS;
- taking full account of parts of the Site that are affected by flood zones;
- for proposals for the development of power stations, passing the exception and sequential tests in relation to flood risk;
- assessing impact on public transport and transport networks;
- assessing archaeological potential of the Site; and
- providing a survey on the potential ecological value of the Site.
Known environmental considerations within study area

Ferrybridge Multifuel 2

Figure 5.1
6 POTENTIALLY SIGNIFICANT EIA ISSUES

6.1 Introduction

6.1.1 The following sections present a discussion of the likely significant environmental effects associated with the Proposed Development that it is proposed will be considered as part of the EIA. The methodology and assessment criteria that will be used to assess the potential significance of the identified effects are also outlined alongside the potential mitigation measures that may be considered for implementation following assessment (where these are currently known). Consideration will be made of likely environmental effects of all types of impacts and identification of appropriate mitigation measures, including those referenced in NPS EN-1 Part 5 (Ref 1-5) and EN-3 Part 2 (Ref 1-6).

6.1.2 Due to the proximity and comparability with the FM1 plant under construction, studies undertaken to inform the planning and design process for FM1 have been taken into consideration within this Scoping Report. In order to inform early planning for the Proposed Development a number of initial environmental appraisals have already been undertaken based on the known environmental sensitivities from FM1 and a summary of the findings is incorporated into this section.

6.1.3 The FM1 plant under construction is located immediately to the south of the Site. Due to the timing of the planned application for the Proposed Development, the baseline studies will not include information measured from the operation of FM1, since it will not be operational until autumn 2014. Due to the proximity of both location and timescale of the two plants the cumulative impacts of both plants will be considered as part of the main assessments of the EIA rather than in a separate cumulative impacts assessment chapter. This will be achieved, where appropriate, through modelling of combined emissions of both FM1 and the Proposed Development to demonstrate the cumulative effects of both plants.

6.1.4 Other planned or recently consented developments with the potential to have a cumulative environmental effect with the Proposed Development in the vicinity of the Site will be considered as part of the cumulative impacts chapter of the ES, as set out in Section 6 of this report and also referred to in section 9.2.

6.2 Air Quality

Baseline Conditions

6.2.1 The Site is located within an Air Quality Management Area (AQMA) declared by Wakefield Council due to the possibility of exceedances of the annual average air quality objective for nitrogen dioxide, predominantly as a consequence of emissions from motorway traffic. WMDC have declared a total of eight AQMAs in their region.

6.2.2 Baseline, or existing, background air quality at the Site will be determined using data from nearby representative automatic monitoring stations (as used in the impact assessment for FM1), supplemented with available Local Authority diffusion tube sampling and Department for the Environment, Food and Rural Affairs (DEFRA) background air quality maps, where appropriate.

6.2.3 From previous assessments it is known that available ambient air quality data are quite limited in the likely areas of greatest impact of emissions from the Proposed Development. Baseline monitoring is planned for FM1 in these areas, and data from this will be utilised in the assessment for the Proposed Development once it becomes available.

6.2.4 The assessment will be undertaken in line with the relevant regulations as detailed in Section 5.2 of EN-1 (Ref 1-5) and the guidance provided in Section 2.5 of EN-3 (Ref 1-6).
6.2.5 The Proposed Development, when operational, will emit known pollutants to air, via a single stack. These will include the combustion products NOx, SO2 and particulate matter, for which Air Quality Objectives have been set as part of the National Air Quality Strategy (NAQS), as well as other species. The plant will be designed and operated to be fully compliant with the emission limits specified for waste incineration in the IED. Emissions to air will also arise from vehicles transporting fuel to the Site during its operation. During the construction phase, emissions to air will include exhaust emissions from construction traffic, construction vehicles and on-site plant, and dust associated with site preparation and earth works.

6.2.6 An atmospheric impact assessment will be undertaken for the main point source emissions, utilising air dispersion modelling to assess the impact to air quality potentially brought about through the generation and dispersion of emissions from the proposed plant. The study will assess the predicted concentrations of combustion pollutants and trace pollutants specifically detailed in the IED at a number of identified human and ecological sensitive receptors (such as residential properties, schools, designated nature sites) within the local area, as well as specifically on the AQMA. Impacts will be assessed with reference to NAQS objectives, National Objectives for the Protection of Vegetation and Ecosystems and Environmental Assessment Levels, as appropriate. Critical loads and levels on ecological receptors will also be evaluated where appropriate.

6.2.7 The atmospheric dispersion modelling study of operational emissions will be undertaken using the Atmospheric Dispersion Modelling System (ADMS) model, currently version 5.0. ADMS is widely used by industry and the regulatory authorities.

6.2.8 The modelling will be based on Emission Limit Values (ELVs) set within the IED and assuming that the plant is operating at full load, thereby presenting a worst-case scenario in the ES. Should it be deemed appropriate to model lower loads, justification for this will be provided and the load clearly stated in the assessment. Modelling will be undertaken in accordance with the guidance outlined in the EA documents Horizontal Guidance Note H1 – Annex (f) (Ref 6-1) and “Air dispersion modelling report requirements for detailed air dispersion modelling” (Ref 6-2) using local meteorological data.

6.2.9 An assessment will also be undertaken of potential plume visibility from stack emissions and hybrid cooling towers, should they be installed. The latter will be assessed in particular with regard to avoiding any potential impact of fogging or icing on the A1(M) motorway.

6.2.10 As the fuel being used at the Proposed Development will be derived from waste, there may also be the potential for odour generation from the fuel storage and handling operations, as well as from the vehicles transporting the fuel to site. Potential odour sources will be identified and assessed within the EIA and suitable control measures employed where required.

6.2.11 An air quality impact assessment will also be undertaken on the effects of road traffic on the local road network associated with the construction and operation of the Proposed Development, in accordance with the methods outlined in the guidance for local authorities (LAQM.TG09, Ref 6-3)). In addition, potential impacts and nuisance from site clearance, construction dust and mobile plant exhaust emissions generated during the construction phase of the plant will be considered using a basic screening assessment and supplemented by case studies where appropriate. Where necessary, mitigation measures will be recommended for the control of dust and site plant emissions during demolition or construction works to minimise or remove the potential impacts.

6.2.12 Given the subjectivity that can occur when attempting to assign a level of significance to a given air quality impact, URS has produced a set of quantitative significance criteria for air quality matters. These are based on:
6.2.13 A separate Human Health Risk Assessment (HHRA) will be undertaken for emissions of dioxins and furans from the facility, considering emissions at IED limits and potential exposure pathways in accordance with the US EPA Human Health Risk Assessment Protocol (Ref 6-6). Exposure through inhalation and ingestion will be calculated using appropriate emission factors.

Findings of Initial Appraisal

6.2.14 To inform early design works, an initial appraisal has been undertaken and has considered the impacts of:

- emissions from the Proposed Development;
- emissions from road traffic attributed to the construction and operation of the Proposed Development;
- emissions generated by construction plant on site; and
- dust generation during construction works.

6.2.15 The results of the appraisal are being used to define the initial design of the Proposed Development, particularly with regard to optimising the location within the Site, the layout of plant buildings and the choice of stack height.

6.3 Noise and Vibration

Baseline Conditions

6.3.1 As discussed above, a number of residential receptors are located in the area surrounding the Site, including the settlements of Brotherton, Ferrybridge, Knottingley and Castleford and a number of farm properties in the immediate vicinity. The nearest such receptors are Holmfield Farm and Top Farm (430 m west), Manor Farm adjacent to Kirkhaw Lane (500 m south east) and Fryston Hall Farm (1 km north) and residential properties immediately to the south of the wider power station site on Stranglands Lane and to the west at Oakland Hill off Fryston Lane (separated from the Site by the A1(M)).

6.3.2 Potential ecological receptors include Fryston and Newton Ings SSSI to the north of the Site and Fryston Park LWS immediately to the north of the Site.

6.3.3 Baseline noise monitoring has been undertaken to inform the FM1 project assessment and development, and this will be utilised within the assessment for the Proposed Development along with supplementary information obtained to inform this EIA.

6.3.4 Consent was granted by the SoS for Energy and Climate Change in 2011 for the development of a generating plant of up to 108 MW gross output (FM1). Details of the scheme as built, approved by the local planning authority in accordance with the Section 36 Consent, are for a power station of circa 90 MW gross output. It is likely that noise emissions from plant being built will therefore be lower than those predicted within the EIA for that plant due to the lower power output. In addition one of the conditions of the FM1 Environmental Permit requires the emitted noise levels
to meet the design criteria set out in the application. Ongoing noise modelling and monitoring work to support the final design for FM1, along with final predictions of noise levels from that plant are expected to be available for use within the assessment for the Proposed Development. This will be taken into account when setting the baseline for the Proposed Development (i.e. the FM1 proportion of the anticipated baseline will be based on the final design and predicted noise levels rather than those presented in the FM1 EIA). The assessment will be undertaken in consideration of Section 5.11 of EN-1 (Ref 1-5) and Section 2.5 of EN-3 (Ref 1-6).

**Scope of Assessment**

6.3.5 The following potential impacts are likely to be associated with the Proposed Development:

- construction noise and vibration impacts (including construction traffic on public roads);
- operational noise impacts from the new plant; and
- operational noise impacts from road traffic on public roads.

6.3.6 Based on the distance between the Site and the nearest residential receptors, significant vibration impacts associated with Site operational activities are considered unlikely, although they will still be considered as part of the EIA.

6.3.7 The scope of the noise and vibration assessment will be:

- identification of nearest noise sensitive receptors;
- liaison with Local Authorities’ Environmental Health Officer(s) to agree scope and methodology of the noise assessment, including baseline noise monitoring locations, if additional monitoring is required, and measurement protocol;
- establishment of baseline noise levels in the locality; and
- assessment of the impact of predicted noise levels at the nearest noise sensitive receptors from the construction and operation of the Proposed Development including any works associated with the construction of water pipeline or electrical connection if required. This will include:
  1. Construction noise and vibration (including construction traffic on public roads).
  2. Operational noise and vibration (including delivery vehicles on public roads).

6.3.8 The noise and vibration assessment will be carried out in accordance with the following guidance:

- British Standard 5228:1 2009 ‘Code of practice for noise and vibration control on open sites’ Noise;
- British Standard 5228:2 2009 ‘Code of practice for noise and vibration control on open sites’ Vibration;
- BS 4142: 1997 ‘Method for rating noise affecting mixed residential and industrial areas’;
- British Standard 7385: 1993 ‘Evaluation and measurement for vibration in buildings’;
6.3.9 Noise predictions for proposed construction activities will be carried out for the Proposed Development, based on plant and equipment to be used, distances to receptors and screening, together with the use of any potential noise control mitigation measures such as work procedures, screening, working hours and monitoring activities to determine the predicted reduction in noise and vibration and the potential residual significant effects. Predictions will be carried out using the BS5228 methodology. Noise mapping (using CadnaA) may be used for noise predictions where significant benefits from screening are envisaged.

6.3.10 Any significant vibration sources will be assessed against BS6472 and BS7385. Construction traffic noise will be predicted using the ‘Calculation of Road Traffic Noise’ (CRTN) methodology (Ref 6-7).

6.3.11 Noise levels at environmental receptor positions will be predicted arising from new plant and any other major noise sources associated with the Proposed Development, based on noise emission data, plant location and operational modes. Noise predictions will be carried out using CadnaA noise mapping software. A baseline noise assessment of both day and night noise levels will be undertaken which will establish both background noise levels at the sensitive receptors, and ambient levels at the facades of the Proposed Development. Any proposed noise control mitigation measures will be incorporated into the model.

6.3.12 Predicted noise levels will be assessed according to criteria from BS4142 and from EA Horizontal Guidance H3 (Ref 6-8).

6.3.13 Any significant vibration sources will be assessed against BS6472 and BS7385 Traffic noise assessments will be carried out according to CRTN (road) and ‘Calculation of Rail Noise’ CRN (rail) (Ref 6-9).

6.3.14 All modelling will take into account the predicted noise levels from operation of FM1 cumulatively with additional noise that may be generated from the Proposed Development.

6.3.15 One of the potential noise emissions from the Proposed Development is from the cooling system, with two alternative options available. Both options will be evaluated in the noise assessment and the results will be incorporated as part of the BAT assessment informing the choice of cooling system.

**Findings of Initial Appraisal**

6.3.16 An initial appraisal has been undertaken to inform early design and planning works for the Proposed Development. The early appraisal considered the nearby sensitive noise receptors of Oakland Hill, off Fryston Lane, and Holmfield Farm, both to the west of the Proposed Development. These receptors were highlighted as being the most sensitive to changes arising from the FM1 development, therefore early consideration has been given to potential cumulative effects of the Proposed Development with FM1.

6.3.17 A number of options have been modelled to inform the design and layout of the Proposed Development so as to minimise noise impacts on noise sensitive receptors, including consideration of whether the position or layout of the Proposed Development has the potential to shield noise effects of FM1, considering a range of layouts to minimise noise and building designs to minimise noise emitted.
6.3.18 Careful design of the layout of plant within buildings can reduce the level of noise that breaks out from the building at key façades. Cladding of internal walls with sound absorptive material can prevent the build-up of reverberated noise and thus further reduce the level of noise radiated from the building envelope.

6.3.19 Further modelling is underway to inform the design process, including consideration of different cooling systems, alternative building layouts and locations and consideration of individual noise sources within the Proposed Development. The assessment will also be updated through the EIA process as the information regarding noise from FM1 becomes more robust through the detailed design process for FM1. Noise mitigation measures will be included within the design of FM2 as required.

6.4 Transportation and Access

Baseline Conditions

6.4.1 The DCO application will include deliveries by road and rail as the primary transport options. Deliveries during the construction phase (and removal of any waste materials) will be by road. The operation will involve the delivery of fuel and consumables, such as lime and the removal of by-products including bottom ash and flue gas treatment residues. The majority of traffic movements are anticipated to be associated with fuel delivery due to the volume involved.

6.4.2 The Applicant is continuing to examine options for delivery of fuel and removal of by-products by rail and barge and has invested significantly in the onsite rail infrastructure as part of the FM1 project to support the wider site. Whilst barge remains a theoretical alternative, there are currently no identified suppliers of fuel or other deliveries, or recipients of ash that are able to commit to deliver by barge, therefore this is not currently anticipated to be a primary transport option within the DCO application. The EIA will consider the potential for delivery by rail, but will also consider a worst case scenario of all deliveries to and from the Site being by road. This allows the maximum potential impact on road use to be assessed, though the aim will be to reduce road use where economically possible and where suppliers have the facilities to provide fuel by rail. An integrated strategy (Integrated Transport Plan) for transportation for the Ferrybridge Power Station complex will be pursued alongside the development of the project specific Transport Assessment (TA) and Travel Plan.

6.4.3 Road traffic access to the Site will be via the existing access route off Stranglands Lane via Kirkhaw Lane. The Study Area for this appraisal covers the same area as the previous transport work undertaken to support the planning application for FM1, which includes the following highway network:

- Western Access – Stranglands Lane / Hinton Lane / Fryston Lane;
- Eastern Access – Stranglands Lane / Kirkhaw Lane;
- Stranglands Lane / Old Great North Road / The Square; and
- A162 Ferrybridge Bypass.

6.4.4 Traffic surveys were undertaken in 2009 at the above locations. These will be updated to 2013 traffic flows by undertaking new traffic surveys in April / May 2013 to support any future planning application. Traffic count data are also available from the Department for Transport (DfT) for the A162, Ferrybridge Bypass. It has been established from these counts that the weekday morning and evening peak are 0800 – 0900 hours and 1700 – 1800 hours respectively.

6.4.5 Typical capacities for a variety of road types are provided within the DMRB (Ref 6-5). The assumed capacities, which are quoted in the DMRB as one-way flows, are 1,020 vehicles per hour in each direction or 2,040 vehicles in two-directions. This is equivalent to 48,960 vehicles
per day in two directions for single carriageway roads and 97,920 for dual carriageways. By comparing the hourly flows on the roads examined with the capacity limits indicated above, it is apparent that the roads within the vicinity of the Site are operating well below their respective capacity limits, even at peak times. This would indicate that there is a low degree of sensitivity of the study area, in terms of traffic flow capacities, to changes in these flows.

6.4.6 In October 2012 funding for the A162 Dish Hill roundabout was approved. The improvement scheme involves a new roundabout at Dish Hill, Ferrybridge, just north of the Site. The roundabout will enable the diversion of all heavy goods vehicle (HGV) traffic away from Ferrybridge centre by allowing southbound A162 traffic to turn directly onto the northbound carriageway and then U-turn at the proposed new roundabout. This is beneficial to the local area as A162 traffic would be removed completely from the residential and sensitive areas of The Square, High Street and Argyle Road. The roundabout will also improve road safety at the junction of Low Street, Brotherton and the A162. Once completed, the new roundabout will enable a Traffic Regulation Order (TRO) to be implemented, which will prevent HGVs from travelling through the centre of Ferrybridge.

6.4.7 The works are due to be completed in late 2013 prior to the consented FM1 construction completion (the funding that has been made available for the scheme requires the upgrade to be completed by December 2013).

Scope of Assessment

6.4.8 The Transport chapter of the ES will comprise an assessment of the effects of the Proposed Development on the existing transport infrastructure, including both construction and operation traffic. It will also take into consideration the cumulative effect of the traffic levels during the operational phase of FM1 alongside the predicted figures for the Proposed Development. The assessment will address the effect of potential fuel deliveries by road and rail, the impact of truck and private car movements, and pedestrian and cycle movements. A standalone TA and Traffic Plan will also be produced to support the DCO Application.

6.4.9 Consultations with various parties will be on-going during the EIA process and during preparation of the TA and Traffic Plan. The scope of work for the TA will be agreed directly with the relevant Transportation Officers at Wakefield and Selby Councils, though it is envisaged to comprise:

- establishment of baseline conditions for all modes of transport including movement flows for road traffic based on available data and recent surveys;
- an outline of the Site context including consideration of accessibility by all main transport modes;
- a review of highway safety issues including examination of personal injury accident data;
- establishment of construction traffic flows;
- assessment of the transport implications of the Proposed Development in combination with consented development and highway schemes;
- an assessment of the travel demands expected to arise from the Proposed Development;
- consideration of the sweep required by abnormal loads during the construction phase;
- a forecast of the likely distribution of trips across the catchment area;
- projections of the modal splits anticipated;
• consideration of bus and rail provision, capacity and access issues;
• a review of walking and cycling issues including those related to the highways surrounding the Site;
• a description of the parking and servicing proposals;
• a framework of measures to be included in development travel plans; and
• a summary of the significant residual and cumulative effects and consideration of mitigation measures where appropriate to reduce adverse effects of changes in trip generation and distribution.

Findings of the Initial Appraisal

6.4.10 An initial appraisal has been undertaken to inform early design and planning works, assuming all deliveries to and from the Site for the construction and operational phase would be via road vehicle. The appraisal therefore is considered to represent a worst case scenario for road traffic impact. The assessment within the full EIA will take account of the latest proposals in relation to potential use of rail, but will also present the worst case scenario in terms of road traffic. The impacts of construction traffic on all road sections and junctions were assessed as likely to be of negligible impact and significance apart from Kirkhaw Lane where the increase in total traffic is forecast to potentially be of minor magnitude, just below the 60% threshold, as defined by DMRB methodology (Ref 6-5). The sensitivity of this road to increases in traffic is considered to be very low, but this will be considered in more detail in the full TA.

6.4.11 Operation of the Proposed Development will result in fewer total traffic movements per day than those associated with peak construction traffic but a higher number of HGV movements. Based on all deliveries and ash removal from the Site taking place by road, the total increase in road deliveries as a result of the Proposed Development has been modelled (in line with the methodology set out in Section 8.2). The initial results show that traffic associated with the operational use is likely to result in negligible traffic impact on the surrounding roads during both the AM and PM peak periods. Further modelling will be undertaken for the TA and EIA.

6.4.12 The generation of traffic associated with the operation of the Proposed Development, taking into account Travel Plan measures such as car sharing, cycling and public transport is likely to be minimal and impose an insignificant impact on the local highway network; however this will be assessed and presented in more detail in the full assessment.

6.5 Ecology

Baseline Conditions

6.5.1 An Extended Phase 1 Habitat survey undertaken on the Site and subsequent species surveys identified the following:
• the former golf course is dominated by species poor amenity grassland; and
• the pond within the golf course supports smooth newts, common toad and common frog, but not great-crested newts. The pond also contains carp. Ponds, such as the pond on the golf course, are a habitat of Principal Importance under the Natural Environment and Rural Communities Act 2006 (NERC Act) (Ref 6-10).

6.5.2 The topsoil strip over part of the golf course for the construction of FM1 has resulted in disturbance of the area. Further assessment of this will be made as part of the updated Phase 1 Habitat survey, planned for Spring 2013 to confirm and update existing survey data. Should any
potential for protected species be identified, appropriate specialist surveys will be carried out, although based on previous surveys and subsequent site works this is not anticipated to be likely.

6.5.3 The nearest statutory designated nature conservation areas are the Fairburn and Newton Ing SSSI and Local Nature Reserve (LNR), which lies approximately 1.6 km north of the Site. This site has been designated for its value as wetland habitat. There are no internationally protected (Natura 2000) sites within a 20 km radius of the Site (the nearest being Skipwith Common Special Area of Conservation (SAC), just over 20 km to the North East), at which distance no significant air quality or other impacts would occur, therefore it is not anticipated that a Habitats Regulations Assessment will be required for the project, as was the case with the FM1 development.

6.5.4 Fryston Park LWS runs along the northern boundary of the Site, with part of the indicative DCO (Application Site) boundary extending into the LWS to allow for possible grid connection works. Since its designation, this woodland area has been separated from the main part of the LWS by the construction of the A1(M), leaving this 3.4 hectares of woodland isolated and separated from the main LWS site. The isolation of the woodland from the main part of the LWS means its value is reduced but it still has potential to contain important woodland flora including the regionally rare and nationally scarce green-flowered helleborine (Epipactis phyllanthes).

6.5.5 Lowland mixed deciduous woodland, such as this, is listed habitat of Principal Importance in England under Section 41 of the NERC Act. Section 40 of the NERC Act requires that:

“Every public body must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”

6.5.6 The NERC Act also includes a list of habitats and species which are of principal importance and should be used by public bodies when implementing their duty under Section 40.

6.5.7 The ecological baseline for the Site will be confirmed by gathering both primary survey data (from previous studies to inform FM1 and updated for this EIA of the Proposed Development) and secondary background information. A desktop ecological survey will be completed that reviews legislation, national, regional and local planning policy as well as any relevant national or local Biodiversity Action Plan (BAP). The review will also identify and examine local biological record centres and any other paper or electronic databases, e.g. Multi-Agency Geographic Information for the Countryside (MAGIC), National Biodiversity Network (NBN) in order to fully understand the ecological history of the Site and the surrounding area as well as policy affecting it.

Scope of the Assessment

6.5.8 The golf course habitat is likely to be of low, site specific, value so offering no constraints. The golf course pond has district level value with no formal designation. Ponds are a habitat of principal importance for biodiversity under the NERC Act (Ref 6-10) and the golf course pond contains common toad, a species of principal importance under the NERC Act (though again, not protected). The actual quality and conservation value of the pond (given its isolation and the level of disturbance in surrounding terrestrial habitat) will be assessed as part of the EIA. If the pond is lost, either another of similar character will be built to mitigate for its loss and offer replacement habitat for common toad and other amphibians, or alternative mitigation will be investigated. The isolation and presence of fish in the pond and the surrounding habitat means that colonisation by great-crested newt will almost certainly have been precluded and consideration of the species should not be necessary, although this will be evaluated as part of the EIA.

6.5.9 The habitat survey will be performed within the Site boundary to assess the value of the habitats to be directly affected and lost. It will also encompass the area of Fryston Park Wood immediately to the north of the Site. The conclusions of the survey will be used to inform the need for any further ecological surveys. Any ecological survey work on the Site will be undertaken following established guidance and at the correct time of year. NE and other relevant organisations will be consulted on the methodology and scope of all ecological surveys.
6.5.10 The Proposed Development is considered unlikely to directly affect any statutory nature conservation sites; potential indirect effects from air emissions will be assessed as part of the air quality assessment and the effects of any emissions on ecological receptors (including statutory designated sites) will be assessed as part of the ecological impact assessment.

6.5.11 The current indicative DCO (Application Site) boundary includes a small area at the eastern edge of the woodland designated as LWS (Fryston Park). This is to allow for possible works to facilitate an electrical connection for the Proposed Development, utilising existing cables that run north through the woodland, though scale of works that may be required (and whether there would be any loss of vegetation) is yet to be confirmed. Any potential direct impact on the LWS will be evaluated within the EIA and mitigated accordingly. Any potential indirect effects of construction and operation (such as smothering by dust or disturbance) on the woodland will also be considered as part of the impact assessment, and appropriate mitigation measures incorporated, including protection measures to protect retained vegetation.

6.5.12 The ecological baseline for the Site will be fully described, and any ecological receptors that are likely to be significantly impacted will be identified. These potential impacts will then be assessed using the Institute for Ecology and Environmental Management (IEEM) Ecological Impact Assessment Guidance (Ref 6-11). Any adverse significant impacts will be mitigated or compensated for where necessary and a number of ecological enhancements will also be implemented. The assessment, any requirements for mitigation, and the residual effects will be presented within the Ecology Chapter of the ES.

6.6 Ground Contamination and Soil Quality

6.6.1 The majority of the Site is currently a golf course with limited historical development. However, areas in the south and east of the Proposed Development boundary form part of the Ferrybridge Power Station complex and have previously undergone development. There is substantial information already available regarding adjacent areas to the Site (and some within the southern area of the Site), from previous ground investigations undertaken to inform permitting associated with operational aspects of the Ferrybridge ‘C’ Power Station and the consenting for FM1.

6.6.2 During construction of FM1 asbestos and limited heavy fuel oil contamination was identified in a small area adjacent to the southern boundary of the Site during construction of an underground fuel bunker. This has been demarcated and the material tested and removed from site for disposal. Due to its proximity to the Site there is, however, potential for similar contamination to be located in the south eastern area of the Proposed Development. This will be investigated as part of the EIA process but is anticipated to be very localised if present.

6.6.3 A geotechnical appraisal will be undertaken as required to inform site layout and foundation design.

6.6.4 The EIA chapter will provide an assessment of ground contamination and soil quality at the Site. The study area will include areas within and immediately adjacent to the Site. Beyond these limits it is considered that potential impacts associated with geology and land condition will not be significant. The assessment will consider the potential for new pathways between contamination sources (if present) and sensitive receptors (water resources, human health and built structures) to be created during the construction of the Proposed Development.

6.6.5 Initially a Phase 1 desk-based assessment will be undertaken to identify the potential for contamination (based on historical uses and data from previous site investigations and intrusive ground works at the Site) and potential pathways to sensitive receptors on and off the Site. The
desk study will be supplemented by a site walkover to obtain more information on potential site sources of contamination if appropriate.

6.6.6 Ground investigation may be required prior to the completion of the impact assessment to supplement already available information. The investigation will be designed and undertaken in accordance with good practice, the purpose of which will be to determine the ground conditions across the Proposed Development area and to identify any potential contamination and the pathways by which sources and receptors may be connected and to inform design works. On completion of the works the ground conditions will be assessed against industry standard guidance criteria and a conceptual site model (CSM) will be developed and where appropriate remediation measures proposed.

6.6.7 The assessment presented as part of this impact assessment will consider the results of the Site specific Phase 1 Desk Study and ground investigation and take into consideration the CSM when assessing the potential impacts and effects of the Proposed Development. Where appropriate, the ES will incorporate measures for the clean-up (remediation) of any contaminated land encountered during the construction phase. Similarly, mitigation measures will be proposed in order to eliminate the risk of mobilising contaminants during construction.

6.6.8 Information on ground conditions will also be utilised within other assessments as part of the EIA, particularly water quality and drainage.

6.7 Hydrology and Hydrogeology (including Flood Risk)

Baseline Conditions

6.7.1 The River Aire is located to the north east and east of the Site and there a number of other watercourses located either on or in close proximity to the Proposed Development including surface water ponds in the north of the Site, surface water drains to the south and east and Fryston Beck to the southwest. There are no known surface water bodies with designations for nature conservation importance in hydrological connectivity to the Site.

6.7.2 The Site lies mostly within Flood Zone 1 (low flood risk), with areas nearest the eastern boundary and a small area to the west of the current FM1 development lying within Flood Zone 2 (areas at risk of flooding during an extreme, or 1 in 1000 year, flood).

6.7.3 The hydrogeology of the area is known to be complex, with the Site overlying a Principal Aquifer and heavily fractured geology. Detailed hydrogeological studies and risk assessments undertaken to inform the FM1 works will be utilised as part of the assessment.

6.7.4 The assessment will be undertaken in consideration of Section 5.15 of EN-1 (Ref 1-5) and Section 2.5 of EN-3 (Ref 1-6) and demonstrate that appropriate measures will be put into place to avoid or minimise any adverse impacts.

Scope of Assessment

6.7.5 The Proposed Development has the potential to impact surface and groundwater in various ways. During construction, potential impacts include contamination from suspended solids in site runoff and accidental discharge of pollutants held on site. Preventative measures will be included within the scheme design. Potential impacts during the operational phase include those associated with long-term changes to drainage and flow. These could affect receiving waterbodies in terms of their use and attributes, such as their ability to support aquatic life, dilute and remove pollutants and associated impacts such as erosion and flood risk.

6.7.6 A number of options are under investigation for the storage of fuel once it has been delivered to site. The fuel will be stored in an enclosed bunker, currently shown within the project description...
to be positioned above the water table (3 to 4 m below ground). There are a number of options under consideration for the fuel bunker, however, including a fully underground bunker (as has been constructed for FM1), a partially sunken bunker (so part is below ground but the base remains above the water table) or a bunker fully positioned on the surface. These options will be investigated from a technical and environmental perspective including potential for impact on groundwater resources during both the construction and operation phases, and potential implications on the landscape and visual and noise impacts of the wider development. The final selection will be influenced by feedback during the consultation process and by a BAT assessment incorporating consideration of technical, operational and environmental aspects. The bunker design may not be finalised fully prior to the DCO application, as set out in paragraph 3.2.2, however if this is the case the maximum and minimum parameters will be set out in the EIA and fully assessed.

6.7.7 The scope of the hydrology and hydrogeology chapter will therefore be to consider all controlled waters, which are in hydraulic conductivity with the Site, and have the potential to be impacted upon during the life span of the Proposed Development.

6.7.8 Information from previous assessments at the Site, supported by an updated desk based study, will be used to confirm all potential receptors and to establish the baseline. This will include all available water quality monitoring data from EA monitoring regimes (including Water Framework Directive (WFD) (Ref 6-12) monitoring), source protection zone information, historical pollution incidents and local abstraction and discharge consents. The Humber River Basin Management Plan (Ref 6-13) will also be utilised to establish surface and groundwater status and objectives under the WFD and to establish measures that have been determined to be required for local waterbodies to meet good Ecological Status under the Directive and associated UK Regulations (Ref 6-14). Consultation will be undertaken with the EA, the Wakefield and Selby Councils, Yorkshire Water and the British Geological Society in order to obtain all relevant water resource quality and use related information.

6.7.9 The potential impacts of the Proposed Development on the water environment will be assessed. This includes the potential impacts during both construction and operation and includes an assessment of both surface water and ground water including the effects of run-off, fuel movements and fuel storage on water quality. The ES will identify the baseline conditions (and their importance) at the Site and within the surrounding area; it will identify the direct and indirect impacts of the Proposed Development on these resources and identify any key sensitivity.

6.7.10 Any potential impacts identified will be measured against WFD ecological and chemical status/potential and objectives. Mitigation measures will be proposed as appropriate with respect to identified impacts on surface and ground water, and the significance of any residual effects will be presented.

6.7.11 In relation to changes in drainage regime, the magnitude of this impact will depend on the proposed extent of hard standing and the implication on run-off rates within the Site. The significance of this impact will be assessed as part of the ES. The proposals will be designed to ensure that sufficient attenuation is provided for storage of surface water run-off, so as to minimise the potential risk of flooding. The volume of attenuation that will be provided on-site will be informed by the results of hydrological modelling that will be undertaken. Given part of the Site is located within Flood Zone 2 and the total area is greater than 1 ha, a standalone Flood Risk Assessment (FRA) will be undertaken and will include appropriate assessment of flooding from all potential sources, and appropriate assessment of flood mitigation and resilience, including a Flood Warning and Evacuation Plan and designated areas of Safe Refuge if appropriate.

6.7.12 In relation to potential impacts on groundwater, the assessment and any mitigation proposed will be undertaken in line with relevant legislation and guidance, including the recently published Groundwater Protection: Principles and Practice (GP3) (Ref 6-15).
6.8 Archaeology and Cultural Heritage

Baseline Conditions

6.8.1 There are no designated assets within the footprint of the Site, though there is a record of previously observed curvilinear soil marks, which were assumed to be of recent origin, within the footprint of the former golf course. Since the establishment of this record the area has been subject to an archaeological work to inform the original golf course construction, which concluded that there was a low potential for archaeological features to be present. The assessment was followed up by an archaeological watching-brief in 2005 by On-Site Archaeology which found that the Site had been repeatedly disturbed during its previous use as a coal and refuse tip in the 19th and early 20th centuries. ‘This usage is not recorded on any of the historic mapping and indicates that the entire area of the golf course has seen extensive truncation’. No archaeological features were present. Following the watching brief the golf course was constructed.

6.8.2 The area within the indicative DCO (Application Site) boundary is therefore considered to have low potential for archaeological features due to levels of modern disturbance.

6.8.3 Archaeological investigations undertaken prior to the construction of the A1(M) revealed a number of prehistoric features approximately 150 m to the north and northwest of the Site: the most significant being an Iron Age chariot burial. A number of SAMs (SAMs) can be found just over 1 km to the south of the Site and a small number of listed buildings associated with Fryston Hall are situated approximately 900 m to the northwest of the Site.

6.8.4 A large portion of the proposed site was assessed as part of the FM1 project and as such agreed mitigation measures for construction works are already in place and would be utilised in the construction of the Proposed Development. Within the portion of the golf course that was not assessed as part of the FM1 project the 1953 OS map depicts a sand and gravel pit within the northeastern corner. This was infilled prior to the 1965 edition OS map and has itself been truncated by the creation of a water feature for the golf course.

Scope of the Assessment

6.8.5 A desk-based archaeological assessment will be undertaken to determine the potential for the site to contain archaeological assets. This will update previously obtained records of all known cultural heritage assets from the West Yorkshire Archaeology Advisory Service Historic Environment Record, and review the archaeological reports detailing the results of watching briefs undertaken during the construction of the golf course and during construction of the FM1 plant. It will consider any potential impacts on the historic environment alongside the benefit of the Proposed Development, in accordance with Section 5.8 of EN-1 (Ref 1-5).

6.8.6 As the Proposed Development will be situated close to FM1, currently under construction, and as it will be a similar type and scale of plant it is considered that the only impacts on the setting of any listed structures will be the same as those previously identified for that development.

6.8.7 The following guidelines and standards for archaeological work will be adhered to during the execution of the EIA:

- Institute for Archaeologists - Code of Conduct (Ref 6-16);
- Institute for Archaeologists, 1994 Standard and Guidance for Historic Environment Desk-based Assessments (Ref 6-17); and
Any potential mitigation strategies required will be considered and recommendations made. The significance of residual impacts remaining will be assessed according to accepted criteria for assessing archaeological and historic sites.

6.9 Land Use and Socio-Economics

Baseline Conditions

6.9.1 The WMDC SSLP (September 2012) (Ref 2-1)) designates EZs. EZ18 Knottingley (including Ferrybridge) refers to land within the Ferrybridge Power Station complex as being intended for employment development associated with power generation and related infrastructure, including generation from renewable energy sources.

6.9.2 The Economic Regeneration Strategy for the Wakefield District (2007–2015) was produced to tackle the economic decline caused by the deterioration of traditional industries. The strategy aims to identify priorities for future action, and deliver an economically viable and sustainable growth in the region. Priorities of the strategy include (i) developing enterprise and innovation, by attracting, retaining and supporting knowledge based business; and (ii) increasing skills, by developing, attracting and retaining skills needed to create competitive business.

6.9.3 The Proposed Development is currently primarily occupied by buildings and services for the existing Ferrybridge ‘C’ Power Station and recreational facilities formerly associated with the existing Ferrybridge ‘C’ Power Station.

Scope of Assessment

6.9.4 For the purposes of the ES, due consideration will be given to the role of the Proposed Development in the generation of direct and indirect employment opportunities at the local and regional level, during the construction and operation phases. A full socio-economic assessment of the scheme will be undertaken to assess the impact of the scheme on the baseline conditions within both the local and wider area. The assessment will also consider the impact of the Proposed Development on land use on the Site and surrounds.

6.9.5 The methodology for assessing land use and socio-economic impacts will follow standard EIA guidance and will involve:

- review of baseline conditions at the Site, locality and in the surrounding area;

- assessment of policy justification for the provision of additional employment space and the contribution of these activities to WMDC’s policy objectives;

- assessment of the likely scale, permanence and significance of impacts associated with:
  - direct and indirect induced employment due to the Proposed Development (during its construction and operational phase);
  - nuisance or health and safety implications that might restrict or affect land use in the immediate surrounds;
  - broader social and community impact of the Proposed Development (e.g. impacts on leisure and recreational activities in the area); and

- comparison with the alternative scenarios, including the baseline.
6.9.6 The social and economic policy context review will consider relevant policy at various levels including local, regional and national (in terms of urban regeneration and neighbourhood renewal).

6.9.7 The socio-economic assessment will be centred around employment, but will also include a wider assessment of the implications of the Proposed Development on the wider local area in terms of population, housing and land-use, economic, employment, skills and occupational profile of the area.

6.9.8 The EIA baseline will be characterised using a range of data sources, including the Office for National Statistics, Nomis and Annual Business Inquiry. The principal economic impact of the Proposed Development will be considered relative to the Travel to Work Area (TTWA) for the Proposed Development, which along with Wakefield District, (which covers the City of Wakefield and the towns of Horbury, Ossett, Castleford, Knottingley, Hemsworth and South Kirkby) includes parts of North Yorkshire, including Selby. The energy and water industries have been one of the primary areas of employment within Wakefield, though there is a reported decline in employment in these sectors over recent years. Despite this decline the energy sector remains an important source of employment for the District.

6.9.9 Whilst land use will be considered within the Socio-economics assessment, the Proposed Development will maintain the existing land use patterns at the Site, and is not anticipated to impact on the land use patterns of surrounding areas.

6.10 Landscape and Visual Impact Assessment (LVIA)

6.10.1 A review of the LVIA undertaken for the FM1 development, currently under construction, was carried out to gain an understanding of landscape baseline and sensitive visual receptors to inform this Scoping Report, supplemented with an initial visit to the Site and surrounding area to understand the potential visibility of the Proposed Development. The assessment for the Proposed Development will consider the potential visual and landscape effects set out in Section 5.9 of EN-1 (Ref 1-5) and the guidance provided in Section 2.5 of EN-3 (Ref 1-6).

6.10.2 The Site lies within National Character Area 30 (Southern Magnesian Limestone) which features a low rolling ridge running north-south which is intersected by river valleys running west-east. Of particular relevance to the Site is the River Aire (approximately 500 m to the north east and east). The Character Area has an agricultural context but is heavily influenced by urban and industrial infrastructure with mines, shale tips, transport routes, power lines and industrial settlements, including the immediate setting of the operational Ferrybridge ‘C’ power station which dominates the local character.

6.10.3 The Site is located within the Limestone Escarpment local Landscape Character Type (Landscape Character Assessment of Wakefield District, Ref 6-19) and is described as being predominantly urban around Castleford and Pontefract although contains several areas of woodland such as Fryston Park, Well Wood and Holywell Wood.

6.10.4 Although the Site is not specifically covered by any landscape related designations the West Yorkshire Green Belt and designated Green Corridors (WMDC) lie immediately to the west of the Site. A Locally Important Landscape Area (Selby District Council) is located within the study area and lies to the north east. Two Registered Parks and Gardens are located within the study area, the closest of which being Byram Park to the east although the status of this designation is to be determined.

6.10.5 A number of residential areas lie in close proximity to the Site including the edge of Castleford to the west and Brotherton to the east, as well as a number of farm properties to the West and North, and residential properties off Fryston Lane to the West and Stranglands Lane to the South.
6.10.6 A number of Public Rights of Way and outdoor recreation areas exist within the surrounding area including Pontefract Park and Racecourse, New Fryston and Fairburn Ings, although it is anticipated that any views that may be available will be restricted due to intervening structures and the distance of the view. Other potential key sensitive receptors may include road users and users of facilities and commercial buildings.

**Scope of Assessment**

6.10.7 The LVIA will examine the potential effects of the Proposed Development on the landscape and visual amenity of the Site and surrounding area.

6.10.8 Potential landscape impacts may arise from the increased massing of buildings and the introduction of additional industrial infrastructure. The Proposed Development will include a variety of industrial buildings and infrastructure, but notable amongst these includes an emissions stack up to 120 m in height, a boiler hall up to 58 m high and a fuel bunker building up to 48 m high. Despite the presence of substantial industrial infrastructure on the Site currently, it is anticipated that there may be potential for significant impacts to the landscape character at a local/site level.

6.10.9 Potential visual impacts may arise from the introduction of taller elements of the Proposed Development and the influence of the extension of built massing in the vicinity of the existing Ferrybridge ‘C’ Power Station. From locations to the south of the Site, existing infrastructure at the Ferrybridge Power Station complex will act to screen the Proposed Development and from the north west the Proposed Development would be seen against the backdrop of the existing infrastructure. From locations further afield the effects of intervening vegetation and built form together with the Proposed Development occupying a smaller proportion of the view will act to reduce the impact.

6.10.10 There is the potential for landscape and visual impacts to be experienced where the view is in close proximity to the Site and where the Proposed Development will be seen as an extension to the existing infrastructure. This is most likely to occur along the western edge of Brotherton which lies approximately 1 km to the east of the Site and the south eastern edge of Castleford to the west.

6.10.11 Given the presence of sensitive receptors in close proximity to the Ferrybridge site it is proposed that a full LVIA be undertaken to fully assess whether significant effects on visual amenity will be incurred and whether there will be an adverse impact on the surrounding landscape character. Key landscape and visual receptors within the study area will be identified through a review of national and local landscape character assessments and the analysis of Ordnance Survey mapping. Current, relevant landscape policies would also be considered in relation to the Site and local surrounding area. Particularly important receptors such as designated landscapes, residential areas and recreational routes will be identified as part of the desktop stage.

6.10.13 A computer generated Zone of Theoretical Visibility (ZTV) analysis will be carried out to gain a fuller understanding of the extent of visibility based on the tallest feature of the Proposed Development. This will be used in conjunction with the desktop review and the initial site visit to identify a number of viewpoints which aim to be representative of potential views experienced from sensitive receptors (as limited by public accessibility). WMDC, North Yorkshire County Council, Selby District Council, Leeds City Council and NE will be consulted for agreement on the viewpoints to be assessed and amended accordingly as a result of consultation. A site visit would be carried out to verify these receptors and to record the potential visibility or lack of views to the Proposed Development.

6.10.14 The LVIA would be based on the following best practice guidance:
Landscape Character Assessment; Guidance for England and Scotland (2002) The Countryside Agency and Scottish Natural Heritage;


Landscape Institute Advice Note 01/11 – Photography and photomontage in landscape and visual impact assessment.

6.10.15 It is anticipated that the study area will extend to approximately 5 km from the Site, as it is considered that beyond this distance the Proposed Development would occupy such a minor part of the view that this results in minimal impacts on potential receptors.

6.10.16 The assessment will identify temporary and permanent effects of the Proposed Development during construction and operational phases and the assessment will cumulatively consider the FM1 power station currently under construction. This is anticipated to be complete when construction of the Proposed Development commences. The significance on landscape character and visual amenity will be assessed by considering the magnitude of impact together with receptor sensitivity.

6.10.17 The assessment will consider operational impacts such as potential plume visibility (arising from the stack) as well as lighting and night-time views; however these will be considered within the context of the Proposed Development as a whole and no specific technical assessment will be undertaken as part of the LVIA chapter.

6.10.18 The assessment will also consider feasible outline mitigation measures (as required) to reduce any potentially significant effects and these would be included within a final assessment scenario of residual landscape and visual effects.

6.10.19 Photomontages / wireframes will be produced to illustrate the impact of the Proposed Development from the most sensitive identified viewpoints as agreed with WMDC, North Yorkshire County Council, Selby District Council, Leeds City Council and NE.

6.11 Sustainability

6.11.1 National and local policy guidance promotes sustainability principles, particularly with regard to the use of low carbon electricity generation, application of the waste hierarchy, reuse of land and buildings, air quality and land contamination issues, energy conservation, materials and water usage. The Local Development Framework (LDF) contains policies that promote sustainability principles, particularly with regard to the reuse of land and buildings, energy conservation, materials and water usage.

6.11.2 The ES will incorporate an assessment of the design against established sustainability criteria to take into account the following:

- carbon assessment of the Proposed Development including carbon footprint of the combustion and transport of fuels;
- WRATE analysis of greenhouse gas emissions from the Proposed Development compared to disposal of waste to landfill and disposal of waste by other means including gasification;
- land, materials and resource use;
- materials specification and usage (life cycle) in relation to carbon dioxide (CO₂) emissions and ozone depletion;
• energy consumption and energy efficiency;
• provision for renewable energy;
• waste minimisation and recycling; and
• performance of the Proposed Development against established sustainability criteria such as BREEAM.

6.12 Waste and Resources

6.12.1 The proposed site of the plant is currently not developed and therefore demolition works are likely to be minimal in the preparation for the Site for development. However, during the construction phase of the power station it is likely there will be surplus materials such as spoil and made ground. During the operational phase the main sources of waste from the Proposed Development will be bottom ash and fly ash generated through the process and removed for disposal off site, along with small volumes of general waste likely to include non-hazardous and hazardous materials including air filters, scrap metal, insulations materials, used oils and chemicals, general office waste and miscellaneous waste.

6.12.2 The waste and resources management chapter will consider the significance of forecast solid waste arisings, both from the construction and operation of the proposed Multifuel Power Station (in particular management of ash generated by the process) in line with Section 5.14 of EN-1 (Ref 1-5) and Section 2.5 of EN-3 (Ref 1-6). The potential significance of forecast environmental waste arisings, the regional capacity to treat or dispose of residual waste and the methods by which the waste is or will be managed, will be considered as part of this assessment. It should be noted for clarity that the waste and resources impact assessment will consider only waste generated by the Proposed Development and removed from site as waste, not consideration of the fuel sources derived from waste.

6.12.3 The study will consider waste generated and resources used within the Proposed Development area. However as some waste generated on-site (e.g. ash) will be taken off-site for management/ disposal, the spatial scope of the assessment will extend to the wider Yorkshire region.

Scope of Assessment

6.12.4 The waste management assessment will involve a desk-based study including the following elements:

• identification of relevant legislation, sources of information and local strategies and plans – including any relevant supplementary planning guidance; and

• acquisition, collation and analysis of relevant available data including contact with local waste management service providers (where necessary) to identify local waste management infrastructure.

6.12.5 Construction waste will be based on engineering calculations, industry benchmark figures and on experience gained from constructing similar facilities. Operational waste will be estimated, based on actual waste figures collected by the Applicant from current similar facilities and typical waste figures applicable for power station facilities.

6.12.6 The assessment will also pay close attention to sector-specific regulatory requirements and best practice applicable to the Proposed Development.

6.12.7 The assessment of impacts will include:
• consideration of any relevant consultee responses/ requirements;
• an estimation of likely construction and operational waste arisings;
• an assessment of potential significance of projected construction and operational waste arisings in the context of baseline conditions and local infrastructure capacity;
• identification and consideration of any best practice measures (to minimise or eliminate adverse effects caused by waste) that will be adopted as mitigation;
• an assessment of the significance of projected waste arisings following mitigation; and
• an assessment of cumulative impacts with other local developments.

6.13 Combined Heat and Power

6.13.1 In order to comply with the DCO requirements as set out in Section 4.6 of EN-1 (Ref 1-5) and 2.5.26 of EN-3 (Ref 1-6), the Applicant will demonstrate that it has explored the potential for the plant to operate in Combined Heat and Power (CHP) mode, exporting waste heat to off-site users. It is the Applicant’s ambition that the CHP potential for the Proposed Development (as with FM1) is maximised. In order to maximise the CHP potential the BAT will be determined by applying three BAT tests as outlined in the CHP Ready Guidance for Combustion and Energy from Waste Power Plants (Environment Agency, V1.0 February 2013) (Ref 6-20).

6.13.2 The facility will be configured so that it will be possible to export heat to nearby customers, if there is sufficient demand. Depending upon the requirements it should be possible to export heat from the facility in the form of steam or hot water. A full CHP investigation has already been undertaken as part of the development of FM1, and will be reviewed and updated as part of the DCO Application for FM2. This will involve identifying and contacting potential heat or steam users in the area, encompassing commercial, industrial and community users. The FM1 study indicated that potential users are:

• Schools within Castleford;
• Carlton Lane Shopping Centre;
• Xscape sport and leisure centre;
• Siniat (previously LaFrage Plasterboard) a gypsum production plant adjacent to Ferrybridge ‘C’ Power station; and
• Space heating and domestic hot water for offices and amenities.

6.13.3 The existing study identified that none of these users are currently in a position to be able to readily take advantage of available waste heat or steam from FM1, but as part of the investigation for the Proposed Development this will be re-appraised.
7 ENVIRONMENTAL TOPICS TO BE SCOPED OUT OF EIA

7.1 Introduction

7.1.1 The aim of the scoping process is to focus the EIA on those environmental aspects that may be significantly affected by the Proposed Development. In so doing, the significance of impacts associated with each environmental aspect becomes more clearly defined, resulting in certain aspects being considered ‘non-significant’. The following section provides a summary of those issues, which have been considered as part of the scoping process, but which are not considered key to the EIA and will therefore not be considered in detail in the ES.

7.2 Aviation

7.2.1 The proposed new stacks and the Site’s location do not warrant the inclusion of an assessment of the potential impacts of the Proposed Development on the operating procedures at the nearest airfield. This is Church Fenton airfield, located 15 km north east of the Site, which at this time is non-operational. The tallest structure associated with the Proposed Development (the stack) will stand up to a maximum of 120 m (394 ft) in height and be of a similar height to the existing cooling towers of the Ferrybridge ‘C’ power station, which stand 114 m (374 ft) high, but lower than the existing stack, which is approximately 198 m (649 feet) high (note all heights quoted as above ground level). It is therefore intended that Aviation impact is scoped out of the EIA.

7.3 Electronic Interference (TV Reception)

7.3.1 Due to its high frequency and reliance on static aerials, television and radio reception is the most vulnerable of electronic signals to interference from tall structures.

7.3.2 A desktop study was undertaken to locate the position of the existing transmitters serving the local area in relation to the Site as part of the FM1 scoping study. The assessment has been reviewed and it is concluded that the Proposed Development will not have a significant impact upon electrical interference given its location adjacent to existing structures of equivalent heights and distance from existing transmitters, and as such it is recommended that electrical interference is scoped out of the EIA.

7.4 Accidental Events/Health and Safety

7.4.1 The description of the Proposed Development in the ES will be written to provide sufficient information to allow the key environmental issues identified to be adequately assessed. Accidental events such as the potential for fuel spillages and abnormal air emissions, and how the risk of these events will be minimised, will be discussed in the relevant chapters of the ES, with reference to the Applicant's overarching principles of emergency management. It is, however, anticipated that the majority of emergency response plans and contingency measures will be dealt with in the Environmental Permit, which is regulated by the EA, and with respect to Health and Safety, through the relevant industry controls. With respect to air quality, the potential for impacts of air emissions on human health will be considered as part of the EIA, as set out in Section 6.2.
8 ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

8.1 EIA Methodology and Reporting

8.1.1 The EIA will be carried out in accordance with the requirements for the contents of an ES as defined by Schedule 4, Part 1 of the EIA Regulations. For the EIA to be an effective decision-making tool, the ES needs to focus on the most potentially significant environmental issues. These issues will be identified through consideration of the planning context, preliminary data review and consultation with statutory and non-statutory consultees.

8.1.2 The ES will set out the process followed during the EIA including the methods used for the collection of data and for the identification and assessment of impacts. Any assumptions made will be clearly identified.

8.1.3 The EIA process is designed to be capable of, and sensitive to, changes that occur as a result of changes to the design, including any mitigation measures that are incorporated during the EIA. This will be particularly important for this development as the design and layout of the power station is still being refined, and minor changes are likely to be made following submission of this EIA Scoping Report. In this way the EIA, consultation and design processes are interlinked and iterative in nature.

8.1.4 The EIA process will commence in Q3 of 2013, and will be informed by the Scoping Opinion and information received during informal consultation. The draft EIA will be completed to a stage where it is possible to provide initial predictions of impact (known as Preliminary Environmental Information in the DCO process) for stakeholder and public review during the formal consultation process planned for Q4 of 2013. Feedback received during the formal consultation stage will be considered as the application and EIA are finalised for submission in Q2/Q3 2014.

8.1.5 Impacts will be considered on the basis of their magnitude, duration and reversibility. Cumulative and combined effects will also be considered where appropriate. Significance will be evaluated on the basis of the scale of the impact and the importance or sensitivity of the receptors, in accordance with standard assessment methodologies (major, moderate, minor and negligible).

8.1.6 The ES will describe the assessment of the direct effects of the Proposed Development in addition to the potential effects that are:

- indirect;
- Cumulative;
- Short, medium and long term;
- Permanent or temporary;
- National, Regional and Local in scale; and
- Beneficial and/or adverse in nature.

8.1.7 The mitigation measures envisaged in order to avoid, reduce or remedy significant adverse effects will be described where applicable. The concluding chapters will provide a summary of the cumulative and residual significant effects. The significance of residual effects will be defined in accordance with a standard set of significance criteria. The methodology will define the baseline against which the environmental impacts will be assessed.

8.1.8 The assessment will include the following scenarios:
the Site as existing (the baseline);

where appropriate, a revised baseline accounting for the expected impacts from the operational FM1 plant where this is not reflected in the current baseline (the revised baseline of existing plus FM1);

the Proposed Development (including construction, operational and decommissioning phases); and

cumulative impacts of nearby proposed schemes will be assessed in relation to the Proposed Development.

8.1.9 Where enough information is known about the construction and operational phases to identify distinct phases within each (e.g. operational will consist of commissioning phase and full operation), these will be highlighted within the ES and assessed as separate phases where relevant.

8.1.10 Schemes for consideration within the cumulative assessment comprise those schemes proposed by way of the submission of a planning application, consented or with a resolution to grant consent, or under construction, within a 10 km radius of the Site and either greater than 20 MW or over 10,000 square metres (m²) gross external floor area, that are considered significant enough to lead to potential cumulative effects (i.e. for which an EIA is required). As set out in Section 6 above, study limits for the EIA of the Proposed Development will be defined through the EIA process (e.g. air quality modelling and the definition of the ZTV). Once determined the final selection of schemes for inclusion in the cumulative assessment will be confirmed on the basis of potential for cumulative effects.

8.2 Definition of Baseline

8.2.1 The baseline will be defined for each assessment area. Given the proximity of the FM1 development to the Site and the similarities between FM1 and the Proposed Development, in order to identify and fully assess any likely significant effects it will be necessary to account for the proposed FM1 development within the assessment baseline. The approach for definition of baseline will therefore be to define the pre-FM1 baseline (through use of data available prior to commencement of FM1 construction or accounting for construction impacts for surveys undertaken during FM1 construction). The impact assessment for each subject area will then consider the ‘baseline plus operational FM1’ scenario, which will become the baseline for the assessment of the Proposed Development, and then assess ‘baseline plus operational FM1 plus the Proposed Development’.

8.2.2 It should be noted that the consent granted for FM1 was for the development of a generating plant of up to 108 MW gross output. Details of the scheme as built, approved by the local planning authority in accordance with the Section 36 Consent, are for a power station of up to 90 MW gross output (circa 70 MW net output). Assessments carried out as part of the EIA for FM1 will therefore be reviewed and updated where appropriate to account for the smaller development approved and under construction.

8.2.3 As the FM1 development is currently under construction the design is approaching completion. Information regarding the FM1 development is therefore becoming more robust as the EIA for the Proposed Development progresses. Information regarding the FM1 development will remain live as long as possible through the EIA process in order that the final EIA incorporates the most robust information to inform the baseline. This information, along with actual information from the construction stage of FM1, will also inform the design basis for FM2, allowing more robust values and predictions for the Proposed Development to be utilised in the various assessments.
8.3 Design Evolution and Alternatives Assessment

8.3.1 The EIA process provides an opportunity to describe the design evolution of the proposal as well as consideration of any alternative development options, specifically with respect to the environmental impacts before a final decision is taken on the design. In accordance with EIA Regulations and statutory guidance, the ES will describe alternatives which were considered by the Applicant team and architects, including:

- ‘Do Nothing Scenario’ – the consequences of no development taking place;
- ‘Alternative sites’ – examination of an alternative location for the Proposed Development and the rationale behind the selection of the preferred site; and
- ‘Alternative designs’ – the ES will summarise the evolution of the design proposals, the modifications that have taken place to date and the environmental considerations which have led to those modifications. A summary of the main alternatives considered, such as alternative locations and layouts within the Site, fuels, boiler technology and emissions abatement, will be presented together with a justification for the final design. The ES will also summarise comments received through consultation and where design aspects for the Proposed Development have been influenced by the consultation process.

8.4 The Proposed Development

8.4.1 The ES will include a description of the Proposed Development to enable a robust assessment of the likely significant impacts of the Proposed Development. This will include the following:

- Scope of development;
- Site layout and footprint;
- Plant design and emission levels;
- Floor and elevation plans;
- Access/ egress points and road layout;
- Indicative details of façade and finishing;
- Utilities (i.e. gas, electricity, telecommunications, foul and surface water) requirements and provisions;
- Servicing and maintenance;
- Proposals for landscaping; and
- Sustainable design features.

8.4.2 Where any particular design consideration has not yet been finalised, for example to allow commercial flexibility for engaging with different construction contractors, this will be explained and justified in the ES and the boundaries of the design parameter will be provided and assessed accordingly.
8.5 Construction Programme and Management

8.5.1 Construction works will comprise enabling works, service diversion, site preparation and erection of the proposed Multifuel Power Station and associated structures. The ES will provide details of the proposed programme together with specific construction activities and their anticipated duration. The ES will describe the likely content of the Construction Method Statement (CMS), which will detail the specific mitigation measures to be followed to reduce nuisance impacts from:

- construction traffic;
- noise and vibration;
- utilities diversion;
- dust generation;
- soil removal; and
- waste generation.
9 PROPOSED STRUCTURE OF THE ENVIRONMENTAL STATEMENT

9.1 Introduction

9.1.1 The ES will comprise the following set of documents:

9.1.2 *Non-Technical Summary (NTS)*: this document will provide a summary of the key issues and findings of the EIA. The NTS will be presented in non-technical language to assist the reader to understand the Site context, the Proposed Development, the design alternatives, the environmental issues arising, and proposed mitigation measures and any potential residual significant effects.

9.1.3 *Volume I: Environmental Statement*. This will contain the full text of the EIA with the proposed chapter headings as follows:

1. Introduction
2. Assessment Methodology and Significance Criteria
3. Description of the Site
4. The Proposed Development
5. Construction Programme and Management
6. Alternatives and Design Evolution
7. Planning Policy Context
8. Air Quality
9. Archaeology and Cultural Heritage
10. Ecology
11. Ground Conditions
12. Water Resources and Flood Risk
13. Transportation and Access
14. Noise and Vibration
15. Socio-Economics
16. Landscape and Visual
17. Sustainability
18. Cumulative Impact Assessment
19. Residual Impact Assessment, Summary of Effects and Conclusions
9.1.4 *Volume II: Technical Appendices.* This will provide supplementary details of the environmental studies conducted during the EIA including relevant data tables, figures and photographs. This is likely to include but not be limited to the CHP Assessment, FRA, TA and Travel Plan.

9.2 **Structure of Technical Chapters**

9.2.1 Chapters 8-17 will be structured based on the following sub-headings:

*Introduction*

9.2.2 This section describes the format of the assessment presented within the chapter and identifies the author.

*Legislation and Planning Policy Context*

9.2.3 This section of the technical chapters provides an overview of the relevant legislation, planning policy and technical guidance application to the assessment.

*Assessment Methodology and Significance Criteria*

9.2.4 The methods used in undertaking the technical study are outlined in this section with references to published standards (e.g. British Standards, Building Research Establishment), guidelines (e.g. Design Manual for Roads and Bridges and Institute of Environmental Management & Assessment guidelines) and relevant significance criteria.

9.2.5 The significance of residual impacts will be evaluated with reference to definitive standards, accepted criteria and legislation where available. Where it is not been possible to quantify impacts, qualitative assessments will be carried out, based on available knowledge and professional judgment. Where uncertainty exists, this will be noted in the relevant technical assessment chapter.

9.2.6 Specific criteria for each technical assessment will be developed, giving due regard to the following:

- extent and magnitude of the impact;
- impact duration (whether short, medium or long term);
- impact nature (whether direct or indirect, reversible or irreversible);
- whether the impact occurs in isolation, is cumulative or interactive;
- performance against environmental quality standards;
- sensitivity of the receptor; and
- compatibility with environmental policies and standards.

9.2.7 For issues where definitive quality standards do not exist, significance has been based on the:

- local, district, regional or national scale or value of the resource affected;
- number of receptors affected;
sensitivity of these receptors; and
duration of the impact.

9.2.8 In order to provide a consistent approach to expressing the outcomes of the various studies undertaken as part of the EIA, and thereby enable comparison between impacts upon different environmental components, the following terminology will be used in the ES to define residual impacts:

**Adverse** Detrimental or negative impacts to an environmental resource or receptor; and

**Beneficial** Advantageous or positive impact to an environmental resource or receptor.

9.2.9 Where adverse or beneficial impacts have been identified, these have been assessed against the following scale:

**Negligible** Imperceptible impacts to an environmental resource or receptor;

**Minor** Slight, very short or highly localised impact of no significant consequence;

**Moderate** More than a slight, very short or localised impact (by extent, duration or magnitude) which may be considered significant; and

**Major** Considerable impact (by extent, duration or magnitude) of more than local significance or in breach of recognised acceptability, legislation, policy or standards.

9.2.10 For the purpose of the EIA moderate and major impacts will be deemed ‘significant’.

9.2.11 Each of the technical chapters will provide the criteria, including sources and justifications, for quantifying the different levels of residual impact. Where possible, this will be based upon quantitative and accepted criteria (for example, the NAQS objectives or noise assessment guidelines), together with the use of value judgement and expert interpretation to establish to what extent an impact is environmentally significant.

**Baseline Conditions**

9.2.12 In order to assess the potential impacts of the Proposed Development, it is necessary to determine the environmental conditions that currently exist on site and in the surrounding area. These are known as ‘baseline conditions’. Baseline conditions will be determined using the results of onsite surveys and investigations or desk based data searches, or a combination of these, as appropriate, and as set out in the technical sections above. Construction impacts and opening/early operation will be considered against the current baseline (2013).

9.2.13 In order to compare future operations against the baseline that is likely to occur at the time of full operation (after opening, when mitigation measures such as landscape planting are fully established), for most technical disciplines it will be necessary to establish future baseline conditions taking account of any planned or likely changes, in particular the operation of the adjacent FM1 Multifuel Power Station but also to account for potential improvements in baseline
conditions as a result of implementation of legislation such as WFD, or as a result of planned works such as transport infrastructure improvements.

**Potential Impacts and Mitigation Measures**

9.2.14 This section identifies the potential impacts resulting from the Proposed Development. This section also describes the mitigation measures that the Applicant will implement to reduce adverse impacts and enhance beneficial impacts and the mitigation measures that relate to construction and operational phases.

**Residual Impacts and Conclusions**

9.2.15 Impacts of the Proposed Development remaining following the implementation of available mitigation measures are known as ‘residual impacts’. These will be discussed for each of the potential impacts, and their significance level identified.

**Cumulative Impact Assessment**

9.2.16 In accordance with the EIA Regulations, consideration will also be given to the potential for ‘cumulative impacts’ to arise. These are impacts that result from incremental changes caused by other reasonably foreseeable developments.

9.2.17 For the cumulative impact assessment, two types of impact will be considered:

- the combined *impacts* of several development schemes which may, on an individual basis be insignificant but, cumulatively, have a significant impact; and

- the combined *effect* of individual impacts, for example noise or pollutants on a single receptor.

9.2.18 Cumulative impacts are those that accrue over time and space from a number of development activities. The impact of the Proposed Development will be considered in conjunction with the potential impacts from other projects or activities which are both reasonably foreseeable in terms of delivery (e.g. have planning consent) and are located within a realistic geographical scope where environmental impacts could act together to create a more significant overall effect.

9.2.19 A review of the Planning Register has identified a number of developments that are proposed within the region. The list of developments considered for inclusion within the cumulative impact assessment is:

- Lyndale Caravan Park, Brotherton - erection of additional 12 dwellings (1.2 km from the Site);

- Knottingley Power Project – a proposed 1500 MW Combined Cycle Gas Turbine (CCGT) power station, Knottingley (3 km from the Proposed Development);

- Castleford R L FC –erection of a foodstore, petrol filling station and drive thru-restaurant on Wheldon Road, Castleford (3.6 km from the Proposed Development);

- Factory and Distribution Buildings –Former Pioneer Electronics Technology, Whitwood Common Lane, Castleford (4.3 km from the Proposed Development);

- Hillam Gardens - works to increase retail area at Hillam Gardens, Leeds (5.9 km from Proposed Development);
• Land to the north of Pontefract Road – up to 450 residential dwellings (6.76 km from the Proposed Development);

• Former Crystal Springs – Class A1 retail foodstore (7 km from the Proposed Development);

• Land at California Drive – proposed biomethane refuelling station at Castleford (7.24 km from the Proposed Development);

• Southmoor Energy Centre – a proposed Energy from Waste facility with CHP located at Kellingley Colliery (7.56 km from the Proposed Development);

• Prince of Wales Colliery spoil tip – works to the existing spoil heap on Park Road, Pontefract (7.77 km from Proposed Development);

• Tunstall Telecom – residential development at Selby Road, Whitley, Goole (9.22 km from Proposed Development);

• Prowind Wind Farm, Birkin Knottingley – 14 turbine wind farm located at Birkin, Knottingley;

• Pollington Airfield, Heck And Pollington Lane Heck - Proposed process plant for grinding wood fuel at Goole (13 km from Proposed Development); and

• Bowmans Mill - Erection of warehouse, bagging plant, processing tower, tanker loading bay, eight silos and associated works at Selby Road, Whitley, Goole (26 km from Proposed Development).

Following an initial review of the list of schemes above, the following proposed developments are considered to be of such a nature and proximity to the Site to have the potential to generate cumulative impacts when considered in context with the Proposed Development. These will be subject to further review regarding the nature of predicted impacts and considered for inclusion in the cumulative impacts assessment. This list may not be exhaustive, and will be finalised through the EIA process in discussion with Local Authorities and statutory consultees. The location of the following developments is shown in Figure 9.1.

• Knottingley Power Project – a proposed 1500 MW Combined Cycle Gas Turbine (CCGT) power station and associated infrastructure, located at former Oxiris Chemical Works, Knottingley (3 km from the Proposed Development); Currently at pre-application stage in the DCO process;

• Prowind Wind Farm, Birkin Knottingley – a proposed 14 turbine wind farm located at Birkin, Knottingley; Awaiting planning decision;

• Factory and Distribution Buildings – proposals for the development of a proposed factory and distribution buildings with associated ancillary structures, parking and landscaping, located at Former Pioneer Electronics Technology, Whitwood Common Lane, Castleford (4.3 km from the Proposed Development); Screening Opinion requested;

• Lyndale Caravan Park, Brotherton - erection of additional 12 dwellings (1.2 km from the Site); approval received for reserved matters following outline approval. Unlikely to give rise to cumulative impacts but may be taken into consideration if Lyndale Caravan Park identified as a receptor; and

• Southmoor Energy Centre – a proposed Energy from Waste facility with CHP located at Kellingley Colliery (7.56 km from the Proposed Development). The facility would have the capacity to produce 26 MW of low carbon electricity and heat that could be supplied to the
local colliery. A planning application has been submitted and a decision is anticipated in Autumn 2013.
Proposed Developments for consideration in Cumulative Impact Assessment

- Factory and Distribution Buildings
- Lyndale Caravan Park
- Knottingley Power Plant
- Prowind Wind Farm, Birkin Knottingley
- Southmoor Energy Centre

Key:
- Indicative DCO (Application Site) Boundary
- 5km from Site Boundary

This document has been prepared in accordance with the scope of URS’ appointment with its client and is subject to the terms of that appointment. URS accepts no liability for any use of this document other than by its client and only for the purpose for which it was prepared and provided. Only written dimensions shall be used.

© URS Infrastructure & Environment UK Limited
CONCLUSIONS

10.1.1 This Scoping Report represents notification under Regulation 6(1)(b) of the EIA Regulations, that the Applicant will undertake an EIA in respect of the Proposed Development and produce an ES to report the findings of the EIA.

10.1.2 This Scoping Report also represents a formal application to PINS under Regulation 8 of the EIA Regulations for a ‘Scoping Opinion’ as to the information to be provided within the ES that will form part of the application for Development Consent. This report has identified the environmental effects that are considered to have the potential to be significant and proposes the approach to be used in assessments that will be undertaken for the EIA to characterise and understand the significance of these effects. PINS and other consultees are invited to consider the contents of this report and comment accordingly within the statutory 42 day time period.
11 REFERENCES

Ref 1-1 Planning Act 2008
Ref 1-2 Infrastructure Planning (Environmental Impact Assessment) Regulations 2009
Ref 1-3 Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Ref 1-4 Advice Note Seven: Environmental Impact Assessment Screening and Scoping, August 2010; Infrastructure Planning Commission
Ref 1-5 Overarching Energy National Policy Statement EN-1
Ref 1-6 Renewable Energy Infrastructure National Policy Statement EN-3
Ref 1-7 Electricity Networks Infrastructure National Policy Statement EN-5
Ref 1-8 Planning our electric future: a white paper for secure, affordable and low-carbon energy (Energy White Paper), 2011
Ref 1-9 Energy Act 2008
Ref 1-10 Directive 2008/98/EC on Waste
Ref 1-11 Waste Strategy for England 2007; Department for Environment Food and Rural Affairs
Ref 1-12 UK Renewable Energy Strategy 2009; Secretary of State for Energy and Climate Change
Ref 1-13 European Large Combustion Plant Directive 2001/80/EC
Ref 1-14 Environmental Impact Assessment for a proposed Multifuel Power Station; 2009; URS.
Ref 1-15 Environmental Statement – 2011 Addendum for a proposed Multifuel Power Station; 2011; URS
Ref 2-1 Wakefield Metropolitan District Council Site Specific Policies Local Plan; September 2012
Ref 2-2 Environmental Impact Assessment of traffic, noise and odour for proposed biomass handling plant; 2005; URS
Ref 2-3 Geo-environmental Desk Study Report, Ferrybridge Multifuel Power Station, January 2011; Arup
Ref 2-4 Geotechnical Interpretative Report, Ferrybridge Multifuel Power Station, April 2011; Arup
Ref 2-5 Factual Reports on Ground Investigation, Ferrybridge Multifuel Power Station; February to May 2011; Arup
Ref 3-1 Directive 2010/75/EU on Industrial Emissions (integrated pollution prevention and control)
Ref 3-2 Guidance on associated development: Applications to the Infrastructure Planning Commission (Communities and Local Government, September 2009)
Ref 5-1 National Planning Policy Framework, 2012; Communities and Local Government
Ref 6-1 Environmental Permitting Regulations Horizontal Guidance Note H1: Environmental Risk Assessment, Annex (f) Air Emissions; December 2011; Environment Agency
Ref 6-2  Air dispersion modelling report requirements (for detailed air dispersion modelling); Environment Agency

Ref 6-3  Local Air Quality Management Technical Guidance LAQM.TG(09); 2009; DEFRA

Ref 6-4  Development Control: Planning for Air Quality, 2010 update; Environmental Protection UK

Ref 6-5  Design Manual for Road Building, 2013 update; Highways Agency


Ref 6-8  Environmental Permitting Regulations Horizontal Guidance Note H3: Part 2 Noise assessment and control; 2011; Environment Agency

Ref 6-9  Calculation of Railway Noise, The Department of Transport, HMSO, 1995

Ref 6-10  Natural Environment and Rural Communities (NERC) Act 2006

Ref 6-11  Ecological Impact Assessment Guidance; 2006; Institute of Ecology and Environmental Management (IEEM)


Ref 6-13  Humber River Basin Management Plan; 2009; Environment Agency


Ref 6-15  Groundwater Protection: Principles and Practice (GP3) (November 2012)

Ref 6-16  Code of Conduct; 2012 version; Institute for Archaeologists

Ref 6-17  Standard and Guidance for Historic Environment Desk-based Assessments; 2012 version; Institute for Archaeologists

Ref 6-18  Management of Research Projects in the Historical Environment (MoRPHE); 2006; English Heritage

Ref 6-19  Landscape Character Assessment of Wakefield District; 2004

Ref 6-20  CHP Ready Guidance for Combustion and Energy from Waste Power Plants; Environment Agency, V1.0; February 2013
### GLOSSARY

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>Air Cooled Condenser</td>
<td>IEEM</td>
<td>Institute for Ecology and Environmental Management</td>
</tr>
<tr>
<td>ADMS</td>
<td>Atmospheric Dispersion Modelling System</td>
<td>LCPD</td>
<td>Large Combustion Plant Directive</td>
</tr>
<tr>
<td>AQMA</td>
<td>Air Quality Management Area</td>
<td>LDF</td>
<td>Local Development Framework</td>
</tr>
<tr>
<td>BAP</td>
<td>Biodiversity Action Plan</td>
<td>LVIA</td>
<td>Landscape and Visual Impact Assessment</td>
</tr>
<tr>
<td>BAT</td>
<td>Best Available Technology</td>
<td>LWS</td>
<td>Local Wildlife Site</td>
</tr>
<tr>
<td>C&amp;I</td>
<td>Commercial and Industrial</td>
<td>MAGIC</td>
<td>Multi-Agency Geographic Information for the Countryside</td>
</tr>
<tr>
<td>CHP</td>
<td>Combined Heat and Power</td>
<td>MEL</td>
<td>Multifuel Energy Limited (‘the Applicant’)</td>
</tr>
<tr>
<td>CMS</td>
<td>Construction Method Statement</td>
<td>MSW</td>
<td>Municipal solid waste</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
<td>MW</td>
<td>Megawatts</td>
</tr>
<tr>
<td>CSM</td>
<td>Conceptual Site Model</td>
<td>NAQS</td>
<td>National Air Quality Standard</td>
</tr>
<tr>
<td>DEFRA</td>
<td>Department for the Environment, Food and Rural Affairs</td>
<td>NBN</td>
<td>National Biodiversity Network</td>
</tr>
<tr>
<td>DfT</td>
<td>Department for Transport</td>
<td>NE</td>
<td>Natural England</td>
</tr>
<tr>
<td>DPD</td>
<td>Development Plan Document</td>
<td>NOₓ</td>
<td>Nitrogen Oxides</td>
</tr>
<tr>
<td>DMRB</td>
<td>Design Manual for Roads and Bridges</td>
<td>NPPF</td>
<td>National Planning Policy Framework</td>
</tr>
<tr>
<td>EA</td>
<td>Environment Agency</td>
<td>NPS</td>
<td>National Policy Statement</td>
</tr>
<tr>
<td>EH</td>
<td>English Heritage</td>
<td>NSIP</td>
<td>Nationally Significant Infrastructure Project</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
<td>NTS</td>
<td>Non-Technical Summary</td>
</tr>
<tr>
<td>ELV</td>
<td>Emission Limit Value</td>
<td>PINS</td>
<td>Planning Inspectorate</td>
</tr>
<tr>
<td>EN-X</td>
<td>National Policy Statements relating to Energy Infrastructure.</td>
<td>SAC</td>
<td>Special Area of Conservation</td>
</tr>
<tr>
<td>ES</td>
<td>Environmental Statement</td>
<td>SAM</td>
<td>Scheduled Ancient Monument</td>
</tr>
<tr>
<td>EZ</td>
<td>Employment Zone</td>
<td>SO₂</td>
<td>Sulphur Dioxide</td>
</tr>
<tr>
<td>Ferrybridge Power Station complex</td>
<td>The site of Ferrybridge Power Station, incorporating the existing Ferrybridge ‘C’ Power Station, FM1 and the Proposed Development Site</td>
<td>SOCC</td>
<td>Statement of Community Consultation</td>
</tr>
<tr>
<td>FGD</td>
<td>Flue Gas Desulphurisation</td>
<td>SSLP</td>
<td>Site Specific Policies Local Plan</td>
</tr>
<tr>
<td>FM1</td>
<td>Ferrybridge Multifuel Power Station 1 (under construction)</td>
<td>SSSI</td>
<td>Site of Special Scientific Interest</td>
</tr>
<tr>
<td>FM2</td>
<td>Ferrybridge Multifuel Power Station 2</td>
<td>TA</td>
<td>Transport Assessment</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------</td>
<td>---------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>FRA</td>
<td>Flood Risk Assessment</td>
<td>Tpa</td>
<td>Tonnes per annum</td>
</tr>
<tr>
<td>GP3</td>
<td>Groundwater Protection: Principles</td>
<td>TRO</td>
<td>Traffic Regulation Order</td>
</tr>
<tr>
<td></td>
<td>and Practice (EA guidance document)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GW</td>
<td>Gigawatts</td>
<td>WDF</td>
<td>Waste Derived Fuel</td>
</tr>
<tr>
<td>HGV</td>
<td>Heavy Goods Vehicle</td>
<td>WFD</td>
<td>Water Framework Directive</td>
</tr>
<tr>
<td>HHRA</td>
<td>Human Health Risk Assessment</td>
<td>WMDC</td>
<td>Wakefield Metropolitan District Council</td>
</tr>
<tr>
<td>IED</td>
<td>Industrial Emissions Directive</td>
<td>ZTV</td>
<td>Zone of Theoretical Visibility</td>
</tr>
</tbody>
</table>

*(the Proposed Development)*

The Site: The site within which the Proposed Development will be constructed, as defined by the indicative DCO (Application Site) red line boundary.