

Riverside Energy Park

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Contents

1	Introduction.....	1
2	Local Authority	2
2.1	Greater London Authority	2
2.2	Kent County Council.....	63
2.3	London Borough of Bexley	68
2.4	London Borough of Tower Hamlets	97
3	Statutory Organisations.....	99
3.1	East London Waste Authority.....	99
3.2	Environment Agency	105
3.3	Eversheds Sutherland LLP on behalf of Thames Water Utilities Limited	108
3.4	Eversheds Sutherland on behalf of National Grid Electricity Transmission Plc	128
3.5	Shakespeare on behalf of Western Riverside Waste Authority	130
3.6	Winckworth LLP on behalf of Port of London Authority	142
3.7	Womble Bond Dickinson (UK) LLP on behalf of Network Rail.....	143
4	Non-statutory Organisations	146
4.1	Friends of Crossness Nature Reserve	146
4.2	Greenwich-Bexley Environment Alliance	161
5	Members of the public/business	169
5.1	Barbara Fairbairn	169
5.2	Dave Putson Councillor Belvedere Ward (Labour)	176
5.3	Knights on behalf of S Wernick and Sons Ltd and Wernick Event Hire Ltd.....	205
5.4	Knights on behalf of SAS Depot Limited	206
5.5	Mrs Margaret J White	214
5.6	Jon Cruddas MP.....	222
5.7	Rt Hon Teresa Pearce MP	234

Tables

Table 2.1: Policy Compliance.....	6
Table 2.2: Technical Elements of the Proposed Development	18
Table 2.3: Bicarbon figures for all 4 scenarios within the Carbon Assessment	22
Table 2.4: Benefits of Energy from Waste in accordance with NPS EN-3.....	25
Table 2.5: Local Authority Collected Waste incineration and recycling rates across four London boroughs, 2017/18 (an update of the table in UKWIN RR at paragraph 80)	46
Table 2.6: Summary of median gate fees for waste management options, WRAP reporting, 2011 to 2018 (£ per tonne).....	47
Table 5.1: Responses to bullet points raised by Counsellor Putson.....	179
Table 5.2: Updated Responses to concerns raised by Councillor Dave Putson in May 2018.....	183

Table 5.3: Responses to findings of the London Assembly Environment Committee 'Waste: Energy from Waste' report (February 2018).....	199
Table 5.4: Responses to further comments made by Councillor Dave Putson	202
Table 5.5: Applicant's response to Paragraphs 14 to 22 of SASDE's WR	210

Figures

Figure 2.1: Extract from Land Plans (Rev 1)	95
Figure 2.2: Extract from Access and Rights of Way Plans (Rev 1).....	95

Appendices

Appendix A	Response to Appendix 1 (Analysis of Carbon Intensity Floor Calculations) to Greater London Authority Written Representation.....	257
Appendix B	Comparison of EfW capacity need identified in the GLA WR and the Applicant's LWSA.....	266
Appendix C	Riverside Resource Recovery Facility Heat Export Feasibility	293
Appendix D	Applicant response to LBB's tracked-change draft of the DCO	294

1 Introduction

- 1.1.1 This document, submitted for Deadline 3 of the Examination, contains the Applicant's responses to Written Representations (WR) submitted to the Secretary of State by Deadline 2 of 20 May 2019.
- 1.1.2 For defined terms, please refer to the **Project Glossary (1.6, REP2-031)**.
- 1.1.3 A total of 18 WRs, one Written Statement and one email were received. This document has been structured to provide a response to the individual Interested Party/Respondent, which are grouped as follows:
- Individual responses to Local Authorities (**Chapter 2**);
 - Individual responses to Statutory Organisations (**Chapter 3**);
 - Individual responses to Non-statutory Organisations (**Chapter 4**); and
 - Individual member of the public / business (**Chapter 5**).

2 Local Authority

2.1 Greater London Authority

Introduction

2.1.1 The Greater London Authority (GLA) has raised seven areas of concern within their Written Representation (WR) (see **REP2-071** to **REP2-074**). These relate to:

- Heat Offtake (WR1);
- Renewable Energy (WR2);
- Carbon (WR3);
- Excess Waste Capacity (WR4);
- Waste Transfer Impacts (WR5);
- Air Quality (WR6); and
- Construction Traffic (WR7).

2.1.2 Our response covers each of these issues in turn below and refer to specific paragraph numbers in the GLA's Written Representation as required.

2.1.3 **Appendix A** of this response provides a response to **Appendix 1** (Analysis of Carbon Intensity Floor Target) of the **GLA's WR (REP2-072)**.

Heat Offtake (WR1)

Projected Demand

2.1.4 In **Paragraph 3** of the **GLA's WR**, the GLA claim that the "*Applicant's study of heat demand (document 5.4 Combined Heat and Power Assessment) focuses on heat supply from the proposed ERF and ignores the fact that the existing adjacent RRRF is also equipped with heat offtake as a planning requirement in readiness to supply a future a heat network.*"

2.1.5 In accordance with the relevant National Planning Statement (**Section 4.6** of **NPS EN-1** and **Paragraphs 2.5.26** and **2.5.27** of **NPS EN-3**) and Environment Agency (EA) guidance 'CHP Ready Guidance for Combustion and Energy from Waste Power Plants', the primary objective of a CHP assessment is to assess heat export opportunities, in a technical and economic context, with respect to the proposed development. In the case where alternative heat sources exist within sufficient proximity of the proposed development (as is the case for REP), the Applicant is obliged to consider the additional benefits which may be realised if an additional heat supply connection is made. **Section 6.9** of the **Combined Heat and Power Assessment (5.4; APP-035)** submitted in support of the DCO Application, presents the review of additional heat sources in the region and in particular, the benefits

associated with heat supply from RRRF, which presents an opportunity to increase the capacity of a heat network developed in the region. The availability and thermal export capacity of RRRF is broadly equivalent to that of the proposed REP Energy Recovery Facility (ERF). As discussed in **Paragraph 2.1.12** of this response, there is a significant volume of existing and proposed local heat demand which would require heat supply from both REP and RRRF to be satisfied and for the benefits of renewable/low carbon heat provision to be maximised.

- 2.1.6 As set out in **Section 3.2** of the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**, based on the results of the National Heat Map (commissioned by DECC and subsequently adopted by BEIS), a total demand of approximately 8,300 GWh/annum exists across a registered 534,734 addresses within 10 km of the Proposed Development. Owing to the high heat density around the REP site, heat networks are deemed by the Mayor of London to provide a competitive solution for supplying heat to buildings and consumers. REP therefore falls within an identified Heat Network Priority Area.
- 2.1.7 Following screening of consumers which cannot be viably connected due to local infrastructure, topology and technical incompatibility, two key heat network options have been identified.
- Option 1 would comprise supply of heat to new residential developments, located to the west of the REP site, via a low temperature heat network. Development ambitions for the region are significantly greater than the conservative numbers proposed in the **Combined Heat and Power Assessment (5.4, APP-035)**, which considered the development of approximately 14,000 residential dwellings. Up to 20,000 dwellings and commercial properties are proposed as part of a Thamesmead regeneration programme. When accounting for the entirety of the proposed development volume, there is a surplus of heat demand which could not be satisfied by REP exclusively.
 - Option 2 would comprise connection of businesses located to the south and east of the REP site along Burt's Wharf. An estimated total heat demand of 291 GWh/annum has been identified following screening of buildings which would be unviable to connect. The heat demand requirements of individual businesses, and whether the REP ERF could supply the heat grade required, would need to be explored further. However, there appears to be an abundance of heat demand in relatively close proximity to the REP Site, which could be supplied by hot water or steam from REP and offset carbon emissions.
- 2.1.8 Option 1 is the Applicant's preferred solution for delivering a heat network in the region with the associated benefits of minimising heat losses, supporting economic growth and regeneration and providing social benefits.
- 2.1.9 As a result of the highly efficient REP design, exporting heat from REP to either of these options would present a network which is defined as 'Good Quality' CHP under the Combined Heat and Power Quality Assurance (CHPQA) scheme.

Additionally, the scheme would qualify as high-efficiency cogeneration as defined in the Energy Efficiency Directive (EED).

2.1.10 The GLA in its WR discusses (**Paragraph 3.6-3.8**) the findings of the Thamesmead & Belvedere Heat Network Feasibility Study¹, authored by Ramboll and funded through the Mayor's Decentralised Energy Enabling Project (DEEP). Phase 2 of the feasibility study, dated 2nd May 2019 (and contained in Appendix 2 to the GLA's WR (**REP2-073**)), comprises detailed techno-economic modelling of heat export focusing on RRRF. Ramboll's Phase 2 feasibility study concludes that there is potential to deliver a commercially viable heat network which would offer carbon savings over the counterfactual cases of new air source heat pump plant or gas-fired CHP led communal heating schemes. The Applicant welcomes Ramboll's view of the benefits and viability of delivering a heat network.

2.1.11 Ramboll's Phase 2 feasibility study recognises that the provision of supplementary heat generation and storage is required to meet year-round demand which is proposed to comprise a mix of centralised and distributed plant. Ramboll also states at **Paragraph 5 of Section 7**, that "*If a more aggressive build-out scenarios are considered for both the Core Scheme and additional sites further afield, in both Bexley and Greenwich, it is likely that a further heat source(s) beyond the existing Cory plant [RRRF] would be required to meet total heat demands.*" This conclusion is welcomed by the Applicant. Given the Mayor's desire to tackle London's housing crises and the Mayor's own assessment conceding that build out rates need to rapidly increase, the Applicant is surprised that the GLA does not recognise this independent conclusion that heat sources beyond RRRF are likely to be required.

2.1.12 It is therefore evident that a realistic build-out scenario, and in order to meet the Mayor's own ambitions, would require heat provision from both REP and RRRF. Ramboll has identified a total heat demand of 141 GWh/annum "*for all potential connections*" which, based on a residential led network, may necessitate an additional source of heat on this basis alone. This is because heat demand resulting from residential led networks are highly variable in nature, undergoing both seasonal and diurnal variation due to heat consumption patterns. Even with incorporation of a proportionately high level of thermal storage, allowance must be made for variations in heat demand. In any case, at **Paragraph 2 of Section 7 of Ramboll's Phase 2** feasibility study, back-up requirements are reported as a necessity and the benefits of connecting both facilities to a network would offer the optimum case in terms of low carbon heat year round, in addition to displacing air quality impacts in close proximity to residential areas.

2.1.13 This independent report supports the Applicant's own assessment of CHP demand in the area of the REP site. As required by NPS EN-1, **Paragraph 4.6.7**, opportunities for future CHP demand is a criterion that should be adopted when considering locations for a project. Given the REP site is located in a Heat Network Priority Area and the catchment area for heat from REP includes two opportunity areas (Thamesmead and Abbey Wood OA and Bexley Riverside OA), the Applicant considers that the REP site is a prime site for low carbon generation that has the

¹ Thamesmead & Belvedere Heat Network Feasibility Study: Work Package 1, Ramboll, 6 December 2018

likely potential to provide heat to buildings and consumers via a heat network, which the Mayor of London deems provide competitive solutions.

2.1.14 **Table 2.1** below demonstrates how the Proposed Development meets not only the National Policy Statements, but also the Adopted London Plan and the Draft London Plan, in respect of CHP.

Table 2.1: Policy Compliance

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
National Policy Statement EN-1		
Paragraph 4.6.6	An application to develop a thermal generating station must include CHP or contain evidence that the possibilities for CHP have been fully explored.	<p>Yes</p> <p>The Applicant is applying for a "CHP-Enabled" generating station, which is a higher state of readiness than "CHP Ready", as all the on-site infrastructure necessary to connect to a heat distribution network will be in place.</p> <p>In addition, the Applicant has submitted a Combined Heat and Power Assessment (5.4, APP-035), which contains a heat demand investigation, an economic assessment, energy efficiency measures, compliance with the EA's CHP-Ready Guidance and conclusions. In addition, the Applicant has submitted a Combined Heat and Power Supplementary Report (5.4.1; REP2-012), which contains a heat export strategy and a further demand analysis as well as a letter from Peabody, who are driving forward the regeneration of Thamesmead, who confirm Cory's commitment to delivering CHP from both RRRF and the proposed REP.</p>
Paragraph 4.6.8	<p>The applicant should:</p> <ul style="list-style-type: none"> ▪ explain why CHP is not economically or practically 	<p>Yes</p> <p>See response above to NPS EN-1 paragraph 4.6.6 and the Applicant's Combined Heat and Power Assessment (5.4; APP-035) and the Combined Heat</p>

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
	<p>feasible...;</p> <ul style="list-style-type: none"> ■ provide details of any potential future heat requirements in the area that the station could meet; and ■ detail the provisions in the proposed scheme for ensuring any potential heat demand in the future can be exploited. 	<p>and Power Supplementary Report (5.4.1, REP2-012).</p>
<p>Adopted London Plan (2016)</p>		
<p>Paragraph 5.9</p>	<p><i>"...the London Plan seeks to support the development of decentralised energy systems, including the use of low carbon and renewable energy and the greater utilisation of energy generated from waste. This will also allow London to generate more of its own energy needs and enhance the security of its energy supply."</i></p>	<p>Yes</p> <p>The Proposed Development is both low carbon (part of the ERF) and renewable (part of the ERF and the Anaerobic Digestion plant and solar panels). In addition, the Proposed Development encompasses battery storage technology.</p> <p>The Applicant is applying for a "CHP-Enabled" generating station, which is a higher state of readiness than "CHP Ready", as all the on-site infrastructure necessary to connect to a heat distribution network will be in place.</p>

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
		<p>The Proposed Development will assist in London becoming self-sufficient, the Mayor's aim, both in terms of dealing with its own waste and generating electricity. Regarding the former, as has been demonstrated in the Applicant's London Waste Strategy Assessment (Annex A to the Project and its Benefit's Report (PBR) (7.2, APP-103)), in order for the Mayor of London to achieve his adopted, and indeed draft, plan policies and for London to be self-sufficient, there is demand for REP in excess of its nominal, and indeed theoretical, capacity not just now but in 2036 as well (see Table 6.1 (7.2, APP-103))).</p>
Paragraph 5.10	<p><i>"[The Mayor] believes that London's waste is potentially a valuable resource that can be exploited for London's environmental, economic and social benefit."</i></p>	<p>Yes</p> <p>1. REP is a low carbon and renewable energy generating station. The Applicant's Carbon Assessment (8.02.08; REP2-059), demonstrates that even in electricity only mode, REP will have a carbon saving compared to sending the same amount of waste to landfill. This saving increases with the export of heat.</p> <p>2. The Proposed Development will meet the Adopted, and Draft, London Plan policies and help London become self-sufficient - as Table 6.1 shows in the Applicant's London Waste Strategy Assessment (Annex A to the PBR (7.2, APP-103)), there is always a need for REP in excess of its nominal, and indeed theoretical, capacity</p>

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
		<p>not only in 2026 but also in 2036 as well.</p> <p>3. REP will move waste up the waste hierarchy and replace landfill, whilst complementing recycling.</p> <p>4. The Applicant is applying for a "CHP-Enabled" generating station, which is a higher state of readiness than "CHP Ready", as all the on-site infrastructure necessary to connect to a heat distribution network will be in place. As the Mayor has acknowledged, district heating systems have an economic and societal benefits.</p> <p>5. The Applicant is committed to the use of river transport for the delivery of waste to the ERF and the Anaerobic Digestion elements of REP, and this is secured in the draft Development Consent Order (dDCO) (3.1, Rev 2) submitted at Deadline 3. Maximising the use of the river and existing jetties is a London Plan priority.</p>
Policy 5.2	<p><i>"Development proposals should make the fullest contribution to minimising carbon dioxide emissions..."</i></p>	<p>Yes</p> <p>REP will have a carbon saving compared to landfill even in electricity generation mode only. In addition, REP is designed to be CHP-Enabled, which is a higher state of readiness than "CHP Ready", as all the on-site infrastructure necessary to connect to a heat distribution network will be in place.</p>

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
		Refer to the Applicant's Carbon Assessment (8.02.08, REP2-059) , Combined Heat and Power Assessment (5,4, APP-035) and Combined Heat and Power Supplementary Report (5.4.1, REP2-012) .
Policy 5.5	<i>"The Mayor expects 25 per cent of the heat and power used in London to be generated through the use of localised decentralised energy systems by 2025. In order to achieve this target the Mayor prioritises the development of decentralised heating and cooling networks at the development and area wide levels, including larger scale heat transmission networks."</i>	Yes This policy cannot be achieved without facilities such as REP. Both the findings of the Ramboll feasibility study, funded through the Mayor's Decentralised Energy Enabling Project (DEEP), and the Applicant's own heat demand analysis (Combined Heat and Power Assessment (5,4, APP-035) and Combined Heat and Power Supplementary Report (5.4.1, REP2-012)), demonstrate that there is need for REP and the likely developments that would receive the heat supply.
Paragraph 5.32 to Policy 5.5	<i>"Supported by planned development, London's future district heating networks will evolve from natural gas CHP to being supplied by energy from waste....Renewable energy DE opportunities including the use of energy from waste and biomass schemes are also supported."</i>	Yes This policy cannot be achieved without facilities such as REP. Both the findings of the Ramboll feasibility study, funded through the Mayor's Decentralised Energy Enabling Project (DEEP), and the Applicant's own heat demand analysis (Combined Heat and Power Assessment (5,4, APP-035) and Combined Heat and Power Supplementary Report (5.4.1, REP2-012)), demonstrates that there is need for REP and the likely developments that would receive the heat supply.

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
Policy 5.6	<i>"Development proposals should evaluate the feasibility of Combined Heat and Power (CHP) systems, and where a new CHP system is appropriate also examine opportunities to extend the system beyond the site boundary to adjacent sites"</i>	<p>The Applicant is applying for a "CHP-Enabled" generating station, which is a higher state of readiness than "CHP Ready", as all the on-site infrastructure necessary to connect to a heat distribution network will be in place.</p> <p>In addition, the Applicant has submitted a Combined Heat and Power Assessment (5,4, APP-035), which contains a heat demand investigation, an economic assessment, energy efficiency measures, compliance with the EA's CHP-Ready Guidance and conclusions. In addition, the Applicant has submitted a Combined Heat and Power Supplementary Report (5.4.1, REP2-012), which contains a heat export strategy and a further demand analysis as well as a letter from Peabody, who are driving forward the regeneration of Thamesmead, who confirm Cory's commitment to delivering CHP from both RRRF and the proposed REP.</p>
Paragraph 5.41 to Policy 5.7	<i>"The increased use of renewable heat will also significantly depend on the growth of heat networks. The Mayor and Boroughs will also encourage community-led initiatives for renewables and low carbon energy and examine how they can be supported through neighbourhood planning (see Policy 7.1)."</i>	<p>Yes</p> <p>This policy cannot be achieved without facilities such as REP. Both the findings of the Ramboll feasibility study, funded through the Mayor's Decentralised Energy Enabling Project (DEEP), and the Applicant's own heat demand analysis Combined Heat and Power Assessment (5,4, APP-035) and Combined Heat and Power Supplementary Report (5.4.1, REP2-012), demonstrates that there is need for REP and the likely</p>

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
		developments that would receive the heat supply.
Draft London Plan (2018)		
Paragraph 9.3.2 to Policy S13	<p><i>"London will need to shift from its reliance on using natural gas as its main energy source to a more diverse range of low and zero-carbon sources, including renewable energy and secondary heat sources. Decentralised energy will become an increasingly important element of London's energy supply and will help London become more self-sufficient and resilient in relation to its energy needs."</i></p>	<p>Yes</p> <p>The Proposed Development is both low carbon (part of the ERF) and renewable (part of the ERF, the Anaerobic Digestion plant and solar panels). In addition, the Proposed Development encompasses battery storage technology.</p> <p>The Applicant is applying for a "CHP-Enabled" generating station, which is a higher state of readiness than "CHP Ready", as all the on-site infrastructure necessary to connect to a heat distribution network will be in place.</p> <p>The Proposed Development will assist in London becoming self-sufficient, the Mayor's aim, both in terms of dealing with its own waste and generating electricity. Regarding the former, as has been demonstrated in the Applicant's London Waste Strategy Assessment (Annex A to the PBR (7.2, APP-103)), in order for the Mayor of London to achieve his adopted, and indeed draft, plan policies and for London to be self-sufficient, there is demand for REP in excess of its nominal, and indeed theoretical, capacity not just now but in 2036 as well (see Table 6.1 of Annex A of the PBR, (7.2, APP-</p>

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
		103)).
Paragraph 9.3.4 to Policy SI3	<i>"Where developments are proposed within Heat Priority Networks but are beyond existing heat networks, the heating system should be designed to facilitate future connection."</i>	<p>Yes</p> <p>The REP site is located in a Heat Network Priority Area and the catchment area for heat from REP includes two opportunity areas (Thamesmead and Abbey Wood OA and Bexley Riverside OA).</p> <p>The Applicant is applying for a "CHP-Enabled" generating station, which is a higher state of readiness than "CHP Ready", as all the on-site infrastructure necessary to connect to a heat distribution network will be in place.</p>
Policy SI8C/4	<i>"The following are particularly encouraged – development proposals which.... provide combined heat and power and/or combined cooling heat and power"</i>	<p>Yes</p> <p>The Applicant is applying for a "CHP-Enabled" generating station, which is a higher state of readiness than "CHP Ready", as all the on-site infrastructure necessary to connect to a heat distribution network will be in place.</p> <p>Both the findings of the Ramboll feasibility study, funded through the Mayor's Decentralised Energy Enabling Project (DEEP), and the Applicant's own heat demand analysis (Combined Heat and Power Assessment (5,4, APP-035) and Combined Heat and Power Supplementary Report (5.4.1, REP2-012)), demonstrates that there is need for REP and the likely</p>

Paragraph/Policy	Wording of Paragraph/Policy	Compliance
		developments that would receive the heat supply.

Public Involvement

- 2.1.15 The GLA in its WR (**Paragraph 3.9**) correctly states that “*The Peabody Housing Association and the Applicant were part of the heat study steering group.*” Following issue of the Phase 1 study in December 2018, the Applicant met with the study author (Ramboll) on 20th February 2019 and provided comments on the technical and commercial assumptions adopted within the study and discussed next steps in delivery of a heat network in the region. To assist in the Phase 2 study, the Applicant provided Ramboll with a technical note outlining feasibility studies commissioned by the Applicant since 2014 to explore heat export from RRRF (attached at **Appendix C** of this response). The note substantiates technical assumptions in respect of heat export, covering heat export system configurations for hot water and steam options, presents equipment layouts, identifies space available for heat recovery and distribution equipment and sets out an indicative pipe route. **Section 3.1** in the **Ramboll Phase 2 study (Appendix 2 of the GLA's WR (REP2-073))**, sets out the engagement that Ramboll has had with the Applicant in respect of the export of heat from RRRF. This itself demonstrates the commitment that the Applicant has made to delivering heat from RRRF.
- 2.1.16 The 2019 Ramboll report concluded that a heat network connected to the RRRF supplying the forecast heat demand in the area would be feasible and viable. The GLA in its WR (in **Paragraph 3.9**) discuss the delivery of the heat network in respect to funding. “*Given the high initial investment cost for the network and the uncertainty of future income from heat sales, the study indicates that project is unlikely to be of interest to the private sector without public sector support.*”
- 2.1.17 This position is typical for heat networks at the scale under consideration. Cross party collaboration, in particular with public sector bodies, is fundamental to driving heat uptake by end consumers, supporting the consenting process, mitigating strategic risk and, where necessary, offering financial support such that the benefits associated with low carbon/renewable heat provision can be realised.
- 2.1.18 The GLA in its WR (in **Paragraph 3.10**) states that “*At present, there is still considerable uncertainty as to when the RRRF would be able to export heat for use in a local heat network.*” As summarised in **Paragraph 2.1.5** of this response and set out in detail in the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**, the Applicant provided a comprehensive update on the status of heat provision from RRRF. The Applicant has also detailed this position consistently to stakeholders in person on the Bexley District Heating Partnership Board. As Ramboll themselves recognise in **Paragraph 3.1** of the Phase 2 study (**Appendix 2 of the GLA WR (REP2-073)**), work has already been undertaken by the Applicant at RRRF with regard to plans for facilitating heat offtake from the plant. A heat exchange plant arrangement within RRRF is also shown in the study (Figure 18).
- 2.1.19 The GLA in its WR (in **Paragraph 3.11**) states that the Applicant, in respect of the DCO Application, has not provided enough evidence on the plant configuration or heat offtake opportunities to demonstrate that CHP is feasible or deliverable. Building on **Paragraph 6.4.1** of the **Combined Heat and Power Assessment (5.4,**

APP-035), which outlines the levels of engagement the Applicant has engaged with local developers, local planning authorities (London Borough of Bexley and Royal Borough of Greenwich) and the GLA regarding to the opportunities for CHP, the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** expands further on the Applicant's commitments. Specifically, the Applicant is making significant steps, at its own cost, in establishing and maintaining momentum in the heat network development process via the Bexley District Heating Partnership Board.

2.1.20 The Partnership Board is attended by representatives from the London Borough of Bexley (LBB), the Royal Borough of Greenwich (LBG), the Greater London Authority (GLA), housing developers Peabody and Orbit Homes, and the Applicant, and was established in 2018 with the ambition of establishing a collective multi stakeholder approach to the development of a heat network in the locality. The Applicant has expressed its strong intention to supply renewable/low carbon heat for residents and commercial developments through the provision of a low temperature heat network.

2.1.21 Through the Partnership Board the Applicant has engaged extensively with Peabody LBB's development partner for the Thamesmead and Abbey Wood area of the Borough. Peabody has recognised and welcomes the Applicant's strong commitment and approach in respect of these efforts, as detailed in a letter of support (dated 17th April 2019), provided as **Appendix A** to the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**, which states: "*We [Peabody] write in support of the effort and commitment shown by Cory Riverside Energy in seeking to progress the development of a Combined Heat and Power (CHP) district heating network to serve Belvedere, Thamesmead and other neighbouring areas...Cory have attended all Partnership Board meetings and has played an integral role in progressing the development of a CHP heat network scheme...Peabody support Cory's ongoing support and commitment to the collective goal of developing a heat network in Thamesmead and Belvedere to serve the local area which will utilise heat from RRRF and REP.*"

2.1.22 In respect to plant configuration, **Section 5.3** of the **Combined Heat and Power Assessment (5.4, APP-035)** provides an overview of the technical parameters of the ERF, while **Section 5.4** provides an explanation of all options available for the recovery of heat from the process. The preferred configuration and a rationale for the proposed approach is presented in **Section 5.4.8** of the **Combined Heat and Power Assessment (5.4, APP-035)**. Additional design details of the heat recovery configuration and the heat distribution system are presented in **Section 6.7** of the **Combined Heat and Power Assessment (5.4, APP-035)**. The Applicant therefore considers that sufficient details of the proposed plant configuration were provided at a level proportionate to the development stage of the Proposed Development, and with sufficient flexibility to maximise the potential for the highest possible volumes of heat export.

2.1.23 **Paragraph 2.1.14** above demonstrates how the Proposed Development meets not only the National Policy Statements, but also the Adopted London Plan and the Draft London Plan, in respect of CHP.

- 2.1.24 The GLA in its WR (in **Paragraph 3.15**) states, “*The two long-established incinerators in London, the Edmonton EcoPark in Enfield and the South East London Combined Heat and Power (SELCHP) in Bermondsey, operated in electricity-only mode for many years.*” Conversely, the Applicant notes that the Beddington ERF, through appropriate multi stakeholder engagement and support from the public sector, will likely be exporting heat within the early years of operation.
- 2.1.25 The GLA references the proposed new Edmonton (North London) EcoPark ERF as including heat offtake “*as a result of the local borough's response to the Mayor's Upper Lea Valley Opportunity Area Planning Framework, the Mayor's previous Climate Change Strategy, and development support funded by the GLA.*” The Applicant would highlight that the REP site is located in a Heat Network Priority Area and the catchment area for heat from REP includes two opportunity areas (Thamesmead and Abbey Wood OA and Bexley Riverside OA). As the independent report by Ramboll (appended to the GLA's WR) makes clear, there is a likely heat demand requirement for both RRRF and REP. Given this opportunity, and indeed the Mayor's own policies to tackle the housing crisis and the economical benefits of district heating networks, the Applicant considers that it would be strange if the same level of public support for the opportunity that both REP and RRRF will provide to Thamesmead and Abbey Wood OA and Bexley Riverside OA is not realised. The GLA cannot criticise the Applicant for seeking to provide an opportunity for London and to help satisfy the London Plan policies on the basis that there should be additional public support as the latter is in the gift of the GLA. All the Applicant can do, indeed all that any applicant can do, is provide the opportunity. This is what the Applicant has been doing and will continue to do.
- 2.1.26 The GLA in its WR (in **Paragraph 3.16**) discusses their support for the heat network resulting from Viridor's Beddington ERF in Sutton. The proposed design for REP would offer improved efficiency beyond the performance of Beddington ERF, as evidenced by its performance against the Mayor's Carbon Intensity Floor (CIF) policy and the underlying industry leading design (the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**). The Applicant is taking equivalent steps, at its own cost, to those taken by Viridor, arguably at an earlier development phase (pre-development consent, pre-permit and pre-financial close). Principally, the Applicant is establishing and maintaining momentum in the heat network development process via the Bexley District Heating Partnership Board. The Applicant is willing to make equivalent commitments and would welcome a reciprocated level of support from the GLA, noting that the LBB, in its Written Representation (**REP2-080**) has stated its position as supportive of the scheme in principle.

Technical Information

- 2.1.27 The GLA in its WR (**Paragraph 3.17**) incorrectly states that REP would only be CHP-ready. The Applicant can confirm that REP exceeds the requirement for 'CHP ready' and will be CHP Enabled. There is an important distinction between the two. As detailed in **Paragraph 2.1.6** of this response, the CHP Assessment contains sufficient detail in respect of heat offtake provision. As explained in **Sections 1.1.6,**

1.1.10, 1.1.12, 2.5.3, 3.2.4, 3.3.4, 3.4.5, 3.4.15 and **10.1.1** of the **Combined Heat and Power Assessment (5.4, APP-035)**, REP exceeds the requirement for 'CHP ready' and will be CHP Enabled. This means that REP would fully capable of exporting heat from commencement of operations, with all required on site infrastructure in place, thereby demonstrating the Applicant's strong commitment in implementing a district heating scheme.

2.1.28 **Paragraph 3.18** of the **GLA's WR** requests "*The following technical details of the project should be required to ensure it has the capability to enable a heat network at a later date...*". The Applicant can confirm that the Proposed Development encompasses all of this infrastructure, as demonstrated in **Table 2.2** below.

Table 2.2: Technical Elements of the Proposed Development

Technical detail requested from the GLA	Work Number in the draft Development Consent Order (3.1, Rev 2, submitted at Deadline 3).
<i>...that the steam turbine will be procured with tappings, stating the steam pressures and temperatures and complete with suitable isolation values for a steam off-take to supply the district heating heat exchangers</i>	<p>Work Number 3 encompasses "combined heat and power equipment including heat exchangers, pipework (including flow/return pipework, valving, pumps, pressurisation and water treatment systems"</p> <p>Section 5.4.8 of the Combined Heat and Power Assessment (5.4, APP-035) proposes heat recovery from the steam turbine (via 'tappings', or turbine bleeds) as the preferred solution.</p>
<i>...that there is sufficient space for the necessary pipework and equipment to be installed within the site boundary</i>	<p>Work Numbers 3 and 6 contain the required infrastructure for CHP all within the REP site. In addition, the Applicant has gone further and taken the pipework beyond the REP site to the two sites that have planning permission for data centres - Work Number 7. The Works Plans (2.2, REP2-004) clearly demonstrate that the Applicant has gone to the site boundary and beyond.</p>
<i>that a route for the district heating pipework is safe-guarded to the site boundary and in a position that is practical to connect to the off-site heat network</i>	<p>Work Number 6 covers the whole of the REP site and indeed part of the RRRF site, and it is within this work number that the pipework can be located. This means that the connection point can be where most practical. In addition, the</p>

Technical detail requested from the GLA	Work Number in the draft Development Consent Order (3.1, Rev 2, submitted at Deadline 3).
	Works Plans show Work Number 7, taking pipes down Norman Road to the two sites that have planning permission for data centres.

Synergy between RRRF and the proposed REP

- 2.1.29 In **Paragraph 3.21** of the **WR**, the GLA states that they do *“not agree that the two ERFs could double the amount of heat available to supply the local networks and provide redundancy. The two modes of operation must be independent of each other to be effective. Should both facilities supply heat at more than 50% of their capacities and one fails, then the remaining operating plant would have insufficient capacity to meet the heat demand supplied by the other plant. The two plants could not be regarded as providing adequate redundancy for each other.”*
- 2.1.30 The applicability of this statement would be subject to the volume of heat demand connected, the capacity of alternative (non ERF) back-up plant and thermal storage built into the network, and the time of year at which one facility became unavailable. Clearly in earlier phases of network development, when connected heat demand would be relatively modest, there would be sufficient spare capacity for either plant to provide redundancy. Connection of both facilities to a heat network could increase the volume of heat that could be delivered and would lessen the reliance on fossil fuelled back-up boilers and associated carbon emissions, the extent to which would be dependent on realised network growth and the preferred back-up and thermal storage strategy. These variables will be clarified as a scheme is developed further.
- 2.1.31 Regarding the GLA’s concerns (in **Paragraph 3.22** of their **WR**) around the use of an ERF as a back up facility for another ERF, the Applicant accepts the availability projections stated as broadly representative. While any ERF operating as a power-only generator would not operate as efficiently as it would in CHP mode, it would not be operating inefficiently. Through the permitting regime, the ERF must achieve minimum energy efficiency benchmarks in line with Environment Agency (EA) sector guidance note (**EPR5.01**), and an obligation is typically placed on the operator to establish an energy efficiency plan with provision for review and amendment to include improvements in efficiency as and when proven new equipment and operating techniques become available. In addition, since RRRF was developed as a CHP-Ready facility, EA CHP Ready Guidance stipulates that the electrical efficiency of a CHP-Ready facility should be no less than that of the equivalent non-CHP-Ready plant. On this basis, when operating in power-only mode, even when connected to a heat network, the RRRF would be no less

efficient than it otherwise would have been as a generator optimised for electrical generation exclusively.

- 2.1.32 Due to the variable nature of heat demand profiles and best practice sizing of heat supply infrastructure (relative to demand), the heat export system would not be operating at full capacity for a significant proportion of the year. During these times, the loss of two of three boilers (from RRRF) or one of two boilers (from REP), would not render the back-up heat supply system ineffective. In addition, resilience of each ERF is strengthened due to the fact that steam supply to the heat export system could, in the event of a turbine outage, be maintained from the live steam system via a pressure reducing station. On this basis the likelihood of total loss of heat supply is significantly reduced. In any case, it would not be unusual for heat consumers to retain existing heating systems as back up (where viable) or for gas-fired boilers to be provided as back-up as a tertiary fallback.
- 2.1.33 The GLA (in **Paragraph 3.23** of the **WR**) states that they “*consider the principle of one ERF backing-up the other to increase the resilience of the heat supply system would lead to the inefficient operation of the standby plant, and that the reliability of the heat supply would fall short of what is accepted as good district heating practice.*” This assertion is refuted in **Paragraph 2.1.32** of this response.

Summary

- 2.1.34 The GLA states (in **Paragraph 3.25** of the **GLA WR**) that they object “*to the proposed REP on the basis that the Applicant has overstated the CHP opportunities in its application.*”
- 2.1.35 The Applicant would like to reiterate that a heat demand assessment has been undertaken in accordance, with the methodology outlined in the Environment Agency CHP-Ready Guidance. Based on the results of the National Heat Map (commissioned by DECC and subsequently adopted by BEIS), a total demand of approximately 8,300 GWh/annum exists across a registered 534,734 addresses within 10 km of the Proposed Development.
- 2.1.36 Owing to the high heat density around the REP site, heat networks are deemed by the Mayor of London to provide a competitive solution for supplying heat to buildings and consumers. REP therefore falls within an identified Heat Network Priority Area.
- 2.1.37 Following screening of consumers which cannot be viably be connected due to local infrastructure, topology and technical incompatibility, two key heat network options have been identified. The Thamesmead regeneration programme, comprising circa 20,000 dwellings and associated commercial premises and promoted by Peabody, offers the most favourable solution with the associated benefits of minimising heat losses, supporting economic growth and regeneration and providing social benefits.
- 2.1.38 To fully satisfy the associated demand, heat supply from both REP and RRRF is required. Businesses located on Burt's Wharf represent a significant volume of surplus heat demand which could be progressed as an alternative option. Both of

these heat network options are not fully accounted for in Ramboll's Phase 2 feasibility study.

2.1.39 The GLA go on to say (in **Paragraph 3.25** of the **GLA WR**), "*As there is no evidence of foreseeable heat demand, the proposed ERF would be likely to operate in power-only mode and be a net carbon producer by virtue of its low electricity generating efficiency.*" This statement is in direct conflict with the GLA's position on CIF performance of REP. **Appendix 1** of the **GLA's WR (REP2-072)** states, "*Assuming the facility operates for 8,000 hours per annum, the gross electrical generation efficiency can be calculated as 34%, using the above NCV, electrical output and tonnage data. With respect to the discussion previously set out in **Section 2.1.3**, clearly this is some way above the usual electrical generation efficiency of incineration plant – such performance places the facility at the very top of the range of European plant in respect of gross electricity generation efficiencies.*"

2.1.40 Operating in power-only or CHP mode, the ERF at REP would be the most efficient ERF delivered in the UK to date and as a result, is able to comply with the relevant CIF target using all versions (including those formally published and those not formally published) of the GLA's Ready Reckoner, and in every operational scenario.

2.1.41 The Applicant has demonstrated, as set out in **Section 2.2** of the **Project and Its Benefits Report (PBR) (7.2, APP-103)** and above in **Table 2.1**, REP's compliance with National Policy Statements, the Adopted London Plan and draft London Plan and disputes the assertion made by the GLA in **3.25** of their **WR** that "The ERF would not speed-up the transition to low carbon as required by **EN-1 Paragraph 1.7.2**. It would in fact slow down the transition as it would likely be a carbon-producer."

2.1.42 The Applicant's response to the GLA's Analysis of Carbon Intensity Floor Calculations (see Appendix 1 of the GLA's WR (**REP2-072**)) is set out at **Appendix A** of this response, which explains how REP is able to achieve the CIF threshold of 400 grams of carbon dioxide equivalent generated per kilowatt hour (kWh) of electricity generated in power only mode. Exporting heat would mean the ERF would be considerably lower than the threshold.

Renewable Energy (WR2)

2.1.43 In **Paragraph 3.26** of the **GLA's WR**, the GLA characterises the REP facility as "*a facility for which the principal fuel source would be fossil fuels.*" The GLA builds on this point in **Paragraphs 3.29** and **3.30**, suggesting that "*The portion of the waste stream feedstock that comprises plastics cannot provide renewable energy as plastics are derived from fossil fuel (oil)*" and "*On the understanding that feedstock would be 50% biogenic in mass terms, energy output from the ERF will necessarily be less than 50% renewable, due to the relatively low calorific value of biogenic wastes. The contribution of the ERF to meeting renewable energy and low carbon targets must therefore be adjudged in this context.*"

2.1.44 The Applicant does not dispute that only part of the waste stream is renewable, and that is why the Applicant has referred to REP as both low carbon and renewable. Furthermore, this is accepted in policy, as is explained further below. However, the Applicant does not agree with the GLA's characterisation of REP in this regard. The **Carbon Assessment (8.02.08, REP2-059)** considered four waste compositions, including one following the removal of plastics from the waste stream, and all four had a biocarbon content of more than 50% (see **Table 1** of the **Carbon Assessment (8.02.08, REP2-059)**). The analysis referred to in **Paragraph 3.2.5** of the **PBR (7.2, APP-103)** is from the carbon emission assessment prepared for the operational RRRF and which is presented in **Appendix A** of the **Carbon Assessment (8.02.08, REP2-059)**. The biocarbon figures for all 4 scenarios are set out in **Table 2.3** below.

Table 2.3: Biocarbon figures for all 4 scenarios within the Carbon Assessment

Waste Scenario	Biocarbon content
Operational RRRF	57.2%
Design Waste – RRRF but with some of the plastics removed	64.58%
Reduced food waste – RRRF but with 50% of the putrescible waste removed to take into account more separate collection of food and garden waste	54.05%
Future waste - RRRF waste but with 50% plastics, 50% food and 20% metals removed to model a significant increase in source segregation	64.92%

2.1.45 The data shows that the biocarbon content is more than 50% in all cases, and the lowest figure is for a situation where no plastics at all are removed from the waste. Given the trajectory of current policy, this is an unlikely scenario. Whilst it is therefore reasonable to conclude that the biocarbon content of REP will be higher than 50% at first operation in 2024 (and thus it is a conservative assumption to assume that the ERF element of REP will be only 50% renewable), this ultimately does not affect the policy position as set out further below.

2.1.46 In **Paragraph 3.28** of their **WR**, the GLA states “*whilst certain elements of the proposed REP (i.e. Anaerobic Digestion, solar PV and battery storage) would make a positive contribution to reducing the UK's reliance on fossil fuels and decarbonising the economy, the proposed ERF would not make a significant contribution.*” As explained in the **Carbon Assessment (8.02.08, REP2-059)** and in response to the GLA's representation on carbon (see below at **Carbon WR3**), the ERF will make a positive contribution to decarbonising the economy, reducing

net greenhouse gas emissions by between 107,000 and 212,000 tCO₂e per annum even if no heat is exported.

2.1.47 The GLA concludes this section in **Paragraph 3.31**. "The relevance and significance of renewable energy production relates to the need to decarbonise the economy. Other sections of this document (WR1 Heat Offtake and WR3 Carbon) explain how, notwithstanding the renewable content of the feedstock, the efficiency of electricity production of the ERF in power-only mode, in contrast to the carbon intensity of the grid electricity that the ERF will displace, would result in the facility being a carbon producer until CHP is implemented." The Applicant rejects this assertion, as explained in the responses to WR1 (above) and WR3 (below). The Applicant confirms, with evidence, that the ERF would reduce greenhouse gas emissions in electricity-only mode, as demonstrated in the **Carbon Assessment (8.02.08, REP2-059)** and provide more than 255,000 MWh of renewable electricity (in electricity only mode) annually. This is equivalent to around 240 MW of solar power. Therefore, the Applicant strongly disputes the GLA's pure assertion that the ERF element of REP would delay achievement of the Government's targets for transition to the low carbon economy.

Conflict with National Policy

2.1.48 In **Paragraphs 3.32-3.35** of the **GLA's WR**, the GLA suggests that NPS EN-1 does not support the ERF element of REP. The Applicant considers that the GLA has not only misinterpreted NPS EN-1 but is also wrong in its reading of national policy. The Applicant also notes that the GLA has ignored NPS EN-3.

2.1.49 The UK needs all the types of energy infrastructure covered in EN-1 (which includes Energy from Waste electricity generation) in order to achieve energy security at the same time as reducing (dramatically) greenhouse gas emissions (**EN-1, Paragraph 3.1.1**).

2.1.50 NPS EN-1, as re-affirmed by NPS EN-3, establishes the need for Energy from Waste electricity generation infrastructure and describes this need in **Paragraph 3.4.5** as "*urgent*." It should be noted that nowhere in NPS EN-1 or NPS EN-3 does it require an Energy from Waste plant to be 100% renewable, or indeed 50% renewable. **Paragraph 3.4.3** of **NPS EN-1** states that "*Only waste that cannot be re-used or recycled with less environmental impact and would otherwise go to landfill should be used for energy recovery.*" The ERF at REP will only be able to accept, by virtue of its Environmental Permit, waste that is classed as "residual" waste. The Permit will only allow recyclable waste at the ERF where that waste is unsuitable for recycling. The Applicant has submitted its application for an Environmental Permit on this basis, which is currently being determined by the Environment Agency. Accordingly, **Paragraph 3.4.3** is satisfied.

2.1.51 **NPS EN-3, Paragraph 2.1.2** is explicit: the decision maker should act on the basis that the need for Energy from Waste electricity generating infrastructure has been demonstrated. If there is a need for Energy from Waste electricity generation, then logically there is a need for a scheme for Energy from Waste electricity generation.

Therefore, the ExA and the Secretary of State are told that need for the Proposed Development has been demonstrated.

2.1.52 **Paragraph 3.1.4 of NPS EN-1** then tells the ExA and the Secretary of State that the contribution the project in question would make towards satisfying this already demonstrated need must be given substantial weight. The allocation of substantial weight in **Paragraph 3.1.4** is what the Government has decided should be given to the contribution that energy NSIPs, that are covered by NPSs EN-2 to EN-6, would make.

2.1.53 The precise amount or category of weight (within that floor set of "substantial") is determined on the basis set out in **Paragraph 3.2.3 of NPS EN-1**, which states that *"The weight which is attributed to considerations of need in any given case should be proportionate to the anticipated extent of a project's actual contribution to satisfying the need for a particular type of infrastructure."*

2.1.54 Accordingly, the ExA and the Secretary of State are not required to grapple with whether there is a need for the type of infrastructure in question and, accordingly, whether there is a need for the Proposed Development; the ExA and the Secretary of State are told to assume there is a need and that substantial weight must be given to that need.

2.1.55 What the ExA and the Secretary of State have to grapple with in determining an application, is the precise amount or category of substantial weight to give to the "anticipated extent" of the actual contribution that the project before them would deliver in satisfying that already identified need.

2.1.56 The actual contribution that REP would make to this need can be summarised as follows:

- the ERF at REP would be capable of generating circa 70MW of electricity, providing much needed low carbon/renewable electricity generation;
- Considering the biocarbon content of the waste types modelled in the **Carbon Assessment (8.02.08, REP2-059)**, it is expected that at least 50% of the 70MW can be classed as renewable, which still equates to a renewable Nationally Significant Infrastructure Project, and this policy position does not change if the biocarbon content were to be slightly below 50%;
- If a conservative, electricity only base case is taken of 63.9MW exported (see **Paragraph 3.1.22 of the Carbon Assessment (8.02.08, REP2-059)**, the ERF would be capable of exporting annually 255,000 MWh of renewable electricity. This is equivalent to around 240 MW of solar power (see above at **Paragraph 2.1.47** of this response);
- The ERF's contribution is not limited to generating electricity, but it also delivers on the waste hierarchy, moving waste up the hierarchy and away from landfill. The ERF will also deliver sustainable waste management and net self-sufficiency within London;

- The ERF will have a carbon saving compared with landfill of 137,000 tonnes of CO₂-equivalent per year in electricity only mode. This increases if heat is exported (see further below);
- In addition, REP comprises Anaerobic Digestion and solar PV, renewable generation, as well as battery storage technology that will play an increasingly important role in decarbonising the economy; and
- REP will be CHP-Enabled, providing very real opportunities to support the Mayor in delivering a heat network in a Heat Priority Area which covers two Opportunity Areas.

2.1.57 Consequently, substantial weight should be given to the contribution that the Proposed Development would make towards the identified need. There is no conflict with the NPS EN-1.

2.1.58 Finally, **Paragraph 2.5.2 of NPS EN-3** sets out the benefits of energy from waste as demonstrated in **Table 2.4** below.

Table 2.4: Benefits of Energy from Waste in accordance with NPS EN-3

NPS EN-3 extract	Benefits of the Proposed Development
<i>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.</i>	The ERF at REP will help move waste further up the hierarchy and away from landfill.
<i>Where the waste burned is deemed renewable, this can also contribute to meeting the UK's renewable energy targets.</i>	Over 50% of the waste burned is likely to be classed as renewable.
<i>Further, the recovery of energy from the combustion of waste forms an important element of waste management strategies in both England and Wales.</i>	The ERF at REP, will help London meet its net self-sufficiency targets. A clear need for REP, and indeed for capacity greater than REP is evidenced by the Applicant in rows of Table 6.1 of the London Waste Strategy Assessment, Annex A to the PBR (7.2, APP-103)

2.1.59 The GLA considers (in **Paragraph 3.32** of their **WR**) that “*the ERF element of the proposed REP would not contribute to decarbonisation of electricity capacity when operating as a power-only plant, without any prospect of CHP, and would therefore not comply with national policy objectives.*” As already stated above, the Applicant

has demonstrated that REP would reduce greenhouse gas emissions and so would contribute to the decarbonisation of electricity generation in the UK, even when operating as a power-only plant (see further below). Reference to "no prospect" of CHP is blatantly incorrect, and contradicts the independent Ramboll Phase 2 Study appended to the GLA's WR.

- 2.1.60 The GLA considers (in **Paragraph 3.34**), *"that NPS policy support needs to be considered in the light of waste -feedstock, as the majority of waste feedstock to the ERF is unlikely to comprise a renewable resource."* As noted above, the Applicant considers that the majority of waste feedstock to the ERF will comprise a renewable resource.
- 2.1.61 GLA state (in **Paragraph 3.35** of their **WR**), *"NPS EN-1 considers the need for fossil fuel generating capacity at Paragraph 3.6.8, noting it can provide back-up for when generation from intermittent renewable generating capacity is low and to help with the transition to low carbon electricity generation. It clearly states that "it is important that such fossil fuel generating capacity should become low carbon, through development of CCS, in line with carbon reduction targets". The NPS does not support fossil fuel generation in the absence of CCS. The GLA is concerned that the proposed REP is principally a fossil fuel generation station unless CHP is implemented from the outset and that, in the absence of CCS, it does not comply with NPS EN-1."*
- 2.1.62 First, REP is not a fossil fuel generating station and it is wholly inaccurate to describe it as such. Energy from Waste plants fall within the renewable heading of NPS EN-1 with no specific threshold for renewable energy content (see **Paragraph 3.4.3**) and as previously evidenced, the ERF at REP will likely have a bioenergy content of over 50%, meaning that over 50% of the electricity generated will be classed as renewable. As stated above, the ERF at REP will comply with **Paragraph 3.4.3** of **NPS EN-1** as it will only accept, by virtue of its Environmental Permit, waste that is classed as "residual" waste. The Permit will only allow recyclable waste at the ERF where that waste is not suitable for recycling. The Applicant has submitted its application for an Environmental Permit on this basis, which is currently being determined by the Environment Agency.
- 2.1.63 Second, and in any event, **Paragraph 3.6.8** does not apply to REP. Carbon Capture and Storage only requires consideration for fossil fuel generating stations at or over 300MW, which REP is not. Furthermore, NPS EN-1 does not require a 300MW+ fossil fuel generating station to be operating with Carbon Capture and Storage from first operation, rather it has to demonstrate that it is "Carbon Capture Ready". The GLA simply does not understand the policy position on Carbon Capture and Storage. Put simply, Carbon Capture and Storage is not relevant in the determination of REP.
- 2.1.64 The Applicant's view of compliance with the National Policy Statements as set out in this response, has been supported in multiple planning decisions including the DCO decisions of North London Heat and Power Project, Rookery Energy Recovery Facility and Ferrybridge Energy Recovery Facility.

Use of biogas

- 2.1.65 In **Paragraphs 3.36 to 3.39** of the **GLA's WR**, the GLA argues that it would be preferable for the biogas to be used either by direct injection into the grid or in vehicles, rather than by use in engines to generate electricity.
- 2.1.66 Within **Paragraph 3.37** of their **WR**, the GLA states, *"The air quality chapter of the ES showed that the most significant impacts of the CHP, if incorporated in the wider scheme, would be most severe within the site boundary."*
- 2.1.67 The Air Quality Assessment presented within **Chapter 7 Air Quality** of the **Environmental Statement (ES) (6.1, REP2-019)** is required to assess the reasonable worst case. As stated in **Paragraph 7.4.4** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** *"for the Anaerobic Digestion facility, the potential exists for the biogas to be used to power vehicles within REP site operational workings, or be burned in a gas engine. Of the two options, burning the biogas in a gas engine would provide a worst-case impact in terms of emissions (modelled as being emitted 100% of the time) and this has therefore been assessed."*
- 2.1.68 The Air Quality Assessment concluded that (in **Paragraph 7.9.45** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**) *"The contour plots indicate that the effects of the anaerobic digestion combustion are limited to the immediate vicinity of the REP site and there is no interaction (cumulative effects) with the emissions from the ERF as the impacts of emissions from the ERF are well below the levels of significance."*
- 2.1.69 **Paragraph 7.13.2** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** reports that there will be no likely significant air quality effects on human or ecological receptors as a result of the operation of the Proposed Development, when considered either in isolation or in combination with other planned developments.
- 2.1.70 It is noted that the GLA welcomes (in **Paragraph 3.37** of the **GLA WR**) the proposed use of biogas for vehicle fuel or for injection into a gas network. However, they state that there is no provision in the scheme for a gas offtake pipe. This is not correct. Work Number 5 includes *"infrastructure for the transmission and/or storage of compressed natural gas."* The necessary infrastructure is therefore included in the DCO Application.
- 2.1.71 The respondent concludes *"The GLA considers that only direct use of gas through injection to the grid or in vehicles is appropriate, and that the necessary infrastructure, including storage, should be provided to support this use."* The Applicant agrees and states as such in the ES, as quoted by the respondent in **Paragraph 3.38**. However, the Applicant is aware that there may be obstacles to the preferred option, principally (in the case of injection to grid) whether there is capacity in the local gas network to facilitate biogas injection, engineering of a gas delivery pipeline and securing of relevant (off-site) consents for the installation. In the case of upgrade of biogas to compressed natural gas (CNG) vehicle fuel, there would be a need to establish a market for the sale of vehicle fuel and secure associated licenses, and/or upgrade the waste delivery vehicle fleet to operate on

this fuel source, which is outside of the Applicant's control. The Applicant has therefore allowed for the use of engines to generate electricity if necessary.

Carbon (WR3)

General

2.1.72 In **Paragraph 3.40** of the **GLA's WR**, the respondent states *"London has established a target to be zero carbon by 2050. London's pathway to zero carbon identifies four decarbonisation scenarios to meet this target, none of which have any requirement for new EfW facilities."* The Applicant notes that the referenced document does not consider waste management, except to say that there should be zero waste to landfill by 2026 in the pathway diagram with no indication how this should be achieved. Similarly, the report by Element Energy which underpins the Mayor's report (*"London's Climate Action Plan: WP3 Zero Carbon Energy Systems"*) does not consider waste management at all. It does, however, support the use of waste heat in district heating networks, which is supported by the development of REP as discussed in **Heat Offtake (WR1)** above. The UK is currently in a transition phase and REP, being both low carbon and renewable, satisfies national policy (not only NPSs EN-1 and EN-3, but also the National Planning Policy Framework) of moving towards that low carbon and renewable economy.

2.1.73 It should also be noted, as indeed NPS EN-1 makes clear at **Paragraph 3.3.10** and **3.3.11**, that the UK will require a mix of generating types in order to provide stability and resilience. Energy from waste is identified as one of those types in **Paragraph 3.3.10**.

Importance of CIF policy to London

2.1.74 In **Paragraph 3.41** of the **GLA's WR**, the GLA states, *"To deliver a low carbon future, the GLA, through Mayoral Policy, expects all of London's EfW facilities to only manage truly non-recyclable waste and maximise the use of both the heat and power generated. To achieve this, a minimum carbon emissions level for energy generated from waste has been set, known as the Carbon Intensity Floor (CIF)."* The Applicant notes that the CIF does encourage the maximisation of heat and power generated and further notes that REP would be the most efficient EfW plant in the UK. The CIF does not specifically support the use of non-recyclable waste, although it does support the use of non-fossil fuel derived waste.

2.1.75 In **Paragraph 3.42** of the **GLA's WR**, the GLA states *"the London Environment Strategy (LES) explains how the CIF will be reduced in future in line with the EPS target for London to deliver greenhouse gas savings of -0.167 tonne CO₂e per tonne of waste managed by 2030. Achievement of this target has been modelled assuming that all of London's EfW facilities achieve an overall CIF target of 300 grams of CO₂ equivalent per kWh of electricity. The CIF level will likely continue to be tightened, as the carbon intensity of the marginal source of electricity generation will only fall further."* While the CIF level may be tightened, this is not certain.

- 2.1.76 **Policy 5.17** of the **Adopted London Plan** states that *"Facilities generating energy from waste will need to meet, or demonstrate that steps are in place to meet, a minimum CO₂eq performance of 400 grams of CO₂eq per kilowatt hour (kwh) of electricity produced."* There are two important points here. First the current policy is for plant to meet a carbon intensity floor of 400 grams of CO₂eq per kilowatt hour. And second, the Policy permits a plant to demonstrate how it will achieve a carbon intensity floor of 400 grams of CO₂eq per kilowatt hour, which indicates that a plant could have a higher carbon intensity floor provided it can show the steps that are in place to reduce that floor to the required minimum performance.
- 2.1.77 **Paragraph 5.85A** of the **Adopted London Plan**² states, *"In order to ensure the carbon intensity floor remains relevant, the Mayor will consider reviewing the CIF level in future iterations of the London Plan."*
- 2.1.78 **Page 323** of the **London Environment Strategy**³ (May 2018) states, *"The Mayor will retain, for waste authorities, a target CIF level of 400 grams of CO₂ per kWh of electricity produced from LACW until at least 2025."*
- 2.1.79 **Page 324** of the **London Environment Strategy** states, *"The CIF will be reviewed in 2025, or earlier where appropriate, once London's heat networks and demand are better understood, with a view to tightening it to around 300 grams per kWh of electricity produced."* There is therefore no definitive position on the time or extent of a CIF threshold reduction, but what is clear is that the current policy is for a carbon intensity floor of 400 grams of CO₂eq per kilowatt hour and that has been reinforced by the Mayor as recently as May 2018. Whilst the GLA may have an aspiration to lower the carbon intensity floor, developments cannot be governed by such aspirations as otherwise there would be no point in policy.
- 2.1.80 In **Paragraph 3.43** of the **GLA's WR** the respondent states, *"Waste going to EfW plants often contains large amounts of high value materials for which recycling would realise a substantial carbon benefit. Reducing the amount of high carbon materials (particularly plastics) going to EfW plants will deliver GHG savings and reduce the reliance on fossil fuels. This will drive change and investment within boroughs and with facility operators, to ensure that truly residual waste is used to generate both heat and power for the benefit of Londoners."* The Applicant agrees that the carbon benefit of REP would be even greater if plastics are removed from the residual waste stream. This is demonstrated in the **Carbon Assessment (8.02.08, REP2-059)**. However, this is outside the control of the Applicant - it is down to the waste producer and, indeed, local Governments to assist the waste producer in putting in place the infrastructure and the funding to segregate waste at source.
- 2.1.81 The Proposed Development is able to meet the CIF without the need for additional processing of waste, as the CIF is calculated to be 400 g CO₂/kWh when using GLA's base waste composition, which does not include additional processing.

² <https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan/london-plan-chapter-five-londons-response/pol-16>

³ https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf

Notwithstanding, it is clear that the Mayor has a raft of policy and strategy in place (not least policy SI7 of the draft London Plan and proposal 7.1.1b and Objective 7.3 of the London Environment Strategy) that is intended to drive down the quantities of plastics present in residual waste streams. As it is generally preferable to remove specific waste streams before they are mixed into residual waste, this is a better approach than advocating that each EfW plant operator must incorporate additional pre-treatment. Assuming that the Mayor's policies achieve the desired reduction in plastic waste, the CIF performance of REP would improve, relative to current analysis, in the future.

How the CIF will be achieved

2.1.82 In **Paragraph 3.44** of the GLA's WR, the GLA states *"that the Applicant has not provided sufficient evidence to demonstrate how the proposed ERF will meet the CIF in order to comply with London Plan Policy 5.16 and draft London Plan Policy S18. Specifically, the GLA considers that the Applicant has not provided sufficient evidence to:*

1) demonstrate how the proposed ERF will operate at the claimed electrical efficiencies in determining performance against the CIF noting that the current ERF plant (RRRF) adjacent to the site for the proposed ERF appears to operate at a carbon intensity of 617gCO₂/kWh (see chart 1 below); and

2) satisfy examples of 'demonstrable steps' set out in para 9.8.13 of the draft London Plan to effectively meet the CIF."

2.1.83 The Applicant does not accept either of these points. **Point 1** is addressed in **Appendix A** to this response (the response to **Appendix 1** to the **GLA's WR (REP2-072)**). With regard to **Point 2**, the Applicant has explained the demonstrable steps being taken in **Section 2.1** of the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**.

2.1.84 In **Paragraphs 3.45 to 3.49** of the GLA's WR, the GLA has commented on the CIF calculations and referred to the Eunomia report in **Appendix 1** to its **WR**. The Applicant has responded to this report in detail in **Appendix A** to this response.

2.1.85 The GLA repeats four of Eunomia's conclusions in paragraph 3.49 of their WR. The Applicant has summarised its response to each of these conclusions below, with full details and references in **Appendix A**.

2.1.86 Conclusion Point 1: *"Calculations undertaken using Eunomia's Ready Reckoner, using assumptions provided by Cory, suggest that the ERF will just meet the current CIF target of 400 g CO₂e / kWh electricity. This is however contingent on the facility achieving, in practice, a very high gross electrical generation efficiency of 34%."* The Applicant notes that the GLA and Eunomia agree that, if the Applicant's calculations using the GLA's own tool are correct, then REP meets the current policy CIF target in power-only mode. Regarding the efficiency of 34%, REP is being designed as the most efficient energy from waste plant in the UK, which is in compliance with the December 2018 "Our Waste, our resources: a strategy for

England" document. With advancements in technology, it is not surprising that the latest plant being designed is more efficient than the last one. This advancement should be welcomed and encouraged, rather than dismissed.

2.1.87 Conclusion Point 2: *"The Ready Reckoner tool calculates the energy generation benefits using the Net Calorific Value (NCV). The aforementioned electrical generation efficiency calculation of 34% will not be valid if the facility is, in fact, recovering some additional energy from the water vapour from the flue gases; this appears to be the case from information provided in the Applicant's CHP assessment (document 5.4). Use of the NCV to calculate the fuel's energy content in this case will tend to overstate the efficiency by 20-30%. In this situation it would be more appropriate to use the Gross Calorific Value (GCV) of the input waste to calculate the efficiency, or to adjust the energy output values accordingly. When the GCV, rather than the NCV, is used to calculate the energy balance, the proposed ERF fails to meet the target in power-only mode by some distance."* This approach is simply incorrect. Broadly, the CIF is a ratio between the fossil fuel carbon in the waste and the electricity exported by the plant. The electrical efficiency is used in the CIF ready reckoner to calculate how much electricity is generated from the waste being used. It has been confirmed by both Eunomia and the GLA that all calculations in the CIF Ready Reckoner are carried out on an NCV basis.⁴ Therefore, the energy in the waste is calculated on an NCV basis and so, in order to determine the electricity generated, the electrical efficiency must also be on an NCV basis.

2.1.88 Eunomia is suggesting that a facility which recovers additional energy from the latent heat, thereby allowing the generation of more electricity from a given quantity of waste, should have its efficiency calculated on a different basis so that it appears less efficient. This cannot be correct.

2.1.89 Conclusion Point 3: *"London's EPS has been set assuming all EfW facilities meet a target of 300 g CO₂e / kWh electricity by 2030. Even in the best-case scenario presented by Cory with regards to CHP development, the ERF will fail to meet this target. The proposed ERF's design will therefore undermine London's ability to meet the EPS target in 2030."* As explained above, the CIF target is currently 400 g CO₂e/kWh. This has been confirmed as recently as May 2018 by the Mayor in the London Environment Strategy.

2.1.90 Conclusion Point 4: *"Although the facility will have the technical potential to operate in CHP mode, it is not clear that this potential will be realised, given that the adjacent Cory Riverside Resource Recovery Facility (RRRF) could meet the feasible heat demand with 70% of its heat supply capacity. It is therefore most likely that the ERF will continue to generate only electricity."* The Applicant rejects this assertion, as explained in above in **Heat Offtake (WR1)**.

2.1.91 **Paragraph 3.50** suggests that REP will curtail recycling opportunities. The GLA provides no explanation or evidence for this statement and the Applicant does not

⁴ Email from Doug Simpson (GLA) to Natalie Maletras (PBA) on 13 February 2019. Email from Mark Cordle (Eunomia) to Stephen Othen (Fichtner) on 3 April 2019.

agree. REP will work alongside the achievement of high levels of recycling as explained at **Section WR4** of this response and **Sections 4.2** and **4.3** of the **PBR (7.2, APPP-103)**.

2.1.92 In **Paragraph 3.51** the GLA again asserts that, “Given the need to meet the EPS and the CIF, London needs to significantly increase recycling rates and develop additional pre-treatment facilities, which would remove plastic waste from the residual stream prior to it being sent for incineration. The best opportunities for this to be developed will come from it being included within new treatment capacity. However, there is no evidence that pre-treatment forms part of the proposed REP.” As is addressed in more detail from **Paragraph 2.1.119** there is no policy requirement for a pre-treatment facility to be included within a development proposal for a residual waste management facility. As explained above (**Paragraph 2.1.81**) the Mayor has a raft of policy and strategy initiatives intended to drive down the quantity of plastics present in residual waste streams. As it is generally preferable to remove specific waste streams before they are mixed into residual waste, this is a better approach than advocating that each EfW plant operator to incorporate additional pre-treatment. Assuming that the Mayor’s policies achieve the desired reduction in plastic waste, the CIF performance of REP would improve, relative to current analysis, in the future.

2.1.93 Regarding the conclusions in **Paragraph 3.5.2** of the **GLA WR**:

- *not provided sufficient evidence as to how the ERF can meet the claimed efficiencies* – the ERF is being designed to achieve high efficiency, including the measures listed above in **Paragraph 2.19** and in **Appendix A**.
- *overstated the claimed performance of the ERF against the CIF* – in power-only mode, and as agreed by the GLA, the ERF will have a carbon intensity floor of 400 g CO₂e/kWh. This complies with the policy.
- *failed to include pre-treatment facilities in the REP* – the ERF will meet the CIF without pre-treatment. Any further segregation of waste provided by the GLA and local authorities would be welcomed by the Applicant, as that would lower the CIF even further.
- *not demonstrated how the facility will operate as an effective CHP facility to meet the CIF* - the Applicant does not need CHP to meet the CIF as demonstrated above. In any event, the ERF will be CHP-Enabled, with the necessary infrastructure included in the Proposed Development not only to the REP site boundary but also to the two sites that have planning permission for data centres. In addition, the Applicant has produced two CHP reports - the **Combined Heat and Power Assessment (5.4, APP-035)** and the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**.

Conflict with National Policy

2.1.94 **Paragraph 3.53** appears to suggest that NPSs EN-1 and EN-3 are not good policy. As the ExA will know, the Examination into the Proposed Development cannot

examine the NPSs themselves. **Section 6** of the **Planning Act 2008** provides for the Secretary of State to review an NPS. This review cannot be done through the determination of a single application for development consent. The review of the NPSs is open to the SoS; he has chosen not to do so to date.

- 2.1.95 Of course, the CIF in the London Plan is not the primary policy against which the Proposed Development is to be assessed; that remains the NPSs.
- 2.1.96 In **Paragraph 3.55** of their WR, the GLA states that *“Energy from waste does not make a meaningful contribution to this target [net zero carbon by 2050].”* The Applicant does not agree. As set out above, if a conservative, electricity only base case is taken of 63.9MW exported (see **Paragraph 3.1.22** of the **Carbon Assessment (8.02.08, REP2-012)**), the ERF would be capable of exporting annually 255,000 MWh of renewable electricity. This is equivalent to around 240 MW of solar power (see above at **Paragraph 2.1.47**).
- 2.1.97 However, even if the GLA was correct, achieving net zero emissions by 2050 is a very challenging target and all contributions should be welcomed. Indeed, EN-1 makes it very clear in **Paragraph 3.3.24** that it is not the planning system's role to deliver specific amounts of generating capacity for each technology type and EN-1 does not limit in anyway the need for Energy from Waste electricity generation (it could have done).
- 2.1.98 With respect to setting targets or limitations, EN-1 also makes it quite clear at **Paragraph 3.3.18** that *“it is not possible to make an accurate prediction of the size and shape of demand for electricity”* in the future, which is why targets are not set in reliance on projections. Similarly, the Government's Clean Growth Strategy, October 2017, states at **Page 54** that *“we cannot predict the exact technological changes that will help us deliver on the fourth and fifth carbon budgets (and beyond)”*. Reliance on nuclear demonstrates the reason for the policy position and why targets are not set for technology types, given projected contributions from nuclear now appear a highly unlikely scenario, with proposed nuclear projects at Moorside, Wylfa and Oldbury all on hold and only Hinkley C receiving consent and any prospect of being operational before 2030.
- 2.1.99 In **Paragraph 3.56** the **GLA** continue with *“However, the electricity produced from the existing RRRF has a carbon intensity more than three times the national grid average.”* This is based on the assertion that RRRF's carbon intensity is 617 g/kWh. The GLA has not presented evidence to support this. However, the Applicant notes that treating RRRF simply as a power station is not correct. RRRF diverts 700,000 tonnes of residual waste from landfill, thereby avoiding greenhouse gas emissions. The carbon assessment carried out for Cory and referenced in **Paragraph 1.4.6** of the **PBR (7.2, APP-103)** showed that RRRF saves over 200 kg of CO₂e per tonne. REP would be more efficient than RRRF and so is projected to save 200-345 kg of CO₂e per tonne of waste in power only mode, depending on the waste composition considered.
- 2.1.100 In **Paragraph 3.57** of the **GLA's WR** the GLA states *“Although it is acknowledged that the Energy NPS states that EfW facilities can be part of the energy generation*

mix in the UK, it is clearly stated that only waste that cannot be re-used or recycled with less environmental impact and would otherwise go to landfill should be used for energy recovery.” The Applicant notes that the GLA accepts that NPS EN-1 supports EfW facilities and confirms that REP would process residual waste which meets the requirements in EN-1, as quoted by the GLA. The ERF at REP will only be able to accept, by virtue of its Environmental Permit, waste that is classed as “residual” waste. The Permit will only allow separately collected recyclable waste at the ERF where that waste is unsuitable for recycling. The Applicant has submitted its application for an Environmental Permit on this basis, which is currently being determined by the Environment Agency. Accordingly, NPS EN-1 is satisfied.

2.1.101 The GLA states at **Paragraph 3.59**: *“Moreover, Anthesis conducted waste modelling behind the NIC report and showed that, under a high recycling scenario, there is likely to be excess EfW capacity in England by 2035. More information on the evidence supporting the likelihood of excess EFW capacity in London and the UK is set out in WR4 below.”*

2.1.102 At WR4, the GLA discusses waste capacity but does not consider the Anthesis modelling further. Consequently, the Applicant has responded to this point here.

2.1.103 Anthesis, a global sustainability services and solutions consultancy⁵ was commissioned by the National Infrastructure Commission (the ‘NIC’) to ‘*inform the development of a best value waste management infrastructure investment strategy for England to 2050, by weighing the costs of material separation at source and different treatment/disposal pathways against the economic and environmental benefits.*’ (first paragraph, Executive Summary, page 6) The assessment undertaken was published in a report titled ‘*National Infrastructure Assessment: Waste Infrastructure Analysis for England*’, dated May 2018⁶ (the National Infrastructure Assessment’).

2.1.104 Reference to just the Executive Summary of the National Infrastructure Assessment demonstrates that the GLA has presented an overly simplified summary of its conclusions. The overall findings of the National Infrastructure Assessment are set out from page 8, with the first bullet advising:

“... This study estimates that 15.3 Mtpa of energy recovery capacity will be operational by 2020, meaning that landfill will be required for between 2.8 Mtpa and 4.2 Mtpa of residual waste, unless alternative infrastructure is built.”

2.1.105 These conclusions are based on assumptions that incorporate the expectation that 3.2 Mtpa (million tonnes per annum) of RDF is exported overseas. **The PBR (7.2, APP-103)** makes clear that the continued export of RDF is not a long term sustainable waste management due to the risk of uncertain future available capacity and being a lost opportunity for the recovery of renewable/low carbon energy domestically. In 2018 the UK imported 18.6 Twh of electricity through 4GW of

⁵ www.anthesisgroup.com/about-us. [27.05.2019@13:11]

⁶ <https://www.nic.org.uk/wp-content/uploads/NIC-Anthesis-Report-and-Appendices-FINAL.pdf>
[27.05.2019@13:16]

interconnector capacity with France, Netherlands, Northern Ireland and the Republic of Ireland⁷. This represents typically between 4% to 6% of electrical energy used in the UK. The amount of energy imported to the UK through interconnectors is affected by availability of power within each supply Country. For example, in 2017 the import of power dropped to 4% of national power demand due to failure in a single interconnector, combined with French power generation capacity being affected by a single nuclear plant being 'offline' during this period⁸.

- 2.1.106 The second bullet point in the overall findings (page 9) advises that *'Projections relating to future infrastructure requirements are very sensitive to waste growth within LACW and C&I streams. If waste growth is high due to the impact of population and economic growth, and if waste infrastructure, excluding landfill, in 2020 is not expanded, then the gap between available residual waste treatment capacity and amount of residual waste produced could increase to as much as 16 Mtpa by 2050. If waste growth is low due to the impact of waste minimisation, packaging weight reduction and other initiatives, this could be as low as 2 Mtpa.'*
- 2.1.107 Nobody entirely knows what will happen in the future; there are many variables that will affect both the amount of waste generated and how it is managed. This point is also recognised in the **PBR (7.2, APP-103)** and consequently, the **London Waste Strategy Assessment ('LWSA') (Annex A of The PBR (7.2, APP-103))** considers an appropriate range of scenario that demonstrate, even when incorporating the most conservative assumptions, there remains a need for REP.
- 2.1.108 In addition, and as stated above, it is not the planning system's role to deliver specific amounts of generating capacity for each technology type. The planning system's role is to consent projects that meet the planning tests (**NPS EN-1, Paragraphs 3.3.21 and 3.3.24**); it is for the market to decide whether they are delivered through investment decisions.
- 2.1.109 The third bullet point in the overall findings (**Page 9**) advises that *"To further diversion of residual waste from landfill, most of the segregation scenarios modelled require additional residual waste treatment infrastructure. ... Only with the high recycling scenario is there a risk of 2020 capacity exceeding demand for part of the forecast period, although this would be mitigated by the diversion of exported refuse derived fuel to domestic capacity. ..."*
- 2.1.110 Contrary to the GLA's reading, the National Infrastructure Assessment is very clear that, generally, additional residual waste treatment capacity is required to divert wastes from landfill. It is only in one scenario (a very high recycling scenario, which also incorporates continued export of waste to Europe) that there is shown any potential for existing capacity to exceed demand. However, if the waste that is currently exported to Europe were instead to be treated in England, then additional capacity would be required.

⁷ <https://www.ofgem.gov.uk/data-portal/electricity-generation-mix-quarter-and-fuel-source-gb>

⁸

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728374/UK_Energy_in_Brief_2018.pdf

Implications of Excess Waste Capacity (WR4)

- 2.1.111 At **Paragraph 3.61** of the **GLA's WR**, the GLA objects to REP on the grounds that the ERF will not achieve the waste hierarchy and that the Applicant has not submitted suitable evidence to demonstrate that the fuel for the ERF is "*waste that cannot be re-used or recycled with less environmental impact and would otherwise go to landfill.*"
- 2.1.112 On the contrary, the Applicant has submitted a wealth of evidence to demonstrate that REP will make an appropriate and beneficial contribution to delivering the waste hierarchy, and the circular economy, in London.
- 2.1.113 **Section 4.2** of the **PBR (7.2, APP-103)** demonstrates how REP delivers the waste hierarchy, both in principle (by reference to European legislation and national policy/strategy) and in accordance with the local waste management strategy. The **LWSA (Annex A** of the **PBR (7.2, APP-103))** incorporates a range of scenarios based on the different waste forecasts and recycling assumptions set out in both the adopted and draft London Plans. It is a comprehensive assessment of the waste strategy within London. In all the scenarios, there remains a need for additional residual waste treatment capacity, particularly if London is to achieve its policy priorities of net self-sufficiency and reduced reliance on landfill. Indeed, **Table 6.1** of the **LWSA (Annex A** of the **PBR (7.2, APP-103))** demonstrates that there will be a demand in excess of REP not only in 2026 but also in 2036.
- 2.1.114 These are key priorities to achieve. In 2015 London exported 11.4 million tonnes of waste, with 5.1 million tonnes of that exported to landfill, predominantly to the East of England and South East of England, and approximately 1.3 million tonnes exported to energy recovery facilities on mainland Europe.⁹
- 2.1.115 The Applicant has provided sample waste data to the GLA for its information and this indicates that some materials that could theoretically be recycled, do remain in residual waste. However, it is impracticable and unreasonable to expect this not to occur. Even those waste producers that are very diligent will find that sometimes the, theoretically, recyclable material is contaminated, for example the paper bag is made greasy by food, or the t-shirt is covered in paint. These materials are not readily re-usable or recyclable and may result in a greater environmental burden trying to do so. These materials would otherwise go to landfill, when they could be put to beneficial effect within an ERF such as REP.
- 2.1.116 As is set out in **The PBR (7.2, APP 103, at Paragraph 4.2.8)** Gate Fee Reports prepared by WRAP consistently show gates fees at material recycling facilities and organic waste treatment facilities, to have significantly lower gates fees that at energy from waste and landfill facilities. There is a financial imperative on waste producers and handlers to comply with the waste hierarchy.
- 2.1.117 As previously stated, the ERF at REP will only be able to accept, by virtue of its Environmental Permit, waste that is classed as "*residual*" waste. The Permit will

⁹ Draft London Plan, paragraphs 9.8.1 and 9.8.2.

only allow separately collected recyclable waste at the ERF where that waste is not suitable for recycling. The Applicant has submitted its application for an Environmental Permit on this basis, which is currently being determined by the Environment Agency. Accordingly, NPS EN-1 is satisfied.

2.1.118 In addition, the Environment Agency has granted REP "R1" status, which means that the Environment Agency has assessed REP, and determined that its design meets the definition of "recovery" under the Waste Framework Directive.

2.1.119 There is no policy or legislative requirement for a residual waste management facility development proposal to incorporate pre-treatment operations. As is demonstrated by **Table 6.1** in the **LWSA (Annex A of the PBR (7.2, APP-103))**, recycling in London can be significantly increased, reaching the targets set out in the London Plan and the London Environment Strategy, and there still remains a need for new capacity to treat the remaining wastes and to divert them from disposal to landfill. REP would provide that capacity, operating as one element of the waste management infrastructure required and delivering a range of benefits to London.

2.1.120 At **Paragraph 3.63** of the **GLA's WR**, the GLA conflates the policy statements of NPS EN-3. Properly read it is clear that:

- **Paragraph 2.5.64** simply acknowledges that facilities such as the ERF '*need not disadvantage reuse or recycling initiatives where the proposed development accords with the waste hierarchy*'; whilst
- **Paragraph 2.5.65** advises that the policy expectations are provided in national, local and municipal strategies, that local authorities are responsible for providing an informative framework for the amount of waste management capacity sought and that this might include information on the type of wastes arising and those that are combustible.

2.1.121 Across the **PBR (7.2, APP-103)**, the **LWSA (Annex A of the PBR, (7.2, APP-103))** and the **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)** all of the relevant national, local and municipal strategies have been considered by the Applicant. The **LWSA** makes use of the information provided by the adopted and draft London Plans and the London Environment Strategy.

2.1.122 At **Paragraph 3.68** of the **GLA's WR**, the GLA reiterates its view that there is no requirement for additional energy recovery capacity to manage London's residual waste. The GLA presents no evidence to justify or explain its view. By contrast, the Applicant has submitted a comprehensive assessment following the approach presented at **Paragraphs 2.5.66 to 2.5.69** of **NPS EN-3** and addressing the policy test consequently set out at paragraph 2.5.70. This is presented in the **LWSA (Annex A of the PBR (7.2, APP-103))** which has been undertaken using the data and policy priorities from the adopted London Plan, the draft London Plan and from the London Environment Strategy. It is also remarkable that the GLA considers that the REP site is not a suitable location as there is no demand for the heat, when the

REP site is in a Heat Network Priority Area and the catchment area for heat from REP includes two opportunity areas (Thamesmead and Abbey Wood OA and Bexley Riverside OA). In addition, the GLA's comment contradicts the independent study prepared by Ramboll and annexed to the GLA's WR.

2.1.123 The **LWSA (Annex A of the PBR (7.2, APP-103))** demonstrates that achieving the policy priorities of net-self-sufficiency and 65% recycling requires an additional c. 900,000 tonnes of residual waste treatment capacity (**Table 6.1**, scenarios 2a, 3b, and 4). This is before considering any of the residual wastes arising beyond London that, as discussed below from **Paragraph 2.1.157**, is at least 1.5 million tonnes.

2.1.124 From **Paragraph 3.69** of the **GLA's WR**, the GLA references the Waste Strategy for England 'Our Waste, our Resources: a Strategy for England', published by Defra in December 2018 (the 'Resources and Waste Strategy' or 'RWS'). The **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)** reviews the RWS in some detail and demonstrates that REP is wholly compliant with this most recent national waste strategy.

2.1.125 The reference at **Paragraph 3.70** to the **RWS** annex and a report prepared by Tolvik consulting, is being used to suggest that there is no need for REP and no desire by Government to see new energy recovery capacity. However, such suggestions are misplaced as addressed by Tolvik Consulting themselves in **Appendix A** of the **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)**. Tolvik concludes at **Paragraph 3.16** of **Appendix A** that "*the development [of] at least 5.0mt and potentially up to 8.2MR of additional EfW capacity would more realistically reflect the future requirements and therefore would be consistent with the strategy.*"

2.1.126 It is for this reason, the uncertainty over projections, that NPS EN-1 does not set targets or limits on the energy types covered by the NPS (see **Paragraph 3.3.24**). Rather the NPS makes it clear that the Government "*has other mechanisms to influence the current delivery of a secure, low carbon, affordable electricity mix.*" Indeed, this is emphasised by the RWS and reference to the potential for a tax to be levied on incineration in the future; but this is just one measure that would be considered in the future "*if wider policies don't deliver our waste ambitions...*". It is not decided at this stage, it is just another potential option or tool in the box to be considered at the appropriate time.

2.1.127 The Prime Minister's quote (provided at **Paragraph 3.71** of the **GLA's WR**) makes clear the Government's recognition of the beneficial contribution being made now, and into the future, by energy from waste facilities such as REP. Certainly, Government, and the Applicant, is keen to see recycling rates increase, and REP will "*continue to play an important role in reducing the rubbish sent to landfill ...*".

2.1.128 The Applicant does not agree with the GLA's assertion (at **Paragraph 3.72**) that the cost of incineration '*is a factor in preventing waste moving up the waste hierarchy.*' Firstly, the **LWSA (Annex A of the PBR, (7.2, APP-103))** demonstrates that the ERF will work alongside significantly increased levels of recycling, it will not

prevent waste moving up the waste hierarchy. Secondly, and addressed in more detail from **Paragraph 2.1.164** and **Table 2.6** below, annual reporting by WRAP demonstrates that waste treatment options higher in the waste hierarchy than energy recovery consistently command lower gate fees.

London's waste capacity

2.1.129 At **Paragraph 3.76** of the **GLA's WR**, the GLA refers to its '*waste mass balance projections*' and other modelling which the GLA believes shows that if the Mayor's recycling targets are met there will be no need for additional energy recovery capacity in London. Despite being requested, these models have not been made available to the Applicant; consequently the Applicant is not able to replicate the analysis undertaken by the GLA or to understand fully the assumptions it has used within the modelling undertaken to prepare either the draft London Plan or London Environment Strategy

2.1.130 This is an important information deficit, not least because it is relied upon in drafting development plan policy and the LES, but also because many of the assumptions set out at **Paragraphs 3.76** and **3.77** of the **GLA's WR** are also used within the Applicant's **LWSA (Annex A of the PBR (7.2, APP-103))**, but that comes to a very different conclusion and is readily available for all to see.

2.1.131 **Paragraph 3.76** of the **GLA's WR** sets out the waste arisings and management assumptions that the GLA adopted in its work. The Applicant confirms that it has incorporated each of the GLA's assumptions (presented in italic text) in its own studies (the **LWSA (Annex A of the PBR (7.2, APP-103))**) as set out below (in plain text):

- *waste arisings are matched to the London Plan model (i.e. 5% per capita reduction by 2031);*
 - the LWSA uses the waste arising forecasts set out in the adopted and draft London Plans
- *recycling rates for household waste increase to 42% (2022), 45% (2025), then 50% (2030);*
 - the LWSA considers these recycling rates
- *municipal waste recycling rises to 65% (2030), with 5% of municipal waste being landfilled;*
 - the LWSA incorporates municipal waste recycling rising to 65%
- *includes existing or planned EFW facilities in London managing London's municipal waste (household waste, and commercial and industrial waste similar in nature to household waste); and*
 - the LWSA includes existing and planned EFW facilities in London managing London's municipal waste

- *includes EfW facilities located outside of London contracted to manage London's local authority collected waste (Lakeside and Severnside) estimated at 390,000 tonnes per annum.*
- the LWSA includes EfW facilities located outside of London and contracted to manage London's LACW

2.1.132 **Paragraph 3.77** of the **GLA's WR** states:

- *"In modelling London's EfW capacity, the GLA has accounted for all existing EfW facilities in London, as well as additional capacity at Edmonton (increasing from 550ktpa to 700 ktpa), and a consented increase in inputs to the existing Belvedere site (increasing from 725 to 785 ktpa)":*
- The LWSA includes Edmonton (the North London Heat and Power Project, or NLHPP) at 700,000tpa and Bedmonton (the Riverside Resource Recovery Facility or RRRF) at 785,000tpa.

2.1.133 At **Paragraph 3.79** of the **GLA's WR**, the GLA states:

- *"Notwithstanding this, it is evident that the Applicant's own modelling (employing forecast assumptions which are favourable to the project) fails to support the case for an EfW facility at the scale proposed."*
- In fact, the LWSA relies upon the forecast waste arisings that are set out in the adopted and draft London Plans.

2.1.134 As is explained (at **Section 3.2** and **Section 4.2** of the **LWSA, (Annex A of the PBR (7.2, APP-103))**) the adopted London Plan and draft London Plan waste arisings forecasts account for household waste only, not all local authority collected waste ('LACW'). In 2016/17 London generated more LACW than was forecast in either of the London Plans. Consequently, the **LWSA (Annex A of the PBR (7.2, APP-103))** updates the household waste arisings forecast in the London Plans to reflect the **actual** LACW tonnages that were generated in London in 2016/17.

2.1.135 Further, and with the express intention of avoiding any potential for double-counting, the **LWSA (Annex A of the PBR (7.2, APP-103))** then subtracts the non-household waste arisings recorded in 2016/17 from the C&I¹⁰ waste arisings forecast in the London Plans.

2.1.136 The Applicant makes no other change to the forecast arisings. This is considered to be a conservative approach.

2.1.137 **Paragraph 3.79** of the **GLA's WR** continues:

"The DCO application estimates a need for 272,300 tonnes per annum of additional EfW capacity by 2036, representing less than half of the EfW capacity that the

¹⁰ commercial and industrial

Applicant intends to build (650,000 tpa) in its nominal case and only one third of the capacity proposed in the Applicant's maximum case of 805,920 tpa."

- 2.1.138 However, this comment is focussed on the most extreme outcome of the **LWSA (Annex A of the PBR, (7.2, APP-103))** and actually represents the outcome that does not meet the London Plans' desire of London being net-sufficient. A reasonable approach would be to consider the range of scenarios assessed in the **LWSA (Annex A of the PBR, (7.2, APP-103))**, which consistently demonstrate that in the order of 900,000 tonnes of new, additional residual waste treatment capacity is required within London to meet policy priorities. All the scenarios assessed demonstrate a need for REP. The fact that this is less than 100% only in the scenario whereby London does not achieve net self-sufficiency, continuing to rely on exporting waste, demonstrates the danger of relying on that option. The GLA's focus on a single scenario presents a very real risk of London not having enough capacity to deal with its waste, which would result in the perverse situation of London actually pushing waste down the waste hierarchy and having a worse impact on carbon.
- 2.1.139 At **Table 2**, the GLA presents its analysis of '*Projected EfW requirements for managing London's non-recycled commercial and industrial waste*'. Actually, **Table 2** presents both household and C&I waste tonnages.
- 2.1.140 The second row of **Table 2** presents '*expected household, commercial and industrial waste arisings*'. As can be seen by reference to **Table 4.1** of the **LWSA (Annex A of the PBR (7.2, APP-103))**, these tonnages are the total household and C&I waste tonnages forecast in the evidence base to the draft London Plan to arise in years 2031 and 2036. These tonnages do not include all LACW, and they do not reflect actual waste arisings as recorded in 2016/17.
- 2.1.141 The sixth row presents '*Waste assumed to EfW (tonnes)*'. Those presented as Cory projections are correctly repeated from **Table 4.1** of the **LWSA (Annex A of the PBR (7.2, APP-103))** (row m). Those presented as the GLA projections are not as clear. These tonnages do not appear in either of the adopted London Plan, the draft London Plan or the London Environment Strategy, or any of the respective evidence base documents.
- 2.1.142 **Paragraph 3.81** of the **GLA WR** and **Table 3** seek to explain how the discrepancy in tonnages assumed for energy recovery occurs and refer to an assumption by the GLA that 80% of C&I waste is suitable for treatment in facilities such as the ERF. The Applicant has applied the assumptions set out in the GLA WR and cannot replicate the figures presented as the GLA projections in Table 2.
- 2.1.143 Just as in the **LWSA (Annex A of the PBR (7.2, APP-103))**, the Applicant has turned to the relevant evidence base document for the draft London Plan (from which the arisings figures are taken) - **Appendix A** to the document reporting Task 3 – Strategic Waste Data¹¹ (the Task 3 Report). **Tables A1** and **A3** of the **Task 3**

¹¹ London Plan Waste Forecasts and Apportionment, Task 3 – Strategic Waste Data, SLR, May 2017. https://www.london.gov.uk/sites/default/files/task_3_-_strategic_waste_data.pdf [24.05.2019@11:52]

Report present the forecast tonnages and management route for household waste and C&I waste respectively, for inter alia years 2031 and 2036.

- For year 2031, 1,339 thousand tonnes (kt) of household waste and 1,506kt of C&I waste (a total of 2,845 kt) is presented as being managed by '*incineration/other treatment*'.
- For year 2036, 1,381kt of household waste and 1,529 tonnes of C&I waste (a total of 2,910kt) is presented as being managed by '*incineration/other treatment*'.

2.1.144 The figures presented in the **Appendix A** of the Task 3 Report match those presented by the Applicant in the **LWSA (Annex A of the PBR (7.2, APP-103))**, because **Appendix A** of the **Task 3 Report** is the source point for the forecast tonnages presented in **Table 4.1** of the **LWSA (Annex A of the PBR (7.2, APP-103))**. The **LWSA (Annex A of the PBR (7.2, APP-103))** relies upon the base information from both the adopted and draft London Plans.

2.1.145 The evidence base for the London Environment Strategy is set out at **Appendix 2** of that document ("LES Appendix 2"). On **Pages 101** and **102**, the **LES Appendix 2** presents 3 scenarios considered by the GLA to forecast future infrastructure needs. The level of need for new energy recovery capacity ranges from -153,000 tonnes (scenario 1) to 971,000 tonnes (scenario 3).

2.1.146 **Paragraph 3.81** of the **GLA's WR** is correct to say that the Applicant considers 100% of C&I waste to be combustible, and it would be correct to say that not all will be suitable for the ERF. However, the precise details of the composition of the waste is neither relevant nor important. What is relevant and important, and is the test set in NPS EN-3, is consideration '*with reference to the relevant waste strategies and plans, that the proposed waste combustion generating station is in accordance with the waste hierarchy and of appropriate type and scale so as not to prejudice the achievement of local or national waste management targets ...*'. The **LWSA (Annex A of the PBR (7.2, APP-103))** considers recycling rates in the C&I waste stream up to 80%, accompanied by the Mayor's aspiration to achieve 50% recycling of household waste (see **Table 4.5** in **LWSA (Annex A of the PBR (7.2, APP-103))**). There still remains a need for REP.

2.1.147 At **Paragraph 3.83**, the GLA references Tolvik Consulting Ltd and its October 2018 report titled '*Residual Waste in London and the South East: Where is it going to go?*' (the 'Tolvik Report'). **Chart 2** of the **GLA WR** is a reproduction of Figure 12 from the Tolvik Report, '*Residual Waste to Landfill in London and the South East*'. Figure 12 is concerned with the amount of waste that might be disposed of to landfill, it does not comment on the requirement for waste management capacity.

2.1.148 The GLA aligns itself with '*the low tonnage case*' presented in **Chart 2**, but fails to recognise that the Tolvik Report considers this scenario to be for the 'optimist' (second bullet on page 23 of the Tolvik Report); the Central scenario predicts '*that by 2025 there could be a cumulative shortfall of 4.66 [million tonnes] in Non-*

Hazardous Landfill capacity across London and the South East.' (first bullet on **Page 23**).

2.1.149 The final bullet of the Tolvik Report (on page 24) considers the option of developing additional energy recovery capacity:

“Consider, for example, if there was a “zero landfill” policy across London and the South East in which no Residual Waste is to be landfilled by 2025 (similar to the current Greater London Authority’s policy of working towards not sending any biodegradable waste to landfill by 2026). In the Central scenario 4.7 [million tonnes] of EfW capacity over and above that current operational in London and the South East would need to be available. Whilst some of this capacity could potentially continue to be met by RDF export to Europe, any shortfall would need to be through the construction of new EfWs in London and the South East. The modelling in the Low Tonnage scenario assumes a maximum of 2.06 [million tonnes] of “Additional” EfW capacity by 2025 – less than half that required for a “zero landfill” scenario – putting into context [the] deliverability of such a solution.”

2.1.150 A closer reading of the Tolvik Report indicates to the reader that it concludes additional residual waste treatment capacity is required in London and the South East.

2.1.151 At **Paragraph 3.84**, the GLA introduces two other reports: Tolvik Consulting Ltd, ‘UK Residual Waste: 2030 Market Review’, November 2017¹²; and CIWM, ‘CIWM Presidential Report 2018, RDF Trading in a Modern World’, 2018. Chart 3 then compares some of the results from the two reports by Tolvik and that of CIWM, with some of the analysis undertaken for the London Environment Strategy. **Chart 3** does not present all of the scenarios considered within the documents referenced and fails to be clear about which scenario are presented.

2.1.152 However, each bar of the chart is considered here:

- The first bar is attributed to the London Environment Strategy. The Applicant has made clear, both in this response and elsewhere, not least the **PBR (7.2, APP-103)**, both that the modelling undertaken for the London Environment Strategy has not been provided and that the results cannot be replicated. Instead, the **LWSA (Annex A of the PBR (7.2, APP-103))** uses the forecast arisings of the adopted and draft London Plans, and applies policy of both those documents and the London Environment Strategy and demonstrates that a consistent demand for c.900,000 tonnes of residual waste treatment capacity remains.
- The second bar is attributed to the Tolvik report ‘UK Residual Waste: 2030 Market Review’. This report was considered in the **PBR** (at **Section 5.1, (7.2, APP-103)**). **Paragraph 5.1.3** makes clear that *UK Residual Waste: 2030 Market*

¹² The GLA WR does not directly reference this report. Footnote 19 refers to ‘ESA Residual Waste Capacity Gap Analysis’ and is hyperlinked to an internal sharepoint system that is not accessible to the Applicant. From other references within the GLA WR, the Applicant has consequently assumed it is meant to refer to Tolvik’s report titled ‘UK Residual Waste: 2030 Market Review’, dated November 2017, which was prepared for the ESA (Environmental Services Association).

Review presents a wide range of waste arisings forecasts (from 15.9 million tonnes to 31.7 million tonnes) demonstrating the level of uncertainty across this topic. Further, *'that not all of the scenarios within the reports are necessarily regarded by report authors as a likely outcome; some scenarios have been developed specifically to illustrate the effects of changing assumptions and/or for the purpose of sensitivity testing.'* (UK Residual Waste: 2030 Market Review, **Section 4.1, Page 17**). **Paragraph 5.1.4** of the **PBR (7.2, APP-103)**, also confirms that *'despite assuming high levels of recycling, and substantially greater than are currently achieved in London, there generally remains a future forecast need for substantial new residual waste treatment capacity. A potential future surplus of capacity is only achieved when: very high recycling rates are assumed; all potential future capacity is included, even when it is not yet operational; and it is assumed that the UK will still be exporting 2.5 Mt to mainland Europe for treatment.'*

- The third bar of **Chart 3** is attributed to the Tolvik Report already considered above (at **Paragraphs 2.1.147 to 2.1.149** of this response). Clearly, the Tolvik Report identifies a much greater demand for new residual waste treatment capacity than is presented by the GLA in **Chart 3**.

2.1.153 The fourth bar is attributed to *CIWM Presidential Report 2018, RDF Trading in a Modern World*. This bar indicates that just short of 400,000 tonnes of RDF would be created, requiring a final destination. RDF (Refuse Derived Fuel) is waste that has been through extensive treatment, potentially so that it can be reclassified as not a waste. It is assumed that this level of treatment would satisfy the GLA's understanding of waste that would be suitable for energy recovery. **Chart 3** shows just under 400,000 tonnes of RDF requiring a final destination. If this material were to be combusted in the UK, then the UK would benefit, not least from the renewable/low carbon energy generated. The ERF within REP would be an entirely appropriate installation for this material, approximately 60% of the nominal throughput before any other residual wastes are considered.

2.1.154 **Chart 3** is, generally, a misrepresentation of the reasonable conclusions reached by the documents referenced by the GLA. The exception being in relation to the London Environment Strategy, which makes the conclusion presented in the first bar, but is not explained or justified.

2.1.155 At **Paragraph 3.85**, the GLA suggests that *'the Applicant will attempt to satisfy feedstock requirement via import of waste from areas outside Greater London.'* The **PBR (7.2, APP-103)** addresses this potential, not least at **Section 4.3**. There is no reasonable objection to the import of waste to the ERF from outside of London.

2.1.156 **Table 4** of the **GLA's WR** presents a summary of additional EfW capacity need identified in Waste Local Plans. The **PBR (7.2, APP-103)**, through the **LWSA (Annex A of the PBR (7.2, APP-103))**, also considers the range of residual wastes available in nearby authorities, **Appendix A** of the **LWSA (Annex A of the PBR (7.2, APP-103))** shows nearly 2 million tonnes. The sources of both the GLA's table

data and that in the LWSA **Appendix A** have been reviewed and compared, this is presented in **Appendix B** of this response.

2.1.157 **Appendix B** of this response shows that, again, the GLA has focussed on the lower end of future need estimates as forecast by the authorities reported in the GLA's **Table 4**. Further, the Applicant is familiar with some of the forecasts presented and has substantial concerns with them, which have been raised through the appropriate channels. The data presented in **Appendix A** to the **LWSA (Annex A of the PBR (7.2, APP-103))** has also been reviewed, as some of the relevant data sources have been updated. In short, the Applicant considers that there remains in the order of 1.5 million tonnes of residual wastes in nearby local authorities that should be moved up the waste hierarchy and diverted from landfill.

Consequences of over capacity

2.1.158 **Paragraph 3.88** of the **GLA WR** states '*approving the proposed ERF would leave London with a stranded asset that either would have to compete with other waste streams that could be managed further up the waste hierarchy (such as recycling), or would have to draw in waste from outside of London. Both of these alternatives are considered to be unsustainable, especially if the movement of waste to the ERF is long distance and does not use river transport.*'

2.1.159 This assertion has been made without justification or relevant evidence. The **LWSA (Annex A of the PBR (7.2, APP-103))** demonstrates clearly the level of need for new residual waste management infrastructure within London, even when increased recycling is assumed to be achieved. The overarching conclusion of the **LWSA**, that new residual waste treatment capacity is required, is supported by national and regional studies undertaken by Tolvik Consulting and the CIWM, both of whom are independent to the Applicant. The **PBR (7.2, APP-103)** makes clear that, in the event that a reduced level of need for the ERF is the outcome, there is no reasonable objection to bringing wastes to REP and London can benefit from the private investment not least through the increase in supply and diversity of energy, through the creation of additional jobs, and through the supply of heat.

2.1.160 REP makes optimal use of a site already successfully in use for waste management, providing complementary technologies to recover renewable/low carbon energy. There is viable and substantial local heat demand, including from social housing. The waste management and heat demands, and the ability to use river transport make the REP site an important asset for waste management and one that should be utilised, not only for the benefit of London but also the surrounding areas.

2.1.161 At **Paragraph 3.89**, the GLA WR references '*a review of performance data*' for the year 2017/18. The Applicant does not know which review the GLA is referring to and the GLA WR provides no primary data for its summary of this review. In any event, relying upon data for just one year does not demonstrate a general trend; for this it would be necessary to consider a number of years.

2.1.162 In its Relevant Representation, UKWIN made a similar assertion. **Paragraph 4.4.34** of the **Applicant Responses to Relevant Representations (8.02.03, REP2-054)** makes clear that the Applicant considers that the evidence (reproduced in **Table 2.5** below) demonstrates that energy recovery and recycling work well together. The Defra data (set out in **Table 2.5**) shows that in 2015/16, the use of energy from waste and recycling in 2015/16 is not as disparate as is suggested by the GLA. Further, the Defra data demonstrates that a balance is being found by each London Borough: for LB Bexley and Kingston Upon Thames, recycling has slightly increased with a slight decrease seen in incineration; LB Croydon has seen a 7% increase in incineration, with a 3% decrease in recycling; whilst in LB Bromley both incineration and recycling have increased slightly. It cannot be said that in 2017/18 recycling has significantly increased across all Boroughs, with a corresponding decrease in waste combustion. REP is proposed to replace landfill not recycling.

2.1.163 This demonstrates that energy from waste does not limit recycling, even when an authority has a high reliance on waste combustion, it can, and demonstrably does, increase recycling. These two technologies work alongside each other to take waste out of landfill. The increase in recycling will result in a decrease in the use of energy from waste, this is almost inevitable as there is only 100% of waste. However, as the **LWSA (Annex A of the PBR (7.2, APP-103))** shows, even when a significant increase in recycling across all of London's waste is delivered, there still remains a need for new energy from waste capacity; the Proposed Development is appropriately sized and plays a key role alongside recycling.

Table 2.5: Local Authority Collected Waste incineration and recycling rates across four London boroughs, 2017/18 (an update of the table in UKWIN RR at paragraph 80)

Source	UK WIN Response		Defra		Defra	
Year	2015/16		2015/16		2017/18	
Authority	Incineration (per cent)	Recycling (per cent)	Incineration (per cent)	Recycling (per cent)	Incineration (per cent)	Recycling (per cent)
LB Bexley	82.43	15.51	52.63	47.10	52.24	47.57
LB Bromley	74.36	21.25	32.76	39.15	35.11	42.52
LB Croydon	80.27	19.08	2.06	41.01	9.36	37.96
LB Kingston Upon Thames	82.74	16.60	32.58	47.76	34.82	49.74

2.1.164 The GLA WR provides no evidence to substantiate the statement at **Paragraph 3.91** that *'excess EfW capacity is expected to result in an overly competitive market that would reduce prices for incineration ... and undermine the Mayor's policies for*

moving towards a circular economy.' **Section 4.2** of the **PBR (7.2, APP 103)** considers how REP delivers the waste hierarchy, first considering this achievement in principle. **Paragraph 4.2.8** of the **PBR (7.2, APP 103)**, references a series of Gate Fee Reports prepared by WRAP, which consistently show gates fees at material recycling facilities and organic waste treatment facilities, which are preferred in the waste hierarchy, to have significantly lower gates fees that at energy from waste and landfill facilities. The price differential across the waste management methods has been seen repeatedly in WRAP's annual reporting.

2.1.165 Further, the GLA fails to recognise REP's contribution to delivering the circular economy within London. The ERF will recover more than just energy, but also secondary aggregate (from the incinerator bottom ash), glass and metal. In addition, the APCR (air pollution control residue, the fine powder that remains following the cleaning of the gases from energy recovery facilities) will be recycled, through the same or a similar new process to that which has been developed by the firm Carbon8. Specifically using APCR from energy recovery facilities, such as the REP ERF, Carbon8 Aggregates produces carbon-negative materials for construction. This means that materials recovery will happen efficiently alongside energy recovery, both contributing to overall recycling targets, sustainable waste and resource management, and delivery of the circular economy.

Table 2.6 Summary of median gate fees for waste management options, WRAP reporting, 2011 to 2018 (£ per tonne)

Facility type	2011	2012	2013	2014	2015	2016	2017	2018
Materials Recovery Facility	15	9	9	n/a	6	25	15	22
Open Air Windrow Compost	24	25	24	n/a	24	24	n/r	n/r
In-Vessel Compost	43	44	46	n/a	46	47	46	49
Anaerobic Digestion	43	41	41	n/a	40	40	29	26
Mechanical Biological Treatment	84	79	76	n/a	88	85	88	n/r
Energy from Waste (pre-2000)	54	64	58	n/a	73	58	56	57
Energy from Waste (post-2000)	73	82	90	n/a	99	95	91	89
Landfill (gate fee only)	20	21	21	n/a	20	19	22	20
Landfill (gate fee and Landfill Tax)	76	85	93	n/a	100	102	107	107

Source: WRAP, Gate Fee Reports. All available (apart from 2014) on WRAP website:
<http://www.wrap.org.uk/collections-and-reprocessing/recovered-materials-markets/reports/gate-fee-reports>

Absence of pre-treatment

- 2.1.166 The Proposed Development does not incorporate a pre-treatment facility. There is no policy or legislative requirement to do so and there is no evidence to support the GLA's assertion (**Paragraph 3.93**) that "*the best opportunities for pre-treatment to be developed will come from it being included within new treatment capacity.*"
- 2.1.167 The **LWSA (Annex A of the PBR (7.2, APP-103))** demonstrates that the ERF will work alongside significantly increased rates of recycling. Further, the **Carbon Assessment (8.02.08, REP2-059)** and the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** submitted at Deadline 2, demonstrate that REP achieves the required value for the CIF when the ERF is operating in electricity only mode, confirming that the Proposed Development complies with relevant London Plan policy.
- 2.1.168 As previously stated, the ERF at REP will only be able to accept, by virtue of its Environmental Permit, waste that is classed as "*residual*" waste. The Permit will only allow recyclable waste at the ERF where that waste is unsuitable for recycling. The Applicant has submitted its application for an Environmental Permit on this basis, which is currently being determined by the Environment Agency. Accordingly, NPS EN-1 is satisfied.

Summary

- 2.1.169 Contrary to **Paragraph 3.94** of the **GLA WR**, the **LWSA (Annex A of the PBR (7.2, APP-103))** demonstrates a need for REP in all scenarios. A number of scenarios are considered, all of which are reliant on the data contained in the adopted and draft London Plans and the London Environment Strategy. By contrast, the GLA has not produced any evidence to substantiate its assertion that no new energy recovery infrastructure is required in London; the position set out in this WR does not align with the evidence base prepared for the draft London Plan.
- 2.1.170 The **LWSA (Annex A of the PBR (7.2, APP-103))** demonstrates that REP will not disadvantage recycling in London and that it is a very necessary part of the infrastructure required to achieve the waste management, energy supply and circular economy priorities set out in the relevant strategies and plans.

Waste Transfer Impacts (WR5)

Assessment of Environmental Effects & Waste Transfer Station Capacity

- 2.1.171 The Applicant welcomes the confirmation from Transport for London (TfL) that they consider the operational traffic impact of REP are unlikely to result in detrimental impacts on the Strategic Road Network (SRN) under all scenarios assessed within **Chapter 6 Transport** of the **ES (6.1, REP2-017)** and **Appendix B.1, the Transport Assessment** to the **ES (6.3, APP-066)**.

- 2.1.172 In **Paragraph 3.96** of the **GLA's WR**, the GLA states that TfL has not considered the effects of waste feedstock deliveries to the riparian Waste Transfer Stations and goes on, in **Paragraphs 3.97** and **3.104** of its **WR**, to assert that the environmental and traffic effects associated with the transport of waste to the riparian WTS has not been assessed within the EIA. This has never been raised with the Applicant in any meetings with the GLA or TfL.
- 2.1.173 The Applicant disputes that it should assess how waste is transferred to consented waste transfer stations.
- 2.1.174 Rather the correct approach, and that agreed with LBB as Highway Authority and TfL in the scope of the Transport Assessment is set out in **Table 6.6** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)**, is for the Applicant to assess transport movements from the likely sources of waste to REP. That is exactly what the Applicant has done. In the 100% by road scenario, the Applicant makes reasonable worst-case assumptions and considers the transfer of waste to REP from the riparian Waste Transfer Stations at Smugglers Way, Cringle Dock, Walbrook Wharf, Northumberland Wharf and the Port of Tilbury. A 100% by river scenario has also been assessed. No significant effects were identified. The 25% by road assumes that waste material not transported by river to the ERF is delivered to REP directly from contracts across London, Kent and Essex. The distribution of those origins is set out at **Plate 6.2** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)**.
- 2.1.175 The riparian Waste Transfer Stations listed above have existing planning and Environmental Permit consents, with sufficient capacity to accept the waste required by REP. These consents have in turn already considered the environmental and traffic impacts associated with the delivery of waste material to these facilities irrespective of the destination of that material. In a world without REP, there is nothing stopping these Waste Transfer Stations from filling that spare capacity and sending it to another facility. The waste is already travelling to these facilities. It is therefore not appropriate or necessary for the Applicant to assess waste travelling from its source to the Waste Transfer Station. Instead, the Applicant's duty under the Environmental Impact Assessment Regulations is to make likely assumptions on how the waste is to travel to the REP site, as the Applicant has done.

Commitment to River Transport

- 2.1.176 **Paragraphs 3.97** and **3.100** within the **GLA's WR** states that *'the Applicant should provide commitments with regard to using river transportation of waste feedstock and by-product' and that 'in the absence of any commitment to the majority of waste feedstock being transported by river is considered to be sufficient justification for the application to be refused.'*
- 2.1.177 The Applicant intends to use the river and its existing infrastructure and fleet of barges to operate REP. London Plan Policy 7.26 and Draft London Plan Policy SI15 both promote the use of waterways for transporting bulk materials via waterways. The Applicant has a proven track record within the riparian waste environment, established river infrastructure and expertise in river logistics.

- 2.1.178 The updated **dDCO (3.1; Rev 2)** submitted at Deadline 3, includes **Requirement 14** in **Schedule 2**, which restricts the number of vehicle movements made by heavy commercial vehicles delivering waste to the ERF and Anaerobic Digester during the operational period, to a maximum of 90 vehicles in and 90 vehicles out per day, save in circumstances where there is a jetty outage. This Requirement will ensure that waste will predominantly be transported to the ERF via river in line with the Applicant's expectation.
- 2.1.179 **Requirement 14 (5)** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3, also provides a commitment to: *'save where there is a jetty outage, incinerator bottom ash must only be removed via river.'*

Air Quality (WR6)

- 2.1.180 In response to **Paragraphs 3.108- 3.110** of the **GLA's WR**, the Applicant considers that the evidence in **Chapter 7 Air Quality** of **ES (6.1, REP2-019)** demonstrates that a robust assessment of the potential effects to air quality from the Proposed Development has been undertaken. Further to the information provided within the ES, the Applicant's response to ExAQ2.10.1, submitted in the **Applicant Responses to EXA First Written Questions (8.02.04, REP2-055)** submitted at Deadline 2 provides information on how different levels of impacts at different receptors have been judged in relation to the overall effect. The Applicant maintains that the assessment conclusions of No Significant effects are correct.

Basis of the Assessment

- 2.1.181 The assessment reported in **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** adopts a worst case approach as identified in **Section 7.4** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**. The 14.3 g/s emissions of NO_x from the ERF in **Table 7.17** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** are the total emissions from the stack assuming that it operates at 100% of capacity all year round with an emission concentration of 120mg/m³. As noted in the **Environmental Permit and Air Quality Note (8.02.06, REP2-057)** submitted at Deadline 2, the Environmental Permit has been applied for on the basis of NO_x emission limit of 75 mg/Nm³. The actual NO_x emission rate from the ERF will therefore be 8.94 g/s and the actual emission rate will in fact be approximately 37% lower than modelled in the DCO Application.
- 2.1.182 The Applicant does not agree with the statement with **Paragraph 3.112** of the GLA's WR which states "*it is evident that the ERF would emit over 4 times as much nitrogen oxide as currently emitted by RRRF and Crossness Sewage Sludge Incineration (CSSI) combined*". Emissions of NO_x from RRRF and CSSI are reported in **Table C.2.1.2** of **ES Appendix C.2 Stack Modelling (6.3, REP2-038)** submitted at Deadline 2 and are 21.4 g/s and 3.2 g/s respectively. Emissions of NO_x from REP will therefore be approximately 36% of those from RRRF and Crossness Sewage Sludge Incinerator combined, rather than 4 times as much as stated in the respondent's written representation. For the other pollutants, whilst emissions will increase, as reported in **Paragraph 7.13.2** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** the assessment considers the combined effect of

emissions and effects are reported as Not Significant in accordance with the assessment criteria.

Conflict with National Policy

- 2.1.183 The Applicant does not agree with the statement made in Paragraph 3.115 of GLA's WR. The modelling results in **Table C.2.2.9** of **Appendix C.2 Stack Modelling** to the **ES (6.3, REP2-038)** show no exceedances of the annual mean NO₂ objective or EU Limit Value of 40µg/m³. The maximum Predicted Environmental Concentrations (PEC) is 81.3% based on NO_x emissions of 120mg/Nm³ from the ERF and therefore legal limits will not be exceeded nor compliance delayed. As stated above, actual emissions will be 75mg/Nm³ per the Environmental Permit application and therefore the maximum Predicted Environmental Contribution (PEC) will be lower than this.
- 2.1.184 The Applicant does not agree with the statement made in **Paragraph 3.116** of the **GLA's WR**. The assessment of significance of the increases in pollutant concentrations is in accordance with the Institute of Air Quality Management (IAQM) criteria as outlined in **Paragraphs 7.5.56, and 7.5.60 to 7.5.62** of the **ES (6.1, REP2-019)**. The response to **ExAQ2.10.1**, presented in the **Applicant Responses to ExA First Written Questions (8.02.04, REP2-055)** submitted at Deadline 2 provides information on how different levels of impacts at different receptors have been judged in relation to the overall effect. In accordance with the stated assessment criteria, effects are reported as Not Significant.
- 2.1.185 In **Paragraph 3.118** of the **GLA's WR**, the GLA raise a concern regarding the potential for the DCO to be approved based on incorrect information relating to EU BREF Limits. As reported in **Table 3.1** of the **Environmental Permit and Air Quality Note (8.02.06, REP2-057)** submitted at Deadline 2, the Environmental Permit application has been made on the basis of the emission limits equal to or lower than in the DCO application. Accordingly, should the Permit be granted, it will contain those emissions limits as conditions to the Permit which will be monitored and enforced by the Environment Agency.
- 2.1.186 The Applicant does not agree with the statement made in **Paragraph 3.119** of respondent's **WR**. The response to **ExAQ2.10.1** presented in the **Applicant Responses to ExA First Written Questions (8.02.04, REP2-055)** submitted at Deadline 2 provides information on how different levels of impacts at different receptors are judged in relation to the overall effect. The assessment within the ES does not dismiss the changes in pollutant concentrations; rather, the assessment of significance is undertaken in accordance with the IAQM guidance (as stated in **Paragraphs 7.5.56, and 7.5.60 to 7.5.62** of **Chapter 7 Air Quality** the **ES (6.1, REP2-019)**) where the increase in concentration is put into context with the background concentrations and the level of significance determined.
- 2.1.187 For arsenic, the two receptor locations with predicted minor impacts are not residential areas, therefore these locations are not representative for relevant exposure for annual mean impacts. All of the predicted impacts at relevant receptor

locations, in accordance with the stated assessment criteria, are therefore Negligible which are Not Significant.

- 2.1.188 In the case of nickel, whilst there are minor impacts at a number of receptors and as set out in **Paragraph 7.9.30 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** none of the PECs are above the assessment level for health effects and therefore overall, the effect is judged to be Not Significant. Furthermore, Public Health England's (PHE) Relevant Representation (RR-067) confirmed they are satisfied with the methodology used to undertake the assessment (see **the Applicants Response to Relevant Representations (8.02.03)**) The Applicant has summarized recent research commissioned by PHE in the **Post Hearing Note on Public Health and Evidence (8.02.027)** submitted at Deadline 3.
- 2.1.189 **Paragraph 2.5.42 of NPS EN-3** states that *"The pollutants of concern arising from the combustion of waste and biomass include NO_x SO_x, particulates and CO₂. In addition emissions of heavy metals, dioxins and furans are a consideration for waste combustion generating but limited by the WID and regulated by the EA."*
- 2.1.190 **Paragraph 2.5.43** goes on to state that *"Where a proposed waste combustion generating station meets the requirements of the WID and will not exceed the local air quality standards, the [Secretary of State] should not regard the proposed waste generating station as having adverse impacts on health."*
- 2.1.191 ERF will go beyond the requirements of WID (now incorporated into the Industrial Emissions Directive), as it will meet the requirements of the draft BREF which introduces tighter emission limit values and the proposed emission limit for NO_x is even lower than required by the draft BREF. There are no exceedances of local air quality standards for NO₂, SO₂ and particulates. Therefore, pursuant to the NPS, REP should be regarded as not having an impact on health.
- 2.1.192 Regarding **Paragraph 5.2.9 of NPS EN-1**, REP will not lead to a deterioration in air quality in the area, will not lead to air quality breaches and will not have any substantial changes to air quality levels, this is all demonstrated by the Applicant's assessment contained in **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**.
- 2.1.193 The NPS does not state what a substantial change in an air quality level is, but it would be inconsistent with the first sentence of the policy statement if a substantial change was not somehow related to the total pollutant concentration and how that compared to environmental assessment levels. This is the approach of the IAQM assessment methodology as shown in **Table 7.21 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** where larger changes in air quality levels are judged to be more significant when they combine with high overall pollutant levels. As the ES assessment is in accordance with the IAQM guidance, it is therefore consistent with the requirements of the NPS.

Outcomes of Assessment

- 2.1.194 With regards to **Paragraph 3.120** regarding assumed receptor points, the predicted annual mean NO₂ concentrations at R24 and R25 with the Proposed

Development operational are $29.8\mu\text{g}/\text{m}^3$ and $30.8\mu\text{g}/\text{m}^3$, with the predicted development impact at both locations being less than $0.2\mu\text{g}/\text{m}^3$ (**Table C.1.6.2 of Appendix C.1 Traffic Modelling (6.3, REP2-036)**). The total predicted concentrations are therefore approximately 9 to $10\mu\text{g}/\text{m}^3$ below the assessment level in the scenario of 100% by road, with the Proposed Development giving rise to imperceptible changes in annual mean concentration. With a cap on HGV movements, the actual impact at the receptors will be lower than that assessed. The quoted receptor to the east of the A206 at the junction with Watts Way is approximately 5m from the south-bound carriageway and approximately 20m from the north-bound carriageway. This receptor location is therefore a similar distance from the A206 as R24. Whilst receptor location referenced in the respondent's response may experience higher pollutant concentrations due to its proximity to the junction, it is highly unlikely that the Proposed Development would lead to a breach of the objective at this location or that a significant effect would result. On this basis, the Applicant considers that the Proposed Development is in accordance with the London Plan.

2.1.195 In response to **Paragraph 3.121**, as shown in **Table 7.34 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**, whilst the maximum predicted ground level annual mean NO_2 concentration is potentially significant in relation to the assessment criteria, the maximum predicted short-term NO_2 concentrations are not. This relationship will generally hold with increasing height, with the annual mean NO_2 objective being the objective more difficult to meet. Whilst the impact of emissions from the stack will increase with height, the baseline concentrations also reduce as one moves away from ground level pollution sources such as roads. As an illustration of the increase in pollutant concentrations with height, **Table C.2.2.9 of Appendix C.2 Stack Modelling (6.3, REP2-038)** shows how the impact of emissions from the ERF changes with height at Receptors R18, R19 and R20.

2.1.196 For R18 the difference in predicted annual mean NO_2 concentrations between 1st and 4th floor level is $0.001\mu\text{g}/\text{m}^3$; for R19 the increase between 1st and 6th floor level is $0.006\mu\text{g}/\text{m}^3$ and for R20, the increase between ground floor and 5th floor is $0.001\mu\text{g}/\text{m}^3$. This level of change is less than the reduction in baseline concentrations from reducing traffic impacts which is $1.64\mu\text{g}/\text{m}^3$, $3.35\mu\text{g}/\text{m}^3$ and $1.73\mu\text{g}/\text{m}^3$ respectively. It is therefore unlikely that the ERF will impact upon potential new buildings in these areas and it therefore does not conflict with draft London Plan Policy SD1.

2.1.197 The Applicant does not agree with the statement made in Paragraph 3.122 of the GLA's WR. The modelling results in **Table C.2.2.9 of Appendix C.2 Stack Modelling (6.3, REP2-038)** show no exceedances of the annual mean NO_2 objective or EU Limit Value of $40\mu\text{g}/\text{m}^3$. The maximum PEC is 81.3% based on NO_x emissions of $120\text{mg}/\text{Nm}^3$ from the ERF. There are therefore no exceedances of AQMA limits for NO_2 in Rainham town centre and REP will not delay compliance with AQMA limits in Havering. As stated above, actual emissions will be $75\text{mg}/\text{Nm}^3$ per the Environmental Permit application and therefore the maximum PEC will be lower than this.

- 2.1.198 **Paragraph 3.123** of the **GLA's WR** relates to potential impacts at ecological sites. The assessment criteria for considering impacts on terrestrial biodiversity receptors is set out in **Paragraphs 7.5.63 to 7.5.65** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**. Where the thresholds for considering the changes in pollutant concentrations or deposition rates set out in these paragraphs are exceeded within the SSSIs, it is an indication that there is a potential for significant effects to occur, not that they have occurred. Further ecological assessment is therefore required, which is undertaken in **Paragraphs 11.9.21 to 11.9.32** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**
- 2.1.199 The response to **ExAQ2.11.1** presented in the **Applicant Responses to ExA First Written Questions (8.02.04, REP2-055)** submitted at Deadline 2 provides information on the significance of the predicted increase in NO_x concentrations on the Inner Thames Marshes/Rainham Marshes SSSI and Ingrebourne Marshes SSSI where it is confirmed that the effect is not significant. The assessment and its conclusions have been agreed with Natural England through a **Statement of Common Ground (SOCG)** submitted at Deadline 2 (**8.01.05, REP2-051**).
- 2.1.200 The Applicant does not agree with the concluding statements made in **Paragraph 3.124** of the **GLA's WR**. Assessments reported in **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** assess the impact of emissions from the ERF against health based assessment levels and no likely significant effects are predicted.
- 2.1.201 Furthermore, Public Health England's (PHE) Relevant Representation (RR-067) confirmed they are satisfied with the methodology used to undertake the assessment (see **the Applicants Response to Relevant Representations (8.02.03)**). The Applicant has summarized recent research commissioned by PHE in the **Post Hearing Note on Public Health and Evidence (8.02.027)** submitted at Deadline 3.

Construction Traffic (WR7)

- 2.1.202 The concerns raised, in relation to construction in the GLA's WR, have been prepared jointly by the GLA and Transport for London (TfL).

Construction Worker Traffic and Construction Delivery Traffic Impacts

Assessment of junction capacity

- 2.1.203 **Paragraph 3.126** of the **GLA WR** states that *"TfL considers the junction modelling contained within the ES to not be fully representative of the real capacities of the junctions assessed, as it is considered that the junctions are influenced by each other's performance given that they are closely linked"*.
- 2.1.204 The Applicant does not dispute that the "performance" of the junctions of A206 / James Watt Way and A206 / Bexley Road (Erith Roundabout) are influenced by each other. TfL has claimed, in meetings with the Applicant, that those junctions also influence and are influenced by the junctions on Picardy Manorway. The Applicant does not agree that the performance of those junctions influences the

junctions at Picardy Manorway. **Paragraphs 6.4.1 to 6.4.7 and Table 6.4** of the **Transport Assessment, Appendix B.1** to the **ES (6.3, APP-066)** set out the percentage impact of traffic at junctions within the local road network. The extent of the network to be assessed was agreed with LBB and TfL at the scoping stage. As the percentage impact of the temporary peak construction traffic is predicted to be below 5% of the junction total flow, no assessment of “capacity” performance at the junctions is required. The predicted impact during the peak period of construction is low, of a temporary nature and at a level which is typically within daily fluctuations in road traffic volumes; no significant effects on the operation of the road network are therefore envisaged. It is considered that sufficient and appropriate evidence has been provided to the Examining Authority to demonstrate that the effects on the road network of the temporary peak construction period would be Not Significant, as presented in **Chapter 6 Transport** of the **ES (6.1, REP2-017)**.

Workforce travel assessment (construction phase)

2.1.205 At **Paragraph 3.127** of the **GLA's WR**, the potential impacts from construction traffic generated by the REP site are stated as “...likely to cause significant disruption to the junctions on the Strategic Road Network”.

2.1.206 In response to TfL's concerns relating to the operation of the network at this location, it is proposed to limit the number of on-site parking spaces at the Main Temporary Construction Compound on Norman Road to a maximum of 275 spaces. This represents a 50% reduction from the 552 spaces assumed in the transport assessment (see **Paragraph 6.4.6** of **Chapter 6, Transport** of the **ES (6.1, REP2-017)**). This measure would significantly reduce the predicted quantum of car and/or van-based movements to the REP site during peak construction. This element is discussed in further detail below.

2.1.207 In addition, the workforce travel assessment presented in the TA is based on a reasonable worst case for a working weekday between 08:00 and 18:00, based on the assumption that commuting to the site coincides with the peak periods of network traffic. However, as set out in the **Outline Code of Construction Practice (CoCP), (7.5, Rev 2)** submitted at Deadline 3, the proposed working weekday would be 07:00-19:00. The quantum of workforce commuting, reduced due to the limit on available car parking spaces (see previous paragraph), would therefore occur before and after the network peak traffic periods. This information is presented in the technical note reference “*TN009 Further Appraisal of Construction Traffic Impacts on A2016/A206 Corridor*” – submitted at Deadline 2 (see **Appendix G** of the **Applicant Responses to Relevant Representations** report (**8.02.03, REP2-054**)) and was discussed with TfL at a meeting on 31 May 2019.

Car parking provision (construction phase)

2.1.208 **Paragraph 3.130** of the **GLA WR** suggests that the Applicant should provide a full rationale for the number of parking spaces required at the REP site and demonstrate actions have been undertaken to reduce the level of parking.

- 2.1.209 The Applicant has committed, at Deadline 2, to limit on-site parking to a maximum of 275 parking spaces, a 50% reduction from the 552 spaces assumed at the time of the DCO submission and in the transport assessment (see **Paragraph 6.4.6 of Chapter 6, Transport** of the **ES (6.1, REP2-017)**). The requirement for workforce travel has been developed from the preferred contractor's (HZI) experience of delivering similar major infrastructure projects. The framework for the management of workforce commuting is set out in **Section 10.7** in the updated **Outline Construction Traffic Management Plan (CTMP) (6.3, Rev 2)** submitted at Deadline 3, which supersedes the **Outline CTMP, Appendix L** of the **TA, Appendix B.1** of the **ES (6.3, APP-066)**. The management of on-site parking is proposed at **Section 5.3** of the **Outline CTMP**.
- 2.1.210 The 275-space limit is based on the anticipated workforce required to construct REP and reflects the location of the REP site within the local public transport network and access to walking and cycling infrastructure. The Applicant will seek to achieve a significant modal share in favour of non-car or van-based commuting (in excess of 75% by non-car or van travel at peak construction) which is believed to be realistic and achievable. The outline CTMP secures the Applicant's commitment to seeking sustainable modes of transport.

Potential effects on the Strategic Road Network (A2016 Bronze Age Way and A206 Queens Road/Northend Road)

- 2.1.211 At Paragraph 3.129 of the GLA WR, TfL states that *"...Erith Roundabout, to the south of the site, currently experiences congestion and if its operation is sufficiently disrupted by REP construction traffic then the performance of other junctions could be affected, particularly given the lack of other routing options for traffic between Erith Roundabout and the Horse Roundabout (Bronze Age Way/Anderson Way/Picardy Manorway roundabout). TfL's London Highway Assignment Model (LoHAM) for the area where the site is located shows that traffic is likely to increase in the future and delays to the northern arm of Erith Roundabout are expected to increase as well"*.

Construction phase

- 2.1.212 The data showing the peak volume of traffic along the A2016 and A206 corridor in the vicinity of the REP site have been reviewed and show that the volumes, including the future growth that has been agreed with the Local Planning Authorities, are within the theoretical capacity for a single lane of traffic. The A2016/A206 along the line of the Electrical Connection is a dual carriageway two-lane corridor. The observed volume of traffic along the corridor, remote from the junctions, would therefore be able to flow along a single lane without undue disruption as it passes the temporary roadworks. This information is presented in technical note *"Traffic flows on A2016 Bronze Age Way and A206 Queens Road/Northend Road - Interface with Electrical Connection Construction Works"* (**Appendix F** of the **Applicant Responses to Relevant Representations (8.02.03, REP2-054)**).

- 2.1.213 Further supplementary evidence, contained in **Appendix G Further Appraisal of Construction Traffic Impacts on A2016/A206 Corridor** of the **Applicant Responses to Relevant Representations** report (8.02.03, REP2-054), shows that morning peak period disruption builds locally northbound from approximately 07:45 and dissipates from 09:45. Before and after this time period, the local network has reserve capacity. Those construction workers travelling by road to REP would be largely on-site before the network starts to become congested and are therefore unlikely to add further to local network congestion.
- 2.1.214 The construction of the Electrical Connection through this area of the network will temporarily affect the operation of the network, through the reduction in traffic lanes for the period of the road works and temporary traffic management around junctions. The disruption to the network is noted to be northbound in the morning peak between the Bexley Road roundabout and Boundary Road. The construction of the Electrical Connection through this section would take in the region of 4-6 weeks. The works would advance through the area in 200-300m sections and this would be managed in the manner of typical road works.
- 2.1.215 At the meeting of 31 May 2019, TfL confirmed that the traffic signal controlled junction of James Watt Way is operating under SCOOT (Split Cycle Offset Optimisation Technique), and would propose to adjust the timing management of the junction to allow for the roadworks. The details of these adjustments and the co-ordination with the temporary traffic management of the roadworks would be agreed with LBB (in consultation with TfL) in the preparation of the final CTMP which would cover these roadworks. The potential effects of construction of the Electrical Connection are discussed further below.
- 2.1.216 Further evidence relating to the operation of the SRN during the construction period has been submitted at Deadline 2, **Appendices F and G** to the Applicant's **Responses to Relevant Representations (8.02.03, REP2-054)**. The evidence shows that there is sufficient spare capacity within the road network outside of peak periods – currently and as predicted – for further assessment work not to be required.
- 2.1.217 At a meeting of 31 May 2019, between TfL and the Applicant, TfL did not contest this point and has since confirmed in correspondence of 12 June 2019 that further micro-simulation assessment work is not required.

Operational phase

- 2.1.218 The Applicant confirms that the assessment of future traffic impacts, associated with the operational phase of REP and the construction phase have taken into account the committed local developments as well as TEMPro background growth, as agreed with the London Borough of Bexley and Dartford Borough Council, and it is considered that the potential growth in the future has been taken into account.

Outline CTMP

- 2.1.219 At **Paragraph 3.131** of the **GLA WR**, TfL states that its *“...key concern, in relation to the proposed mitigation, is the lack of detail on construction traffic impact offered by the Applicant and the lack of commitment to mitigation measures within the outline CTMP”*. TfL adds that *“...at a minimum these should include commitment to an electronic delivery booking system and retiming for out of peak deliveries”*.
- 2.1.220 The **Outline CTMP (6.3, Rev 2)** submitted at Deadline 3, sets the framework for mitigation initiatives during construction. The Applicant confirms that at **Section 12.1** of the **Outline CTMP (6.3, Rev 2)** submitted at Deadline 3, a commitment to a vehicle booking system is included. References to retiming of deliveries to out of peak periods, where practical, are made in the document at **Section 9.1.3** and **10.2.12** of the **Outline CTMP (6.3, Rev 2)** submitted at Deadline 3, and a commitment also made in **Table 10.1 “Planned Measures”** of the **Outline CTMP (6.3, Rev 2)** submitted at Deadline 3.
- 2.1.221 TfL states, at **Paragraph 3.132**, that there are *“...inconsistencies between the CoCP and the CTMP that need to be resolved. For example, the delivery booking system is committed to in the CoCP, but not in the outline CTMP. The final, detailed, versions of these documents, to be secured through the DCO, should align on the committed measures”*.
- 2.1.222 The Applicant disagrees with this point. Both the **Outline CoCP (7.5, Rev 2)**, submitted at Deadline 3) and **Outline CTMP (6.3, Rev 2)** submitted at Deadline 3, reference the commitment to a vehicle booking system. Furthermore, **Requirement 13(3)** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3, provides for TfL to be consulted on the approval of the final CTMP/CTMPs which affect roads within the London Borough of Bexley.

Network modelling

- 2.1.223 **Paragraph 3.133** of the **GLA WR**, TfL states that *“...the Applicant has not provided any network modelling to show what the impact of the construction traffic would be on the SRN, which means that both the level of mitigation required and the details of how the Applicant would provide an assessment of what would be appropriate mitigation is unclear”*.
- 2.1.224 The Applicant has provided supplementary evidence to TfL on the likely temporary construction period impacts on the A2016 / A206 road network (**Appendix F “Traffic flows on A2016 Bronze Age Way and A206 Queens Road/Northend Road - Interface with Electrical Connection Construction Works”** and **Appendix G “Further Appraisal of Construction Traffic Impacts on A2016/A206 Corridor”** of the **Applicant Responses to Relevant Representations** report (**8.02.03, REP2-054**)). This includes the commitment to limit on-site parking to 275 parking spaces and for workers to commute outside the network peak period. This demonstrates that the effects on the road network during the peak construction period and the construction of the Electrical Connection would be Not Significant. This information

was discussed at a meeting with TfL on 31 May 2019 and the Applicant now awaits TfL's considered comments.

2.1.225 The **Outline CTMP (6.3, Rev 2)** submitted at Deadline 3, sets the framework for the construction period transport impact mitigation and would not include any further assessment or modelling of traffic impacts.

2.1.226 At **Paragraph 3.134** of the **GLA WR**, TfL states its concerns about the modelling undertaken by the Applicant noting "...it [the Applicant] would need to undertake a modelling exercise to determine the capacity of the local network and assess the impact on the highway network".

2.1.227 It is considered that any additional modelling is neither required nor reasonable because evidence has been provided to demonstrate that the local SRN would not be affected to such an extent that detailed micro-simulation modelling would be proportionate or justified to determine the temporary and transient effects associated with the construction phase of REP. This is further justified through the Applicant's commitments to limit on-site parking to 275 spaces and for staff to commute outside the network, demonstrate and other associated construction management initiatives that would be contained within an approved CTMP.

2.1.228 It is considered that there is no guarantee that any detailed modelling would reliably demonstrate the effects that might arise from the temporary, transient road works and may not be able to derive mitigation measures appropriate to the 4-6 week construction period.

DCO Requirements

2.1.229 **Paragraph 3.135** of the **GLA WR** states "...a DCO requirement should be included to ensure that there is sufficient mitigation in place to so that this level is not exceeded through committed measures set out in a CTMP, such as:

- *construction worker shuttlebus services (stated as being considered in CTMP paragraph 9.7.6);*
- *a regulated lift share scheme for construction worker to reduce the number of people driving to the REP in a single occupancy vehicle;*
- *delivery booking system (committed to in CoCP 4.2.4, but not in the outline CTMP; paragraph 9.7.6 stating that it would be 'considered'); and*
- *provision of parking permits to construction workers to park on site only for those workers who 'need' to drive and link the assessment of who needs".*

2.1.230 The Applicant confirms that the **Outline CTMP (6.3, Rev 2)** submitted at Deadline 3, contains the framework for construction period mitigation of traffic impacts which includes the above measures. It is noted that the final CTMP/CTMPs must be substantially in accordance with the **Outline CTMP (6.3, Rev 2)** submitted at Deadline 3. Accordingly, the measures are appropriately secured via **Requirement**

13 of the **dDCO (3.1, Rev 2)** submitted at Deadline 3. The final CTMP/CTMPs must be approved by LBB, in consultation with TfL.

Electrical Connection Construction Impacts

- 2.1.231 Following technical design work and investigations carried out by the Applicant and UK Power Networks (UKPN), a revised Application Boundary was submitted at Deadline 2 of the Examination to reflect the selected Electrical Connection route which follows the route of the A2016 and A206.
- 2.1.232 At Deadline 2, the Applicant submitted two technical notes (TN009 and TN013) to supplement the appraisal of transport impacts associated with the construction of the REP site and the Electrical Connection. Both technical notes are appended to the **Applicant Responses to Relevant Representations (8.02.03, REP2-054)** (see **Appendices F** and **G** of that report) and were issued to TfL on 16th May, prior to a meeting on 31st May 2019. TfL's comments on these notes are awaited.
- 2.1.233 Technical note reference TN013 "*Traffic flows on A2016 Bronze Age Way and A206 Queens Road/Northend Road - Interface with Electrical Connection Construction Works*" (**Appendix F** of the **Applicant Responses to Relevant Representations (8.02.03, REP2-054)**) sets out the predicted impacts on the road network during the peak construction period, including along the route of the Electrical Connection on Bronze Age Way, Queens Road and Northend Road. Technical note reference TN009 sets out a "*Further Appraisal of Construction Traffic Impacts on A2016/A206 Corridor*" (**Appendix G** of the **Applicant Responses to Relevant Representations** report (**8.02.03 REP2-054**)).
- 2.1.234 Given the information provided to TfL to date, the Applicant does not consider that it is necessary or proportionate to undertake any further traffic modelling exercise to assess the potential temporary impacts on the road network relating to peak construction activity associated with the REP site and the concurrent construction of the Electrical Connection. In email correspondence with TfL after the ISH on 6 June 2019, TfL has confirmed that they concur that there is no need to undertake further traffic modelling to assess potential temporary impacts on the road network.
- 2.1.235 The supplementary information demonstrates that traffic volumes on the A2016 / A206 corridor, remote from (peak time) congested junctions, are within the theoretical capacity of a single lane. Traffic would be able to pass the Electrical Connection construction roadworks without undue delays.
- 2.1.236 In the vicinity of the junctions of Bexley Road and James Watt Way, where peak period congestion can occur, the Applicant and the Electrical Connection construction contractor will agree with LBB, in consultation with TfL, a system of temporary traffic management to minimise the effects of the roadworks on road users.
- 2.1.237 Traffic mitigation during the construction of the Electrical Connection is identified in the **Outline CTMP (6.3, Rev 2)** as submitted at Deadline 3. The key measures to reduce network peak period effects would include:

- working with the contractor's workforce to minimise the number of people commuting by car or van;
- retiming construction deliveries;
- the potential to include managing the method of construction of the Electrical Connection in the most sensitive areas of the network to minimise the period of lane closures during network peak period; and
- in conjunction with TfL, adjust the timing of the traffic signals at James Watt Way to manage traffic flow within the junction.

Effect on Bus Services

2.1.238 The selected route for the Electrical Connection follows the A2016 / A206 corridor, this has been confirmed at Deadline 2 of the Examination. The route reduces the potential interface between the construction works and local bus services as it follows the dual carriageway two lane route of the A2016 / A206 corridor, ensuring that at least one lane of the route would be open at all times, except at localised road crossings. This gives rise to a potential reduction in effects on bus services when compared to those which might have occurred if the Electrical Connection were to have followed the single carriageway local roads in and around Erith town centre.

2.1.239 **Paragraphs 5.11.7 to 5.11.11** of the **Applicant Responses to Relevant Representation (8.02.03, REP2-054)** to Newell Projects Ltd on behalf of Arriva London Limited's Relevant Representation (RR-055) provides a detailed review of the interface between the Electrical Connection works and local bus services. **Paragraph 5.11.7** of that response (**8.02.03, REP2-054**), recognises that there will be interfaces with local bus services and these will be considered in detail within the final CTMP/CTMPs, to be secured through **Requirement 13** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

2.1.240 It is considered that the construction period for the REP site and the Electrical Connection should not require the diversion or rescheduling of bus services.

2.1.241 Where the Electrical Connection crosses side roads or crosses local bus services, the Electrical Connection contractor will agree with LBB/DBC (as required by the CTMP, in consultation with TfL, a method of temporary traffic management which minimises impacts on those bus services, reflecting the fact that the alignment follows a two-lane dual carriageway where one lane can be left open to traffic. The mitigation could include managed peak period working and off-peak working and the use of temporary portable traffic signals through junctions. It is not anticipated that roads would be closed to day-time local bus services so that services will not be cancelled or diverted from their current routes. The appointed contractor will review opportunities to construct the Electrical Connection within the footway corridor such that it minimises potential effects on bus routes and associated infrastructure and provide a balance with other viability criteria, such as physical obstructions and other environmental effects.

2.1.242 There is no legal obligation on the Applicant to provide compensation to bus service operators for delays as a result of works to construct the Electrical Connection. There is no entitlement to compensation if a business, including bus services, is affected by roadworks undertaken by statutory undertakers or the highway authority and the circumstances in this case are no different. Therefore, there could be no claim for compensation against the Applicant or UKPN.

Summary

2.1.243 In its WR, the GLA (and TfL) raises concerns regarding the potential effects on the highway network during the construction of REP and the Electrical Connection and the operational phase of REP. These concerns relate to effects on the Strategic Road Network, including consideration of junction and highway capacity, the need for further modelling work to supplement the assessment work already presented, the adequacy of controls set out in the CTMP, DCO requirements and potential effects on bus services.

2.1.244 These matters have been taken into consideration in the supplementary assessment work which has been undertaken and in the additional commitments made by the Applicant. A route for the Electrical Connection has also been selected which minimises potential temporary construction effects on road users.

2.1.245 As described in the foregoing, the matters raised by GLA (and TfL) have been responded to in detail in a series of technical notes issued to TfL and in follow up meetings and correspondence with TfL in May and June 2019. It is considered that sufficient information and appropriate evidence has been submitted to TfL and the Examining Authority to demonstrate that the effects on the road network during both the construction and operation phases of REP would be Not Significant, as presented in **Chapter 6 Transport** of the **ES (6.1, REP2-017)**.

2.2 Kent County Council

Introduction

2.2.1 Kent County Council (KCC) has raised four issues within its Written Representation (WR). These relate to:

- Highways and Transportation;
- Public Rights of Way (PRoW);
- Heritage; and
- Biodiversity.

2.2.2 This response covers each of these issues in turn below.

Highways and Transportation

2.2.3 In the first instance, the Applicant notes that a draft of the **advanced Statement of Common Ground (SoCG)** was submitted at Deadline 2 (**8.02.01, REP2-050**).

2.2.4 At Deadline 2, the Applicant confirmed a single Electrical Connection route, which is reflected in the amended Order Limits shown on the **Works Plans (2.2, REP2-004)**. The Electrical Connection route is now as follows:

- from the REP site, the route follows Norman Road to the dual carriage way A2016 Picardy Manorway;
- the route then travels east from Picardy Manorway, along the A2016 (Bronze Age Way) into Queens Road into Northend Road into Thames Road into Bob Dunn Way, which are dual carriageways except for a short length at Cray Mill Bridge with single lanes; and
- the route then leaves the A206 at the roundabout with Joyce Green Lane, where it travels north along Joyce Green Lane, east along the Fastrack route through The Bridge Development, to the roundabout with Rennie Drive, where the cable would then be routed northwards to the Littlebrook Substation.

2.2.5 The Applicant notes the concerns raised with regards to potential impacts on the transport network during the construction phase of the Electrical Connection route. The Electrical Connection route would fall under KCC's remit as it runs from Cray Mill railway underbridge via Bob Dunn Way to the north end of Joyce Green Lane. A traffic and transport assessment accompanies the DCO Application and is presented in **Chapter 6 Transport** of the **ES (6.1, REP2-017)**.

2.2.6 **Chapter 6 Transport** of the **ES (6.1, Rev 1, REP2-017)** reports that there would be no likely significant adverse construction effects in relation to driver delay in KCC and DBC's administrative areas (based on the reasonable worst case analysis). As set out in **Table 6.39** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)** no

residual likely significant effects are anticipated to arise from the construction of the Proposed Development, following the implementation of mitigation measures in the **Outline Construction Traffic Management Plan (CTMP)**, **Appendix L** of the **Transport Assessment (TA)** (**Appendix B.1** of the **ES (6.3, REP2-064)**).

- 2.2.7 The Applicant has been in discussion with KCC and Dartford Borough Council (DBC) regarding potential traffic and access effects arising from the Proposed Development since the initial stages of stakeholder engagement. The Applicant and KCC have reached an advanced stage of an **SoCG** (a draft of which was submitted at Deadline 2, **(8.01.04, REP2-050)**). **Section 2.2** of the **draft SoCG with KCC (8.01.04, REP2-050)** sets out the specific matters of agreement between the Applicant and KCC regarding the assessment and mitigation of the potential effects of transport and on PRowWs.
- 2.2.8 **Paragraph 2.2.27** of the draft **SoCG with KCC (8.01.04, REP2-050)** states that the parties agree “...*the consideration of further mitigation and enhancement measures are appropriate*”. The Applicant therefore considers that the necessary mitigation has been adequately secured through the Outline CTMP, which is secured via **Requirement 13** of the **draft Development Consent Order (dDCO) (3.1, Rev 2)**, submitted at Deadline 3.
- 2.2.9 Furthermore, discussions between KCC, DBC and the Applicant have included the potential for highway incidents and the generally uncontrollable issues which may arise at those times. In respect of the preparation of the SoCG with DBC, the Council requested a form of control for high proportions (90%) of incoming residual waste by road during normal operation. However such a control was not pursued further in light of the Applicant's decision to significantly restrict heavy commercial vehicle movements. This control is set out in **Appendix B** to the **SoCG with DBC (8.01.09)** and is included in **Requirement 14** of the **dDCO (3.1, Rev 2)**, submitted at Deadline 3.
- 2.2.10 As required by **Paragraph 6.3** of **KCC's LIR**, the CTMP is secured in **Requirement 13** of **Schedule 2** of the **dDCO (3.1, Rev 2)**, submitted at Deadline 3, which requires that no part of the authorised development may commence (including the pre-commencement works) until a CTMP for that part is approved by the relevant planning authority, in consultation with the highway authority. The CTMP must be substantially in accordance with the **Outline CTMP** in **Appendix L** of the **Transport Assessment (TA)** (**Appendix B.1** of the **ES (6.3, Rev 2)**).
- 2.2.11 The Applicant notes the information provided in the LIR with regards to the A2 Bean and Ebbsfleet junction improvements scheme, and the Lower Thames Crossing scheme. The Applicant confirms that, in accordance with **Section 3.2** of the **Outline CTMP (Appendix B.1** of the **ES (6.3, Rev 2)**), the relevant highway authority will be consulted on a detailed programme of works for the principal construction stages of the Proposed Development. It should also be noted that the **dDCO (3.1, Rev 2)**, submitted at Deadline 3, includes in **Requirement 13** of **Schedule 2** that the CTMP must be approved by the relevant planning authority in consultation with the highway authority and in carrying out street works pursuant to the Order (Article 11), Sections 54 to 106 of the New Roads and Street Works Act 1991 apply.

Public Rights of Way (PRoW)

- 2.2.12 The Applicant notes the comments made in the WR with regards to Public Rights of Way (PRoWs).
- 2.2.13 In accordance with NPPF Paragraph 98, the Applicant has considered PRoWs in **Chapter 6 Transport** of the **ES (6.1, REP2-017)** and secured measures to protect PRoWs during the construction phase in a dedicated chapter (**Chapter 7**) in the **Outline CTMP (Appendix L of the Transport Assessment (TA)) (Appendix B.1 of the ES (6.3, Rev 2))**. The Outline CTMP is secured in **Requirement 13 of Schedule 2 to the dDCO (3.1, Rev 2)** submitted at Deadline 3.
- 2.2.14 Following engagement with KCC, the Applicant made additions and amendments to the **Outline CTMP** which was re-submitted at Deadline 2 (**6.3, REP2-064**). These updates have also been noted in the advanced draft **SoCG with KCC (8.01.04, REP2-050)**.
- 2.2.15 The England Coast Path is assessed (and described in **Paragraph 6.7.39**) as a receptor within **Chapter 6 Transport** of the **ES (6.1, REP2-017)**, and **Paragraph 2.4.2** of the **Appendix B.1 Transport Statement (6.3, APP-066)**. Assessments reported within **Section 6.9 Chapter 6 Transport** of the **ES (6.1, REP2-017)** do not identify significant effects to this receptor.
- 2.2.16 The need for people counters, to monitor path use, was discussed at a meeting with KCC on 22nd February 2018 at which representatives from the planning and highways teams were present. The minutes of that meeting are included in **Appendix C.8** of the **Consultation Report (5.1, APP-023)** submitted with the DCO Application. The meeting minutes state:
- “...[the Applicant] questioned the suggested need for people counters to monitor path use ahead of the construction phase. It was agreed that this is likely to be over the top if only temporary localised diversions are proposed and depending on construction methodology”.*
- 2.2.17 The Applicant's position remains that, given the temporary nature of the effect and the mitigation measures to protect PRoWs included in **Chapter 7** of the **Outline CTMP (6.3, Rev 2)**, people counters are not necessary. **Chapter 7** of the **Outline CTMP**, which has been agreed with KCC, includes specific footpath considerations for the England Coast Path, DB1 and DB5, and DB3. **Chapter 7** also confirms that DB50 and DB56 would not be affected by the Proposed Development. The text in **Chapter 7** was included in the advanced draft SoCG with KCC following discussion, including with the PRoW officer, and therefore the Applicant considers that there are no outstanding issues with KCC on PRoW.

Heritage

- 2.2.18 The Applicant welcomes the confirmation from KCC that the approach to archaeological assessment and fieldwork has been agreed, and that the council is satisfied that the schemes of geoarchaeological and archaeological work will be in

accordance with specifications/Written Schemes of Investigation (WSIs) that are agreed as appropriate.

2.2.19 In this regard, **Requirement 7(2)** of **Schedule 2** of the **dDCO** was amended at Deadline 2, (**3.1, REP-006**) and is also updated at Deadline 3 (**3.1, Rev 2**), to include that the WSI must identify any areas within the administrative area of Kent County Council where a programme of geoarchaeological works and a phased programme of archaeological works are required.

2.2.20 The advanced draft SoCG with KCC (**8.01.04, REP2-050**) confirmed at **Paragraph 2.3.19** that the consideration of further mitigation and enhancement measures are appropriate. Furthermore, **Section 2.3** of the advanced draft **SoCG** with KCC (**8.01.04, REP2-050**) sets out the specific matters of agreement between the Applicant and KCC regarding the assessment and mitigation of potential effects on the historic environment. Therefore, the Applicant considers that there are no outstanding matters on heritage with KCC.

Biodiversity

2.2.21 The LIR notes that a detailed method statement should be produced if the proposed Electrical Connection works are going to affect any protected or notable species or habitats on the roadside verges.

2.2.22 **Requirement 5** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3, requires a Biodiversity and Landscape Management Strategy to be submitted to and approved by the relevant planning authority for each part of the Proposed Development (as defined in the dDCO). The strategy must be substantially in accordance with the **Outline Biodiversity and Landscape Management Strategy (OBLMS) (7.6, Rev 1)** submitted at Deadline 3.

2.2.23 **Section 3.1** of the **OBLMS** sets out the mitigation measures to be implemented during the pre-construction and construction stages for the Proposed Development, Electrical Connection Route and Cable Route Temporary Construction Compounds. If any pre-commencement works are to be carried out (as defined in the dDCO), then these would be subject to the pre-commencement biodiversity and landscape mitigation strategy under **Requirement 4** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3. The Applicant and KCC have been working towards agreeing a SoCG; the Applicant submitted an **advanced draft Statement of Common Ground (SoCG) with KCC (8.01.04, REP2-050)** at Deadline 2.

2.2.24 **Paragraphs 2.4.4** and **2.4.5** of the **advanced draft SoCG with KCC (8.01.04, REP2-050)** state:

*“It is agreed that the **Requirement 5** at **Schedule 2** of the **dDCO (3.1, APP-014)** is sufficient to ensure adequate consideration of mitigation measures in respect of the final chosen Electrical Connection alignment.*

*Furthermore, for the avoidance of doubt, it is agreed that **Paragraph 1.4.3** of the **Outline Biodiversity and Landscape Mitigation Strategy (OBLMS) (7.6, APP-107)** is amended to read:*

“The purpose of this OBLMS is to capture the key principles required to avoid, mitigate and compensate for effects on terrestrial biodiversity from preconstruction, construction, operation and maintenance of REP. The OBLMS has been split between:

- *measures applicable to the REP site, the Main Temporary Construction Compounds and, where relevant, the Data Centre site; and*
- *those applicable to the Electrical Connection route.*

*Where works occur within the KCC boundary, Dartford Borough Council will consult with them in respect of the approval of any BLMS under **Requirement 5** of the **dDCO.**”*

2.2.25 This agreed amendment has been incorporated in the updated **OBLMS (7.6, Rev 1)** submitted at Deadline 3.

2.3 London Borough of Bexley

Introduction

2.3.1 The London Borough of Bexley (LBB) has raised 11 areas which it considers to be outstanding with the Applicant in its Written Representation (WR). These relate to:

- Planning policy (specifically waste);
- Socio-economics;
- Air quality;
- Biodiversity;
- Historic environment;
- Transport;
- Ground conditions;
- Townscape and visual;
- Noise and vibration;
- Flood risk and water resources; and
- Compulsory acquisition issues.

2.3.2 The Applicant's response covers each of these issues in turn below.

2.3.3 The Applicant welcomes LBB's in-principle support to the Proposed Development set out at paragraph 1.8 of LBB's WR. In **Paragraph 1.8**, LBB recognises the support given to the Energy Recovery Facility (ERF) element of Riverside Energy Park (REP) in the National Policy Statements, REP's riverside location and its ability to be served mainly via the River Thames enabling it to accept waste from a wider area, and the associated employment and other economic benefits that would be brought to the Borough.

Planning Policy (waste)

Areas of contention

Waste hierarchy

2.3.4 The Applicant notes LBB's comments at **Paragraph 3.2** that it is supportive of moving the management of wastes up the waste hierarchy, which is the purpose behind the ERF and Anaerobic Digestion plant at REP.

2.3.5 LBB states that the ERF should only treat residual wastes as reflected in the Applicant's **Project and Its Benefits Report (6.1, APP-103)**. The ERF will recover residual waste and avoid its disposal to landfill or export overseas. The Applicant

agrees with LBB, at **Paragraph 3.4**, that no changes to the Development Consent Order should be made in respect of the waste hierarchy, as this is a matter for the Environment Agency, as the Applicant explained in its response to the Examining Authority's first written question 1.0.15 in the **Applicant Responses to EXA First Written Questions (8.02.04, REP2-055)**. This answer explains how the European Waste Codes are used in the Environmental Permit to constrain the types of waste that the ERF could receive. As stated at the Issue Specific Hearing on Environmental Matters held on 5 June 2018, the Applicant is also preparing a note on Duty of Care responsibilities and will submit this into the Examination.

2.3.6 LBB also recommends that the burning of any digestate produced from the Anaerobic Digestion plant should be discouraged, but recognises that the commercial value of digestate and associated market mechanisms are considered sufficient to ensure that the digestate is managed appropriately. For this reason, LBB, at **Paragraph 3.4**, does not consider that any changes to the draft Development Consent Order are required, and the Applicant agrees.

Need and capacity

2.3.7 In the **Applicant Responses to ExA First Written Questions (8.02.04, REP2-055)** (Question 1.0.2), the Applicant explained why fixing the maximum capacity for either the ERF or Anaerobic Digestion plant was not appropriate. This included, particularly in **Paragraphs 1.2.8-1.2.14**, matters such as addressing different calorific values of waste and artificially restricting the potential for technological efficiency improvements when these bear no direct relationship to the environmental effects from the scheme. The Applicant refers LBB to its answer in question 1.0.2 in respect of limiting the capacity of the ERF and the Anaerobic Digestion plant as well as **Paragraph 2.5.13** of **NPS EN-3** which states that "*throughput volumes are not, in themselves, a factor in [Secretary of State] decision-making as there are no specific minimum or maximum fuel throughput limits or different technologies or levels of electricity generation. This is a matter for the applicant.*"

2.3.8 In respect of need, as reported in **Paragraph 4.2.48** of the Applicant's **Project and Its Benefits Report (6.1, APP-103)** there is approximately two million tonnes of existing residual waste management capacity required across counties close to London (Essex, Hertfordshire, Kent, Norfolk, Surrey and Suffolk) identified through their respective development plan documents. Notwithstanding this, London alone requires new capacity especially if it is to be net self-sufficient as required by the London Plans. It is anticipated that the ERF element of REP would treat approximately 655,000 tonnes of residual (non-recyclable) waste per annum. However, for the EIA's 'reasonable worst case' assessment a maximum throughput of approximately 805,920 tonnes per annum (tpa) is assessed (which is the ERF's theoretical capacity).

2.3.9 The London Plans (Adopted London Plan and Draft London Plan) and the London Environment Strategy (LES) all endorse energy recovery facilities as a key element of the sustainable communities which the Mayor wants to see developed in London. Delivering national policy locally, the London Plans recognise the recovery of

energy from waste as a preferred level of the waste hierarchy, lying below reuse and recycling but above disposal to landfill.

- 2.3.10 However, it is recognised that **Paragraph 9.7.3A** of the Draft New London Plan states that '*...modelling suggests that if London achieves the reduction and recycling set out, above, it will have sufficient Energy from Waste capacity to manage London's non-recyclable municipal waste*'. The first point to note is that this statement is wholly reliant on the word "if" London achieves. Of course, predictions and assumptions are not certain, and the worst possible outcome for London would be for waste to remain at the bottom of the waste hierarchy (and in turn have a greater carbon effect) in the event that not enough facilities that assist the waste hierarchy are available.
- 2.3.11 The Proposed Development, a market-led and privately financed project, will assist London in ensuring that waste is treated at a higher level in the waste hierarchy compared to landfill, as well as having a positive effect on carbon emissions.
- 2.3.12 The Applicant has submitted a comprehensive assessment of both commercial and local authority collected residual waste management capacity requirement in **The London Waste Strategy Assessment ('LWSA') (Annex A of the Project Benefits Report, (7.2, APP-103))**. The LWSA considers how the Proposed Development contributes to meeting the waste management strategy set out in the London Plans. The Assessment considers a range of scenarios based on the different waste forecasts and recycling and recovery policies within the London Plans, and applies updated assumptions from the LES. Four scenarios within the Assessment consider the various elements that can affect our understanding of future waste management demands. The Assessment demonstrates that REP is required to deliver sustainable waste management and net self-sufficiency within London and that there is always a need for REP, and generally, for energy recovery capacity greater than the nominal throughput proposed for the ERF.
- 2.3.13 The LWSA utilises the anticipated nominal tonnage throughput of 655,000 tpa. However, the principles of need remain should the maximum capacity figure of 805,920 tpa be utilised. The LWSA demonstrates a clear need for the ERF element of REP.
- 2.3.14 Whilst the Applicant has carried out its own assessment of "need", this is in addition to the already established position in national policy. The Overarching National Policy Statement for Energy (EN-1) and the National Policy Statement for Renewable Energy Infrastructure (EN-3) both establish an urgent and substantial need for new energy generation infrastructure of the types included in the NPSs. Energy from waste plants (the ERF component of REP being the largest), are expressly referred to under the heading of "*The role of renewable electricity generation*" in section 3.4 of EN-1, which concludes at paragraph 3.4.5 that the "*need for new renewable electricity generation projects is therefore urgent*", a sentence that applies to energy from waste plants. Paragraph 2.1.2 of EN-3 goes on to say that "*the [Secretary of State] should act on the basis that the need for infrastructure covered by this NPS [which includes energy from waste] has been demonstrated.*"

2.3.15 In addition, **EN-1** is clear (at **Paragraph 3.3.24**) that it is "*not the Government's intention to set targets or limits on any new generating infrastructure to be consented in accordance with the energy NPSs. It is not the [Secretary of State's] role to deliver specific amounts of generating capacity for each technology type.*" The role of the NPSs, therefore, is to enable those technology types set out in the NPSs to come forward and, if acceptable in planning terms, be consented. It is then for the market to decide how to build those projects (see paragraph 2.2.19 of EN-1).

2.3.16 In summary, the Applicant maintains that the Proposed Development is in accordance with both the Adopted London Plan and the Draft London Plan. The Applicant's **Planning Statement (7.1, APP-102)** reports the assessment of the Proposed Development against national, regional and local planning policy.

Proximity Principle

2.3.17 The Applicant notes LBB's support for the site's riverside location in paragraph 1.8 of its WR and that this allows the ERF to accept waste from a wider area. The Environmental Impact Assessment (EIA) considered reasonable worst case modal splits of 100% by river and 100% by road. Both means of transportation were found to result in effects that were Not Significant. Notwithstanding this, the Applicant confirmed, at Deadline 2, its proposal to significantly reduce the potential for road-based heavy commercial vehicle deliveries to access the site.

2.3.18 The **dDCO (3.1, Rev 2)** submitted at Deadline 3, includes a requirement in Schedule 2 (Requirement 14), that restricts the number of heavy commercial vehicle movements delivering waste to the ERF and the Anaerobic Digestion facility. There is an exception to this restriction in respect of a jetty outage. The Applicant, responding to matters raised at the DCO Issue Specific Hearing, has further refined this commitment which now no longer utilises any spare capacity in permitted heavy vehicle movements at the RRRF facility. The Requirement also requires that, save where there is a jetty outage, incinerator bottom ash must only be removed via the river.

2.3.19 This restriction will achieve a modal split strongly in favour of river use and as confirmed by LBB in **Paragraph 4.9**, means that the Proposed Development satisfies the policy objectives of CS09, CS15 and Core Strategy Spatial Objective 8.

2.3.20 As a river-only logistics organisation, and having invested heavily in river-based infrastructure at Riverside Resource Recovery Facility (RRRF), the Applicant is also subject to a strong commercial imperative to maximise use of river transport.

2.3.21 The Applicant's significant restriction, beyond the 100% road-based scenario, is sufficient to ensure a beneficial modal split, heavily biased in favour of river transport, sought by LBB without imposing additional undue and inappropriate constraints on the ability of the ERF and Anaerobic Digestion plant to receive wastes from appropriate markets, regardless of origin. Furthermore, the Applicant reiterates that there is no EIA basis for a restriction below a 100% by road allowance. The restriction to a '90 in - 90 out' commitment (to heavy waste vehicle

movements) in **Requirement 14** is therefore a very significant commitment from the Applicant to secure a high proportion of waste by river.

Maximising the use of the river

2.3.22 As set out above, the Applicant has proposed a significant constraint to road-based deliveries for the ERF and the Anaerobic Digestion plant, despite finding that the 100% by road scenario would result in no significant effects. Considered with the Applicant's own commercial imperatives, this provides sufficient control to achieve a modal split vastly in favour of river use.

2.3.23 In respect of ash leaving the REP site, **Requirement 14** of **Schedule 2** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3 includes a requirement that requires the incinerator bottom to only be removed via the river, save where there is a temporary jetty outage.

2.3.24 **Requirement 14** of the **dDCO (3.1, Rev 2)** addresses the matter of jetty outage. The Applicant considers that its wording in Requirement 14 is appropriate and does not accept the alternative wording set out by LBB for reasons given in the dDCO table in **Appendix D** to this response. Following the Issue Specific Hearing into the dDCO, the Applicant has reviewed the storage capacity of REP and has concluded that the jetty outage exception should be triggered after 48 hours, rather than immediately. This time period has been inserted into the **dDCO (3.1, Rev 2)**.

Combined Heat and Power (CHP)

2.3.25 The Applicant notes LBB's commentary in respect of CHP provision. However, it should be noted that RRRF is 'CHP-Ready' being the minimum standard required by the Environment Agency. In contrast, REP will be 'CHP-Enabled', such that it has a more advanced state of readiness and that all supporting infrastructure and pipe networks to the site boundary are included in Schedule 1 to the draft Development Consent Order.

2.3.26 The Applicant maintains that the Proposed Development would be compliant with the target outlined in the Adopted and Draft London Plans and the London Environment Strategy across all operational scenarios in respect of the Carbon Intensity Floor (CIF). A detailed explanation of the progression of discussions and calculations in respect of CIF performance is provided in the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** submitted at Deadline 2.

2.3.27 With the Proposed Development being "CHP-Enabled" along with **Requirement 20** (combined heat and power) in Schedule 2 to the **dDCO (3.1, Rev 2)** submitted at Deadline 3, the Proposed Development meets the objectives set out in CS03 and CS08.

DCO Requirements

2.3.28 The proposed LBB amendments to the dDCO reflect the matters set out above and have therefore already been responded to by the Applicant. The specific wording of the dDCO amendments is considered in **Appendix D** of this report.

Socio-economics

Areas of contention

2.3.29 The Applicant notes that LBB has acknowledged the correction which confirms that REP will provide 49 net additional jobs in the local area, taking account of all supply chain effects. This change is noted within **Table 2.1** of the Applicant's **Clarifications and Corrections Report (8.02.05, REP2-056)** submitted at Deadline 2.

2.3.30 In the Scoping Opinion received from the Secretary of State (dated January 2018, reference EN010093), the Secretary of State agreed with the Applicant's Request for a Scoping Opinion that the effects of tourism and recreation would be sufficiently addressed in other chapters of the ES (**Chapter 6 Transport** and **Chapter 9 TVIA**), and therefore would not need to be specifically assessed in **Chapter 14 Socio-economics** of the **ES (6.1, REP2-029)**. The Applicant considers that a robust assessment of recreational activities is provided for within **Chapter 6 Transport** of the **ES (6.1, REP2-017)** and **Chapter 9 TVIA** of the **ES (6.1, REP2-021)**. **Section 13** of each of these chapters identified effects as being Not Significant.

2.3.31 In respect of construction effects, at Deadline 2 the Applicant introduced an additional **Section 7** to the **Outline Construction Traffic Management Plan (CTMP) (Appendix L of Appendix B.1 Transport Assessment to the ES (6.3, REP2-064))**, to expand on the management of potentially affected Public Rights of Way (PRoW). The removal of the Electrical Connection route through Crossness Local Nature Reserve (LNR) has eliminated direct interaction with PRoW in this area. The potential interaction is therefore limited to FP2 (which connects to the southern end of Norman Road) and FP3 (which runs along the Thames Path) and FP4 (which connects to the north end of Norman Road). Commentary on the footpaths is included in the updated **Outline CTMP ((Appendix L of Appendix B.1 Transport Assessment to the ES (6.3, Rev 2)** submitted for Deadline 3. The additional wording is as follows:

"Additional paragraphs to be added to Section 7.3 of the Outline CTMP as follows after 7.3.6:

'FP2

7.3.7 FP2 would not be affected by the preferred option of an above-ground cable trough structure on the east side of Norman Road, at its junction with Picardy Manorway. This solution has been [Approved in Principle] by LBB Highways under the [New Roads and Streetworks Act], such that the likelihood of requiring a solution on the west side is very limited. In the event of works on the west side, the Applicant will liaise with LBB to seek to mitigate effects to the PRoW, including seeking to secure the shortest practical temporary diversion route.

FP3

7.3.8 *Following the EIA Scoping stage, the Applicant removed all proposed works within the river which might be required to facilitate construction-related deliveries other than in ISO containers via the existing jetty. This was to, in part, minimise potential closures arising to the Thames Path/FP3, from crane oversailing or transiting materials via a temporary platform. The Applicant therefore does not anticipate any closure or temporary diversion of this PRoW. In the event of works affecting FP3, the Applicant will liaise with LBB to seek to mitigate effects to the PRoW, including seeking to secure the shortest practicable temporary diversion route.*

FP4

7.3.9 *FP4 connects to the north end of Norman Road from the east and provides a through route to FP3 (the Thames Path). The exit of FP4 onto Norman Road may be affected during reconfiguration of the gated arrangement which currently serves visitors to RRRF. It is anticipated that only a short localised diversion would be required whilst the kerbline is adjusted. In the unlikely event that a temporary closure is required for safety reasons, an alternative connection route is available via FP3 and FP2. In the event that a temporary diversion via FP3 and FP2 is proposed, before implementation the Applicant will liaise with LBB to explore whether any alternative practicable solution can be agreed to maintain connectivity of FP4.”*

Potential for further mitigation

- 2.3.32 Following further consultation with LBB, the Applicant has agreed to the preparation and implementation of an Employment and Skills Plan to optimise opportunities for local employment, skills and economic development benefits. This will include how the use of the shared site with RRRF which, within operational and safety constraints, could provide beneficial opportunities for training, educational or community purposes. However, as noted at the DCO Issue Specific Hearing, RRRF provides a range of facilities that will not be replicated at REP, such as a conference/meeting room. Therefore, it will not be possible for the Applicant to make available such spaces as part of REP.
- 2.3.33 **Requirement 18 of Schedule 2 to the dDCO (3.1, Rev 2)** submitted at Deadline 3, secures the provision of, and implementation of, an Employment and Skills Plan.

DCO Requirements

- 2.3.34 As set out above, **Requirement 18 of Schedule 2 to the dDCO (3.1, Rev 2)**, submitted at Deadline 3 secures the provision of, and implementation of, an Employment and Skills Plan. As stated above, given that conference/visitor meeting room spaces will not be incorporated into REP, it is not possible for the Applicant to make such spaces available as part of the REP Development Consent Order.

2.3.35 See further **Appendix D** to this report which is the Applicant's response to LBB's track changes to the dDCO.

Air quality

Areas of contention

- 2.3.36 Regarding LBB's concerns over cumulative effects, the potential cumulative effects arising from the existing RRRF, Crossness Sewage Treatment Works and REP were modelled together with background concentrations and the contribution from local traffic. The results can be found in the results tables in **Appendix C.2.2** of the **ES (6.3, REP2-038)** where the column 'REP+RRRF+Crossness' are provided separately to the REP process contribution. As far as terminology is concerned, the baseline consists of background concentrations, road traffic contributions and the contribution from RRRF and Crossness Sewage Treatment Works (through further consultation with LBB, it is the Applicant's understanding that this issue has been resolved).
- 2.3.37 The potential effects of biogas combustion from the Anaerobic Digestion plant have been considered separately and information on the combined effects is provided in the response to the Examining Authority's first written question 2.0.32 in the **Applicant's Response to ExA First Written Questions (8.02.04, REP2-055)** where it is reported that there are no significant effects.
- 2.3.38 Regarding the stack height, the stack height is reported as being in a range between 90 m (above surrounding ground level) and 113 m (Above Ordnance Datum) (as secured in **Requirement 3** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3. The impact on annual mean NO₂ concentrations at all receptor locations is negligible, utilising the worst case (minimum) stack height of 90m (**Table C.2.2.9, Appendix C.2, (6.3, REP2-038)**). All pollutant impacts at human health receptors are Not Significant. The maximum stack height is limited by the proximity to London City Airport. The impacts of all pollutants potentially released from REP has been assessed and reported in **Chapter 7 Air Quality** of the **ES (6.1, Rev 1, REP2-019)**, including metals and PAHs as reported in the **Human Health Risk Assessment (6.3, REP2-040)**. The assessment reports no significant effects.
- 2.3.39 The Environmental Permit application has subsequently been submitted to the Environment Agency with a stack height of 90 m (above surrounding ground level) and a NO_x abatement technology of Selective Catalytic Reduction (SCR) which is considered to be the 'best' NO_x abatement technology available. The emission levels set out in the application would mean that REP would have the lowest emission limit for NO from any waste thermal treatment plant in the UK. Whilst the DCO Application has been made with a NO_x emission limit of 120mg/Nm³, the Environmental Permit application has been made with a NO_x emission limit of 75mg/Nm³ and the predicted impacts on NO_x and NO₂ concentrations will be proportionally lower. This is set out in the **Environmental Permit and Air Quality Note (8.02.06, REP2-057)**.

2.3.40 As LBB recognises in its Local Impact Report, the Environmental Permit will include emission limits, which will be monitored by the Environment Agency. It is therefore not appropriate to duplicate such emission limits in any Development Consent Order. Regulatory regimes should not duplicate each other, as is recognised by **National Policy Statement EN-1** in **Paragraph 4.10.3**. In addition:

- **NPS EN-1** at **Paragraph 5.2.4** states that *"the [Secretary of State] need not, therefore, be concerned with the exhaust stack height optimisation process in relation to air emissions"*;
- **National Policy Statement EN-3** at **Paragraph 2.5.45** states that the *"EA will determine if the technology selected for the waste/biomass combustion generating station is considered Best Available Technique (BAT) and therefore the [Secretary of State] does not need to consider equipment selection in its determination process."*; and
- **National Policy Statement EN-3** at **Paragraph 2.5.41** states that compliance with the Waste Incineration Directive is enforced through the environmental permitting regime regulated by the Environment Agency.

2.3.41 As is clearly recognised by the NPSs, the Environment Agency is the relevant regulatory body to monitor and enforce emissions levels, and as such it would not be appropriate for any Development Consent Order to include a requirement on emissions when the Environmental Permit process is still underway, as this could result in a conflict between the requirement on the Development Consent Order and the condition on the Environmental Permit.

2.3.42 As stated in **Paragraph 3.1.5** of **Appendix C.3.1 (6.3, REP2-040)**, the possibility of all high-end exposure assumptions occurring for dioxins and furans to the same individual would never be realised. The exposure pathways are further expanded upon in **Paragraphs 3.3.5 to 3.3.9** where it is shown that the exposure scenarios are unrealistically conservative for the assessment area. For this type of assessment, the standard methodology is always to undertake an extreme worst-case assessment, and provided that the Tolerable Daily Intake (TDI) is not exceeded (which they are not for the Proposed Development, see **Paragraphs 7.9.39 to 7.9.41** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**), the results are acceptable. It is not appropriate to judge the acceptability of the percentage of the TDI based on the IAQM assessment thresholds as these are derived through comparing predicted concentrations with environmental assessment levels and there is no environmental assessment level for dioxins and furans.

2.3.43 For nickel and arsenic, the answer to First Written Question 2.10.1 submitted with the **Applicant Responses to ExA First Written Questions (8.02.04, REP2-055)** provides information on how different levels of impacts at different receptors have been judged in relation to the overall effect. In the case of nickel, and as set out in **Paragraph 7.9.30** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**, none of the Predicted Environmental Concentrations (PECs) are above the assessment level for health effects. For arsenic, the two receptor locations with predicted minor

impacts are not residential areas and therefore these locations are not locations of relevant exposure for annual mean impacts.

- 2.3.44 For short-term nitrogen dioxide and sulphur dioxide, as stated in **Paragraph 7.9.31 Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**, the Industrial Emissions Directive (IED) allows higher emissions over short term periods of 1/2 hour, but the overall daily emission limit must still be met. These are therefore very short-term peak emission concentrations, which would be counteracted by lower emission concentrations for the rest of the day (to enable the daily emission limit to be met). In order to assess if any of these short-term peak emissions would lead to a breach of an assessment level, the modelling assumes that these higher emissions occur all the year round (which cannot be the case, as the daily emission limit must be met). It is not appropriate to apply the ES significance criteria outlined in **Section 5 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** to these modelled results as the modelling scenario cannot occur in practice, and the only purpose of the assessment is to ascertain if the short-term peak concentrations would exceed the assessment level. **Paragraph 7.9.32 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** reports that the Predicted Environmental Contribution (PEC) for NO₂ and SO₂ would be less than 50% of the assessment level and therefore not significant.
- 2.3.45 Public Health England's (PHE) Relevant Representation (RR-067) as responded to within the **Applicants Response to Relevant Representations (8.02.03, REP2-054)** confirmed that they are satisfied with the methodology used to undertake the assessment.
- 2.3.46 In addition, the Applicant refers to its note **Post Hearing Note on Public Health and Evidence** submitted at Deadline 3 (**8.02.27**).
- 2.3.47 The Applicant notes LBB's agreement in their Paragraph 5.4 that all other issues in respect of Air Quality Management Areas (AQMA), London Plan policies and baseline data have been satisfactorily addressed, subject to the provision of the Environmental Permit application. The Applicant has previously confirmed that an Environmental Permit application has been duly made.

Potential for further mitigation

- 2.3.48 Pre-commencement works are defined in Article 2 (in the definition of "Commence" of the **dDCO (3.1, Rev 2)** submitted at Deadline 3 as:
- land and vegetation clearance (including the removal of topsoil and any mowing, coppicing, felling and pruning);
 - environmental surveys and monitoring;
 - investigations for the purpose of assessing ground conditions (including the making of trial boreholes);

- receipt and erection of construction plant and equipment, erection of construction welfare facilities, erection of any temporary means of enclosure;
- the temporary display of site notices or advertisements; and
- any other works that do not give rise to any likely significant adverse environmental effects as assessed in the environmental statement.

2.3.49 Following the Issue Specific Hearing on the Development Consent Order held on 5 June 2019, the Applicant has revised the Requirement securing a CoCP so that it applies to the pre-commencement works as well as the commencement of the authorised development. This has been made in Rev 2 of the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

2.3.50 In respect of air quality monitoring, the Overarching National Policy Statement for Energy EN-1 is clear at paragraph 4.10.3 that *“The [Secretary of State] should work on the assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator. It should act to complement but not seek to duplicate them.”*

2.3.51 The Applicant is required to submit an Environmental Permit to be able to operate REP and has done so to the Environment Agency (EA). The Environmental Permit is the appropriate and established regime for controlling emissions to air from the plant. The emissions stipulated in the Environmental Permit would fall within the reasonable worst case envelope assessed in the ES (which can be seen Table 3-1 in the Environmental Permit and Air Quality Note submitted at Deadline 2 (8.02.06, REP2-057). This is due to technological commitments made by the Applicant in their Environmental Permit application which were not present in the DCO Application.

2.3.52 The EA is the appropriate controlling authority and have the appropriate resources and expertise to monitor emissions on a regular basis.

2.3.53 In respect of the referenced UK Government (DEFRA) publication, the document is guidance (not national or local policy) and is designed to guide policy appraisers ‘in assessing the air quality impacts of a policy’ (first paragraph to the introduction of ‘Air quality damage cost guidance’, DEFRA, 2019). It is not intended to apply to individual proposals.

2.3.54 Reference to IAQM guidance is already included in the **Outline Code of Construction Practice (CoCP) (7.5, REP2-046)** at **Paragraph 4.3.3** which states *“Additionally, standard mitigation measures for low risk sites, taken from the Institute of Air Quality Management (IAQM) document ‘Dust and Air Emissions Mitigation Measures’ tables, would also be applied”*. The **Outline CoCP** allows for a range of different guidance documents to be included, not just a single professional authority.

DCO Requirements

2.3.55 See **Appendix D** to this report which is the Applicant's response to LBB's track changes to the draft Development Consent Order.

Biodiversity

Areas of contention

Baseline information and surveys

2.3.56 Great crested newts have not been identified within the Application Site, including during eDNA surveys undertaken along the Electrical Connection route in 2019, as reported in **Great Crested Newt eDNA Survey 2019 (8.02.11, REP2-062)** submitted at Deadline 2 and therefore no impacts to this species are anticipated. The survey data is therefore not incomplete.

2.3.57 Habitats within the main REP site and the majority of the Electrical Connection route are not suitable for otter. A number of options are being considered for the design of crossings of watercourses, which could theoretically support otters. The Applicant considers that specific surveys for otters are not required at this stage, however if the final option of the Electrical Connection affects small areas of habitat which could theoretically support this species then further surveys will be undertaken to inform requirement for mitigation measures. This is secured within the **Outline Biodiversity and Landscape Mitigation Strategy** to be submitted at Deadline 3 (**7.6, Rev 1**). Impacts to otters, if present, through the installation of the Electrical Connection would be temporary, and would not affect the conservation status or the recovery of the species in the region.

2.3.58 As stated in **Paragraph 4.7.3** of the **Outline CoCP (7.5, REP2-046)**, and **Paragraph 11.9.5** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**, any potential direct effects on water voles during construction of REP would be avoided through ensuring a 5 m offset during construction work from ditches which may support water vole (except for minor localised works). The CoCP is secured via **Requirement 11** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 which requires that the final CoCP submitted to and approved by the relevant planning authority is in substantial accordance with the **Outline CoCP**. The Applicant confirmed in their submission at Deadline 2 that the Electrical Connection route through Crossness LNR had been removed and as such the associated potential effects would no longer occur. A short length of the western verge of Norman Road lies within the LNR designation but comprises verge adjacent to the highway and is outside the Thames Water managed site and beyond the boundary ditch.

Significance criteria

2.3.59 The assessment of impacts to biodiversity has been undertaken in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) geographic frame of reference (industry standard practice) as described at the EIA Scoping stage (see **Appendix A.1** – Scoping Opinion and Removal of River Works Note of the **ES (6.1, APP-062)**). At all stages of the assessment, the CIEEM approach has been used. **Table 11.3** of **Chapter 11 Terrestrial Biodiversity** of

the **ES (6.1, REP2-023)** provides a means of relating the CIEEM approach to the approach used in other chapters of the **ES** in order to allow **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** to be integrated into the wider ES, without compromising the CIEEM best practice approach.

2.3.60 As described at **Paragraph 11.5.30** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**, both the CIEEM criteria and the generic ES criteria have been used within the assessment of residual effects. **Paragraphs 11.12.2** and **11.12.4** and **Table 11.11** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** provide the assessment of residual effects using both the CIEEM criteria and the ES criteria, presented separately.

2.3.61 Mitigation measures have been provided even where no significant effects to a receptor have been identified where this is standard practice, as well as where significant effects have been identified to a receptor of 'local' importance. Therefore, ecological effects will not have been under-mitigated/compensated.

Cumulative assessment

2.3.62 **Section 11.10** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** identifies the potential for cumulative effects to the Erith Marshes Site of Importance for Nature Conservation (SINC) from REP and the Thamesmead Industrial Estate extension. Following removal of the Electrical Connection route option from Crossness LNR/Erith Marshes SINC, there will be no direct effects to this designated area (save for a small area of public highway verge adjacent to Norman Road and a small area of SINC at the southern end of Norman Road). Both REP and land at the Eastern Thamesmead Industrial Estate Extension (10/00063/OUTEA) have potential to result in disturbance of habitats or species within Erith Marshes SINC. However, impacts from both schemes are on marginal areas, or habitats of lower ecological value, therefore cumulative impacts are unlikely to be significant to this designated area.

Biodiversity metric and mitigation and compensation

2.3.63 The Biodiversity Metric has been progressed and is included in the **Biodiversity Accounting Report (8.02.09, REP2-060)** submitted at Deadline 2. This metric has been progressed with the Environment Bank.

2.3.64 The Biodiversity and Landscape Mitigation Strategy that must be submitted under **Requirement 5** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3, must contain the results of the biodiversity off-setting metric together with the value of off-setting, the nature of such off-setting and the mechanism for securing the off-setting value. The value cannot be determined until the final design of the Proposed Development, through **Requirement 2** of **Schedule 2** to the **dDCO**, has been approved by LBB. The Biodiversity and Landscape Mitigation Strategy that is submitted under **Requirement 5** must be substantially in accordance with the **Outline Biodiversity and Landscape Mitigation Strategy (7.6, Rev 1)** submitted at Deadline 3), which contains the minimum 10% net gain commitment. LBB is the approving authority for both the detailed design of the Proposed Development and

the Biodiversity and Landscape Mitigation Strategy, and will therefore be involved in approving the compensation proposals that come forward by the Applicant on the advice of the Environment Bank.

2.3.65 The Applicant has confirmed to LBB that it is keen for LBB to be involved in the Environment Bank site search process, such that opportunities most local to the REP proposals can be considered and, if suitable, brought forward.

2.3.66 **Section 1.2** of the **Biodiversity Accounting Report (8.02.09, REP2-060)** addresses the mitigation hierarchy, in the context that onsite opportunities for biodiversity enhancement will be very limited.

2.3.67 In careful consideration of the application of the Mitigation Hierarchy, the Applicant has been in discussion with the EA regarding the creation of Open Mosaic Habitat on the flood embankment within the REP Site. Extensive discussions have concluded that the EA remain concerned that *“the proposed mosaic habitat on the flood defence embankment will increase the risk of erosion and thus reduce the durability of the structure”*.

2.3.68 Given this outcome, the Applicant will no longer pursue provision of Open Mosaic Habitat on the flood embankment, and will instead seek appropriate compensation elsewhere within or off site, which will be demonstrated through the Biodiversity Metric calculations secured through **Requirement 5** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

Open mosaic habitat loss

2.3.69 As set out above, the **Biodiversity Accounting Report (8.02.09, REP2-060)** acknowledges that the onsite opportunities for biodiversity enhancement will be limited. Acknowledging the limited onsite space available, and implications of creating habitat on a flood protection embankment that have been outlined by the Environment Agency, the Applicant has proposed a biodiversity offsetting approach from the outset. This has been supported by Natural England as set out in the signed SoCG with them **(8.01.05, REP2-051)**, which confirms, at **Paragraph 2.3.23** that *‘the [Applicant’s] consideration of further mitigation and enhancement measures are appropriate’*.

2.3.70 The **Biodiversity Accounting Report (8.02.09, REP2-060)** (and the final calculation under Schedule 2, **Requirement 5** of Schedule 2 to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 include consideration of the value of the existing ‘wasteland’ habitat created as part of RRRF. Therefore, the granting of the REP DCO would address and appropriately account for any biodiversity consequences in relation to the measures required under an existing RRRF planning consent.

Pre-commencement activities

2.3.71 All proposed works were found to result in effects that were Not Significant to terrestrial biodiversity receptors. Given their comparable scale, any pre-

commencement works undertaken within the allowable scope would therefore also be Not Significant.

2.3.72 However, in respect of terrestrial biodiversity, **Requirement 4** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 requires the Applicant to submit to LBB for approval a pre-commencement biodiversity and landscape mitigation strategy which must include details of mitigation measures required to protect protected habitats and species during the pre-commencement works. The strategy must also set out the value (biodiversity units) of the habitats affected by the pre-commencement works and which will subsequently be combined with other habitat losses following detailed design under Requirement 5 (Biodiversity and Landscape Mitigation Strategy). In the unlikely event that the Applicant does not commence the Proposed Development and thereby trigger Requirement 5, Requirement 4 also requires the Applicant to deliver the restoration proposals and the timetable for such restoration.

2.3.73 In addition to matters secured under **Requirement 4** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 the Applicant has, in light of discussions at the Issue Specific Hearing on the draft Development Consent Order, agreed to implement a pre-commencement Code of Construction Practice and Construction Traffic Management Plan applicable to the scope of works being undertaken.

2.3.74 In respect of felling or lopping, the proposed Development is a Nationally Significant Infrastructure Project (NSIP) and requiring the Applicant to consult with the owner of the land before exercising the power is an unnecessary constraint that could impede the delivery of the NSIP. The Application has undergone extensive consultation, with the draft development consent order post submission the subject of s56 consultation and Examination.

2.3.75 In addition, the Applicant must comply with **Requirement 6** of the **dDCO** (Replacement planting for Work No 9). Given we presume that LBB's concerns relate to the Electrical Connection route rather than the REP site, **Requirement 6** would require the Applicant to submit details of any trees and shrubs that are to be removed during the construction of Work Number 9 and identify the replacement planting. These details must be submitted to LBB and approved prior to the construction of Work Number 9.

Electrical Connection route

2.3.76 The Applicant confirmed in their submission at Deadline 2 that the Electrical Connection route through Crossness LNR had been removed and as such the associated potential effects would no longer occur. A short length of the western verge of Norman Road lies within the LNR designation but comprises highway verge and is outside the Thames Water managed site and beyond the boundary ditch. The Applicant has previously confirmed in its response to the Thames Water Relevant Representation at **Paragraph 3.10.16 (8.02.03, REP2-055)** that “*any potential direct effects on water voles during construction of REP would be avoided through ensuring a 5 m offset of all construction work from ditches which may support water vole (except for minor localised works)*”. This would include the

chosen Electrical Connection route along Norman Road where it passes close to the outer ditch. A 5 m offset will be ensured through the CoCP, which itself is secured via **Requirement 11** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 which requires that the final CoCP submitted to and approved by the relevant planning authority is in substantial accordance with the **Outline CoCP**.

Potential for further mitigation

Local mitigation creation

- 2.3.77 The Applicant has provided clarity above on the approach in respect of biodiversity mitigation, through the implementation of a biodiversity metric approach, subsequent to exploring the limited opportunities available within the REP site. This is set out in the **Biodiversity Accounting Report (8.02.09, REP2-060)** submitted for Deadline 2. Further information has been submitted by the Applicant at Deadline 3 in the **Biodiversity Offset Delivery Framework (8.02.25)**.
- 2.3.78 **Requirement 4** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 requires the Applicant to submit to LBB for approval a pre-commencement biodiversity and landscape mitigation strategy.
- 2.3.79 **Requirement 5** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 secures the Biodiversity and Landscape Mitigation Strategy, which must contain the results of the biodiversity off-setting metric together with the value of off-setting, the nature of such off-setting and the mechanism for securing the off-setting value. The value cannot be determined until the final design of the Proposed Development, through Requirement 2 of Schedule 2 to the draft Development Consent Order, has been approved by LBB. The Biodiversity and Landscape Mitigation Strategy that is submitted under Requirement 5 must be substantially in accordance with the **Outline Biodiversity and Landscape Mitigation Strategy (7.6, Rev 1)** submitted at Deadline 3, which contains the minimum 10% net gain commitment. LBB is the approving authority for both the detailed design of the Proposed Development and the Biodiversity and Landscape Mitigation Strategy, and will therefore be involved in approving the compensation proposals that come forward by the Applicant on the advice of the Environment Bank.
- 2.3.80 The Applicant confirms that it intends to work with the Environment Bank to explore a range of options for providing the off-site biodiversity compensation. These will be presented to LBB as progress is achieved during the Examination phase.
- 2.3.81 In respect of measures within the REP site, the Applicant's submitted a **Design Principles** document (**7.4, APP-105**) sets out how the REP development will progress through the detailed design stage. Whilst the general potential for green roofs and walls in new developments is acknowledged by the Applicant, this has to be balanced against the design, maintenance and safety requirements of the Proposed Development. This is acknowledged in **Paragraph 2.6.26** of the **Design Principles (7.4, APP-105)** which states that *"The existing flood embankment will be the focus of onsite biodiversity gain, with any remaining opportunities within the final on site design being explored where possible. Any further necessary biodiversity*

net gain will be secured through offsetting through a mechanism secured through the final Biodiversity and Landscape Mitigation Strategy.”

- 2.3.82 **Design Principle DP 3.01** ensures that planting design is given due consideration within the constraints set out in the accompanying commentary.
- 2.3.83 The Applicant has not identified any potential within the site to provide wetland meadow habitat creation. Specific habitats will be sought where identified through the off-site biodiversity metric approach.

Joyce Green Quarry

- 2.3.84 The Joyce Green Lane quarry site lies within Dartford Borough and therefore Bexley Policy CS18 does not apply.
- 2.3.85 Notwithstanding this, the Applicant amended the area of the Order Limits at Deadline 2 relating to the Joyce Green quarry restoration site (the Restoration Site), reducing, as far as practicable, the area required for the installation of the Electrical Connection. Following this review, the revised Order Limits only retains several smaller areas of land within the Restoration Site. Open trenching and the working area would lie outside the position of current reptile fencing. On this basis the revised proposals would have a minimal effect on the reptile receptor site. In the unlikely event that the reptile fencing is removed at the time of construction, measures will be employed to avoid impacts to reptiles which may have moved from the receptor site into the construction area.
- 2.3.86 Adjacent to the River Darent the extent of area included is significantly reduced and will no longer affect the water vole receptor site. This is on the basis that the Applicant has taken into consideration the water vole receptor site and it will not be subject to above ground works (i.e. only a trenchless solution would occur at this location) and a five metre buffer will be maintained to fencing within that area. The agreed mitigation measures are captured in the **Outline Biodiversity and Landscape Mitigation Strategy** submitted at Deadline 3 (7.6, Rev 1). This approach was also set out in the Applicant's response to the Ingrebourne Valley Limited Relevant Representation submitted for Deadline 2 (**Section 5.6 of the Applicant's Response to Relevant Representations**) (8.02.03, REP2-054). The Applicant has informed Ingrebourne Valley Limited of these amendments and positive discussions are ongoing.

Anaerobic Digestion Emissions

- 2.3.87 As set out in **Section 11.9, Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**, the effects of emissions from the Anaerobic Digestion facility have the potential to affect a small area of the Crossness LNR and Erith Marshes SINC adjacent to the Anaerobic Digestion facility through changes to the habitats and an increase in dominant grass species with a subsequent reduction in broadleaved species. However, for the reasons set out in the **ES**, predicted effects to these designated areas of County/Metropolitan conservation importance are Not Significant. **Figures 7.9 and 7.10** of the **ES (6.2, APP-057 and APP-058)** present

the modelled distribution of NO_x deposition from the Anaerobic Digestion facility and demonstrate that dittander around the Cory Fields and Spanish stonecrop on the footpath to the east of REP do not fall within areas likely to receive elevated levels of NO_x from the Anaerobic Digestion facility.

2.3.88 The ES identifies the potential for cumulative effects to the Erith Marshes SINC from REP and the Thamesmead Industrial Estate extension. Following removal of the Electrical Connection route option from Crossness LNR/Erith Marshes SINC, there will be no direct effects to this designated area. Both REP and Land at the Eastern Thamesmead Industrial Estate Extension (10/00063/OUTEA) have potential to result in disturbance of habitats or species within Erith Marshes SINC. However, impacts from both schemes are on marginal areas, or habitats of lower ecological value, therefore cumulative impacts are unlikely to be significant to this designated area.

Bat Surveys

2.3.89 **Paragraph 11.7.25 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** fully acknowledges that *'habitats within the Crossness LNR are likely to be used by commuting and foraging bats'*. It also concludes that *'construction of REP will not sever any obvious commuting routes and habitat links for bats moving through the wider landscape will be maintained.'* Impacts to commuting or foraging bats could occur through disturbance from lighting during construction, however measures to minimise these impacts are included within the **Outline Biodiversity and Landscape Mitigation Strategy** to be submitted at Deadline 3 as set out in **Paragraph 11.9.7 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)**. The assessment of noise impacts have shown only minor increases to noise levels within Crossness Local Nature Reserve (see **Tables 11.7 and 11.10 of Chapter 11 Terrestrial Biodiversity of the ES (6.1 REP2-023)**) and therefore where bats roosting in the artificial roost, these minor increases in noise are such that there would be no disturbance to bats in such a way as to be likely to impair their ability to survive, breed, reproduce rear or nurture their young, hibernate or migrate; or to affect significantly the local distribution or abundance of bats. Therefore the only impacts which could arise to bats using the roost, would be through disturbance when foraging or commuting, and these have been addressed above. As such, evidence provided by bat surveys would not alter the assessment or proposed mitigation. The Applicant considers precautionary habitat compensation is not required.

DCO requirements

2.3.90 See **Appendix D** to this report which is the Applicant's response to LBB's track changes to the draft Development Consent Order.

Historic Environment

2.3.91 The Applicant notes that LBB has identified in paragraph 7.1 that there are no significant historic environment issues associated with the Proposed Development.

Areas of contention

- 2.3.92 The physical impact to the geoarchaeological deposits is limited to the pile foundations and bunker. This will result in a relatively small physical impact to the resource as a whole. The geoarchaeological deposits survive beyond the area of physical impact, differing therefore from archaeological deposits which have the potential to hold unique data that does not survive beyond the area of impact. A Minor Beneficial residual effect rather than negligible / minor adverse residual effect has been assigned for this reason.
- 2.3.93 The Applicant disagrees that the physical impact of the geoarchaeological deposits will result in the loss of heritage significance of the affected deposits, due to the fact that they survive undisturbed within the study site and the wider area. However, the Applicant accepts LBB's recommendation for the effect to be downgraded to Negligible, which does not affect the significance.
- 2.3.94 It should be noted that the Applicant has agreed a Statement of Common Ground with Historic England (AS-013) which states that Historic England agrees with the assessment conclusions reported in **Chapter 10 Historic Environment** of the **ES (6.1, APP-047)**.

Transport

Areas of contention

Maximising the use of the river

- 2.3.95 The Applicant notes and agrees with LBB's comment at paragraph 8.3 of its Written Representation, that the Proposed Development should be designed, implemented and operated to minimise road traffic and maximise use of the River Thames, which accords with REP's fifth key policy theme as identified in the **Applicant's Project and its Benefits Report (7.2, APP-103)**. **Requirement 14(1)** of **Schedule 2** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3 limits the maximum number of heavy commercial vehicles entering and leaving the delivering waste to the ERF and Anaerobic Digestion plant to 90 movements in, and 90 movements out per day. The Applicant therefore considers that maximum use of the River Thames for waste and material delivery has been demonstrated.
- 2.3.96 The **Transport Assessment (TA) (Appendix B.1)** of the **ES (6.3, APP-066)** as updated by **Appendix J** and **Appendix L (REP2-034 and REP2-064)** has been prepared in accordance with the agreed scoping and the response from LBB to the TA scoping and Preliminary Environmental Impact Report (PEIR), as well as through consultation with Transport for London (TfL). **Section 6.3** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)** identifies how relevant consultation has informed assessments.
- 2.3.97 The DCO Application responds appropriately to the Mayor's Transport Strategy through the implementation of an **Operational Worker Travel Plan, Appendix M** to the **TA** of the **ES (6.3, APP-066)**, secured by **Requirement 15** of the **dDCO (3.1,**

Rev 2) submitted at Deadline 3. Furthermore workforce Travel Planning initiatives are contained within a Construction Traffic Management Plan secured through **Requirement 13 of Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 and which must be substantially in accordance with the **Outline CTMP (Appendix L of Appendix B.1 Transport Assessment** to the **ES (6.3, REP2-064)**.

- 2.3.98 **Paragraph 3.3.10** of the **TA** of the **ES (6.3, APP-066)** references Policy T2 "Healthy Streets" of the Draft New London Plan and **Paragraph 3.3.20** of the **TA** of the **ES (6.3, APP-066)** references the principles of Healthy Streets within the Mayor's Transport Strategy. The implementation of workforce travel plans will assist with increasing healthy travel and minimising car borne travel during the construction stage and during operation. Furthermore, with its focus on transporting a large majority of waste by river into the operational REP (including from riparian Waste Transfer Stations), the Proposed Development greatly assists with the aspirations for Healthy Streets by removing freight movements from London's streets.
- 2.3.99 Prior to submission, the Applicant considered a range of potential opportunities to deliver construction materials by river. This included delivery of abnormal or other loads. These deliveries would be unable to use the existing waste/ash transport jetty, which can only handle International Organisation for Standardisation (ISO) containers and must maintain operational compliance and efficiency in respect of RRRF. The delivery of materials would therefore have required a new jetty or a temporary walkway across the intertidal area. These were discounted for environmental reasons, including after discussion with the Port of London Authority following the EIA scoping stage. The craneage required would also have had direct interaction with Crossness LNR, requiring areas of the reserve to be brought into the Order Limits for associated laydown. There would also have been potential disruption to FP3 the Thames Path.
- 2.3.100 In light of the above removal of river works, only ISO containers would be available as a potential opportunity to bring materials in by river. However, this would impinge on the normal operation of RRRF and the extent of materials that could take advantage of such a solution would be limited. The delivery of materials to site would not coincide with the peak construction worker phase and therefore the effects of 100% by road for the construction phase were found to be Not Significant, subject to measures set out in the **Outline CTMP (Appendix L of Appendix B.1 Transport Assessment** to the **ES (6.3, REP2-064)**). The **Outline CTMP (6.3, REP2-064)** sets out, at **Paragraph 4.3.4**, that *"The use of tugs on the River Thames will be explored and used where practical to transport construction materials and waste, which, if feasible, would help to reduce construction road traffic movements and emissions."* This existing provision in the **Outline CTMP (6.3, REP2-064)** is considered adequate to achieve the aims of the proposed wording from LBB. Regarding the assumption on construction worker trips being outside peak hours, the updated **Outline CTMP** submitted at Deadline 2 (**6.3, REP2-064**) makes it clear that the ES has assumed that all workers would arrive during the morning and evening highway network peak periods, whereas the reality is that the workers will arrive at different times with the construction working weekday starting at 07:00 and ending at 19:00 – as set out in **Paragraph 3.2.1** of the **Outline CoCP (6.1, Rev 2)**.

However, the Outline CTMP recognises that the precise arrival timings of the various workers will not be known until the main contractor has been appointed, with the detail then provided in the final CTMP that is to be submitted to LBB for approval under Requirement 13 of Schedule 2 to the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

2.3.101 Through discussion with TfL, the Applicant committed in the revised **Outline CTMP (6.1, Rev 1, REP2-064)** to significantly reduce the availability of workforce and visitor parking to 275 spaces (**Paragraph 5.3.1**) to ensure an appropriate modal split would be achieved. Further details, as anticipated by LBB in paragraph 8.6 of their WR, are confirmed as being delivered through the final CTMP, which is secured by **Requirement 13 of Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

Provision of a Delivery and Servicing Plan

2.3.102 The Applicant acknowledges that the potential for a Delivery and Servicing Plan was included in the PEIR. The Applicant has proposed significant restrictions in respect of operational waste movements in **Requirement 14(1) of Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3. Ancillary movements relate to deliveries such as lime, ammonia and Powder Activated Carbon, which are small in comparison to other movements. The overall movements (including waste import and export in the 100% by road scenario) were found to be Not Significant in **Chapter 6 Transport** of the **ES (6.1, REP2-017)** and **Appendix B.1**, the **TA** to the **ES (6.3, APP-066)**, and therefore there is no justification for a Delivery and Servicing Plan to be implemented for the operational phase of REP.

2.3.103 During the construction of REP and the Electrical Connection, delivery planning and management of the movement of construction materials and plant will be in the final submitted and approved CTMP/CTMPs which will be in accordance with the **Outline CTMP (Appendix L of Appendix B.1 Transport Assessment** to the **ES (6.2, REP2-064)**) and provisions in the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

Clarity on the Electrical Connection

2.3.104 At Deadline 2, the Applicant provided an update in the **Electrical Connection Progress Report (8.02.07, REP2-058)**, in respect of how UK Power Networks (UKPN) had undertaken an ongoing programme of work to refine the Electrical Connection to a single overall route. The final route lies predominantly within public highway where the works would be expected to be typical of those brought forward under the New Roads and Streetworks Act ("streetworks process").

2.3.105 At locations where drilling/boring or above-ground structures are most likely, these are likely to have a minimal effect on the operation of the public highway (comprising the offline cable trough structure at Norman Road, under the Network Rail assets at Cray Mill underbridge and at the River Darent). No extension beyond timescales for normal streetworks process is therefore anticipated.

Cumulative effects

- 2.3.106 The assessment of the construction period is included at **Paragraphs 6.9.2 to 6.9.96 of Chapter 6 Transport of the ES (6.1, REP2-017) and Section 6.4 of Appendix B.1 - Transport Assessment of Chapter 6 Transport of the ES (6.3, APP-066 (with Appendix J and L being submitted at Deadline 2, REP2-034 and REP2-064 respectively))**. These assessments include consideration of the potential cumulative traffic effects during the construction at the REP site and the Electrical Connection.
- 2.3.107 Further sensitivity assessments prepared to accompany the engagement process with TfL show that the junctions of Picardy Manorway with Yarnton Way/Eastern Way, Norman Road and Bronze Age Way/Anderson Way operate with spare capacity during the modelled year of 2022 (including growthed base line traffic, committed development and REP construction traffic). Sensitivity scenarios show that those junctions continue to operate with reserve capacity with more than 150% of REP construction traffic assigned to the network (**Table 2 of Technical Note TN007** dated 23 January 2019 appended to Technical Note TN009 (**Appendix G to the Applicant Response to the Relevant Representation**)) (**8.02.03, REP2-054**). As reported above, the reduced on-site parking provision will substantially reduce movements to and from the Main Temporary Construction Compound, further reducing the potential traffic impacts on Picardy Manorway and on Norman Road, during construction. The assessment of the traffic impacts during the construction of the REP site and the Electrical Connection show that a right turning facility on Picardy Manorway is not necessary.
- 2.3.108 As indicated in **Paragraph 2.6.1 of the Outline CTMP** submitted at Deadline 2 (**6.3, REP2-064**) coordination between the construction of the REP site and the Electrical Connection will be set out in the associated CTMP, secured through **Requirement 13 of Schedule 2 to the dDCO (3.1, Rev 2)** submitted at Deadline 3. As necessary the CTMP will identify how the construction programmes will align and the necessary temporary traffic management required. That document will reflect the temporary and transient nature of the construction of the Electrical Connection.

Stopping up of Norman Road (at its north end)

- 2.3.109 **Requirement 8(3) of Schedule 2 to the dDCO ((3.1, Rev 2)** submitted at Deadline 3 prevents the Applicant from exercising the powers in Article 14(1) (Permanent stopping up of streets) unless and until a plan showing the proposed layout for the termination of the highway has been submitted to and approved by the relevant highway authority. This provides satisfactory control for the highway authority over the turning arrangements. The **Applicant's Illustrative Circulation Plan (2.6, APP-013)** shows how one such arrangement could be achieved, which represents an improvement on existing turning arrangements at the end of Norman Road. The Applicant notes that this illustrative layout would accord well with LBB's suggestion that *"...it could be accommodated by a slight repositioning of the southernmost gate to the site on the eastern side of Norman Road and by adjusting the kerb radii proposed in front of that gate"*. LBB refer to a *"forward side-turn manoeuvre"*, which the Applicant interprets to mean a T-shape turning head or similar which can be used to turn a vehicle in forward and reverse gears.

DCO requirements

2.3.110 See **Appendix D** to this report which is the Applicant's response to LBB's track changes to the draft Development Consent Order. **Appendix D** to this report.

Ground conditions

Areas of contention

2.3.111 LBB has confirmed in its WR that the two areas of contention set out in their Relevant Representation have been resolved as follows:

- In respect of borax wastes at the data centre site: *"The investigations required by paragraph 10 of Schedule 2 (Ground conditions and ground stability) of the DCO are deemed sufficient for the use of this land as a contractors' area with no intrusive works proposed in this location"* (LBB WR paragraph 9.2 bullet 1); and
- In respect of groundwater and surface waters impacted by contamination: *"It is considered adequate that these issues are dealt with via the planning conditions for the Data Centre site, 15/02926/OUTM, and the investigations required by paragraph 10 of Schedule 2 (Ground conditions and ground stability) of the DCO"* (LBB WR paragraph 9.2 bullet 2).

Potential for further mitigation

2.3.112 In respect of betterment of groundwater quality in the data centre/construction compound, LBB has stated *"It is therefore considered satisfactory for any requirements for groundwater quality improvements to be identified and addressed through a scheme of investigations at the REP site."* (LBB WR paragraph 9.3).

2.3.113 The Applicant confirms that LBB will be the relevant planning authority as identified in Schedule 2 Requirement 10 for Works Nos 1-8, and will therefore approve the relevant schemes of proposed investigations.

DCO requirements

2.3.114 See **Appendix D** to this report which is the Applicant's response to LBB's track changes to the draft Development Consent Order.

Townscape and visual

Key Issues

2.3.115 In their opening comments on 'Key Issues', LBB refer to a clarification on incremental and combined effects. In respect of this it is noted that the Applicant has confirmed that an adverse cumulative combined visual effect which is a Moderate level of significance during construction and on operation from SA-1-East would occur.

2.3.116 Furthermore, the Applicant has confirmed that an adverse cumulative combined visual effect which is a Minor level of significance (and therefore not significant) during construction would occur; and that a beneficial cumulative combined visual effect which is a Moderate level of significance on operation would occur.

2.3.117 The Applicant has also confirmed that an adverse cumulative combined visual effect which is Moderate level of significance during construction only from VP7 Crossness Conservation Area and VP8 Lesnes Abbey would occur.

Areas of contention

2.3.118 The Applicant notes that LBB has confirmed that in respect of the susceptibility of the Crossness Conservation Area *“GLVIA3 enables flexibility in approach and as a result, methods of assessing susceptibility vary, but this appears to be a logical train of thought based on the Applicant's methodology and is accepted as a reasonable explanation for the judgement”*.

2.3.119 In respect of the other former points of contention regarding the indirect effect on character of the Conservation Areas, the Applicant notes that LBB has acknowledged a previous clarification and therefore this matter is now resolved.

Noise and vibration

Areas of contention

2.3.120 The baseline sound survey was undertaken following discussions on locations and timings of the survey with the Environmental Health Officer at LBB. The measurements were undertaken during the middle of the night between 01:00 and 03:00 which are considered to be the quietest periods of the night. Therefore it is considered that the measurement intervals are suitable to inform the assessment. With regards to utilising the lowest of the 15 minute measurements undertaken, BS 4142:2014 states that the objective in determining the background level to use is not simply to ascertain a lowest measured background sound level but rather to quantify what is typical during particular time periods. Therefore, the Applicant does not agree that the lowest 15 minute measurement needs to be used, or that a 3 dB correction needs to be applied.

DCO requirements

2.3.121 See **Appendix D** to this report which is the Applicant's response to LBB's track changes to the draft Development Consent Order.

Flood risk and water resources

Areas of contention

2.3.122 The sensitivity of Crossness LNR is fully acknowledged within the ES, including the designation of a wider area as Metropolitan Open Land (MOL). In light of the amended Application boundary submitted at Deadline 2, which confirmed that the Electrical Connection route would follow Norman Road, development within the

Crossness LNR has been removed entirely except for a short length of highway verge immediately adjacent to Norman Road. Only a small proportion of MOL, in its southeast corner at the junction between Norman Road/Picardy Manorway, might be affected. This would only occur if UKPN need to utilise a crossing on the west side of the existing highway bridge. Adequate controls are in place within the **Outline CoCP (7.5, REP2-046)** to control risks arising from works adjacent on Norman Road that might impinge on a small area of Crossness LNR or MOL. The Applicant has committed to providing a minimum of 10% biodiversity net gain and has commissioned the Environment Bank to assist with its delivery, which will be secured via **Requirement 5: Biodiversity and Landscape Mitigation Strategy** at Schedule 2 of the **dDCO (3.1, Rev 2)** submitted at Deadline 3. A Biodiversity Metric is included in the **Biodiversity Accounting Report (8.02.09, REP2-060)** submitted at Deadline 2 and a further note on Biodiversity Offset Delivery Framework (8.02.25) submitted at Deadline 3.

- 2.3.123 The Applicant has confirmed to LBB that they are keen for LBB to be involved in the Environment Bank site search process, such that opportunities local to the REP proposals can be considered and, if suitable, brought forward.
- 2.3.124 In respect of discharges to watercourses falling under the remit of the EA, the **dDCO (3.1, Rev 2)** submitted at Deadline 3 affords Protective Provisions to the EA in Schedule 10.
- 2.3.125 LBB has confirmed to the Applicant that LBB is satisfied in respect of the Thames flood defences, if the Applicant continues to discuss the outcome of the flood defence condition survey with the EA and the EA and the Applicant come to agreement. The Applicant continues to make progress with the EA on this matter and submitted a draft SoCG at Deadline 2. **Requirement 17** of **Schedule 2** of the **dDCO (6.1, Rev 2)** ensures that a river wall condition survey is undertaken and which is submitted to and approved by the relevant planning authority (in consultation with the Environment Agency).
- 2.3.126 The Applicant reported in its **Flood Risk Assessment (FRA) (5.2, APP-033)** at **Paragraphs 7.1.4** and **7.1.5** that:

“The report enclosed in Appendix G [Drainage Design Strategy] notes that the feasibility of employing infiltration drainage solutions is constrained by (i) the high water table and (ii) the nature of the industrial processes within the REP site and associated risk of groundwater contamination.

The surface water management strategy has therefore been designed such that the rate of surface water run-off leaving the site and entering the adjacent watercourse network is limited to the 1 in 100 year greenfield rate of 35.3 l/s.”

- 2.3.127 The Applicant has no further comment to make in light of its assessment of the potential for infiltration techniques to be deployed.

Potential for further mitigation

- 2.3.128 The Applicant set out in **Section 7** of the submitted **FRA (5.2, APP-033)** the basis of the Surface Water Management Strategy. The requirement to submit details under **Requirement 9** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3 will ensure that the Surface Water Management Strategy is implemented, taking account of any final changes in respect of impermeable areas and pollutant loadings. The Applicant considers that the measures set out in the **FRA (5.2, APP-033)**, secured by the **dDCO (3.1, Rev 2)** submitted at Deadline 3 are adequate.
- 2.3.129 In respect of Crossness LNR specifically, the works within this area have been removed entirely from the Application boundary as a result of the selection of a single Electrical Connection route set out by the Applicant at Deadline 2 (save for a short length of public highway verge outside the main Thames Water managed reserve). The **ES, FRA (5.2, APP-033)** and **dDCO (3.1, Rev 2)** submitted at Deadline 3 adequately consider and provide protection for the remaining potential surface water effects at Crossness LNR.
- 2.3.130 The Applicant has committed to providing a minimum of 10% biodiversity net gain and has commissioned the Environment Bank to assist with its delivery, which will be secured via **Requirement 5** at **Schedule 2** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3. A Biodiversity Metric is included in the **Biodiversity Accounting Report (8.02.09, REP2-060)** submitted at Deadline 2.
- 2.3.131 In respect of Flood Risk Activity Permits, these are disapplied through Article 6(2) of the **dDCO (3.1, Rev 2)** submitted at Deadline 3. However adequate protection is provided to the EA through the Protective Provisions in **Schedule 10** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

DCO requirements

- 2.3.132 In relation to piling, measures in respect of flood risk and watercourses are adequately addressed in **Paragraph 4.9.3** of the **Outline CoCP (7.5, REP2-046)** which states:
- “The provision of a Foundation Works Risk Assessment (FWRA) would be undertaken by the Contractor once the proposed foundation solutions are known. This would be prepared in accordance with EA guidance ‘Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination’ (EA, 2001).”*
- 2.3.133 The preparation of a protocol for flood warning and a flood incident management plan were addressed in **Requirement 11(1)** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3.
- 2.3.134 Protection of the Thames flood defences is understood to have been addressed to the satisfaction of LBB as set out above.
- 2.3.135 The Applicant notes LBB's comments in respect of the Water Resources Act 1991 and the Environmental Permitting (England and Wales) Regulations 2016. The

Applicant is in discussions with the EA in respect of the draft Development Consent Order and the Protective Provisions contained in Schedule 10.

Compulsory acquisition issues

West Street Open Land & Erith Playhouse: 06/05

2.3.136 Parcel 06/05 was removed from the Application boundary in the Applicant's submission for Deadline 2, in light of the reduction to a single Electrical Connection route. See **Land Plans (REP2-003)** and the **Electrical Connection Progress Report (REP2-058)**.

Jolly Farmers: 12/02

2.3.137 Parcel 12/02, being public open space, was removed from the Application boundary in the Applicant's submission for Deadline 2, in light of the refinement of the Electrical Connection route at this location. See **Land Plans (REP2-003)** and the **Electrical Connection Progress Report (REP2-058)**.

South of Thames Road (Highway land): 12/05 & 12/08

2.3.138 The extent of Parcel 12/05 required for the works was reduced by the Applicant in its submission for Deadline 2, see the changes to the Land Plans since the time of the original submission (2.1, **APP-007**) and (2.1, **REP2-003**) submitted at Deadline 2. This land was removed from the Application boundary following further landowner engagement and further investigation by UKPN. However, for the avoidance of doubt, it is noted by the Applicant that the public highway does not extend to the full width of parcel 12/05 as shown in the extracts in Figures 1 and 2 below. The Applicant's boundary is intended to generally incorporate only the width to existing highway street lighting which lies outside the public highway according to plans provided by LBB.

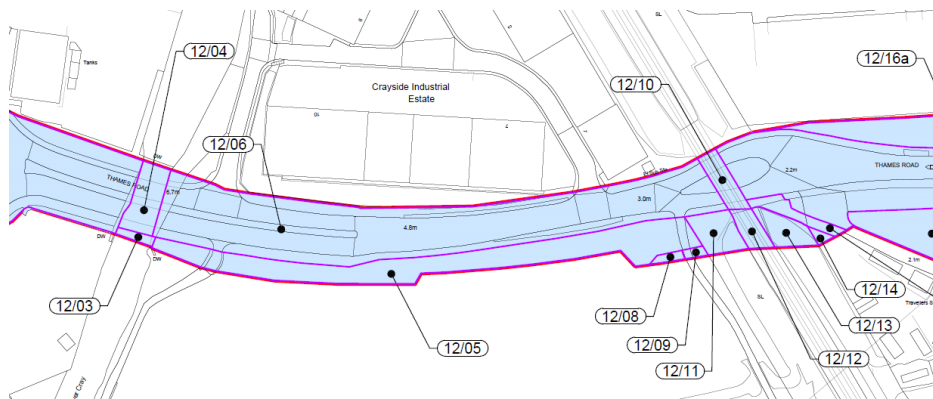


Figure 2.1: Extract from Land Plans (Rev 1)

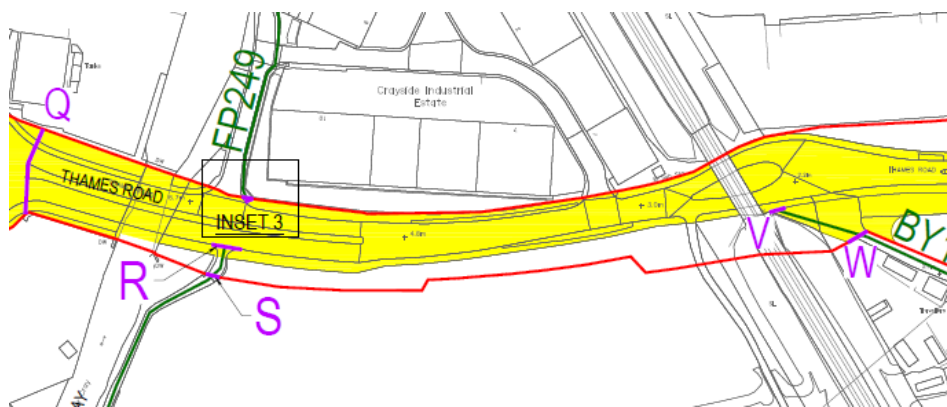


Figure 2.2: Extract from Access and Rights of Way Plans (Rev 1)

- 2.3.139 An option agreement that addresses the matters raised by LBB related to this parcel has been issued to LBB. The content of the agreement proposed will be progressed through further discussion with the LBB.
- 2.3.140 The details of the interface between the works and LBB assets has been discussed through landowner meetings. The intention is to continue these discussions as the proposals for the scheme progresses.

Thames Road Depot: 12/16

- 2.3.141 The extent of Parcel 12/16 required for the works was reduced by the Applicant in its submission for Deadline 2, such that this now comprises two separate parcels 12/16 and 12/16a. This arises from the Applicant, having taken account of discussions with LBB, removing the private entrance to the depot and the edge of the parking area. Therefore, works in proximity to the entrance of the depot would only occur within the public highway and access into the depot should not be unduly affected.

2.3.142 An option agreement addressing the matters raised in by LBB related to this parcel has been issued to LBB. The content of the agreement proposed will be progressed through further discussion with LBB.

2.4 London Borough of Tower Hamlets

Introduction

2.4.1 The London Borough of Tower Hamlets (LBTH) has raised two key points about the Proposed Development within its Written Representation (WR). These relate to:

- Air quality effects from river transport. In LBTH WR, LBTH confirms that it has been in discussions with the Applicant, and is now satisfied that the air quality effects from the barges and tugs would not be significant due to the location of the barges and tugs in the middle of the River Thames providing adequate separation distance from residential receptors. In addition, LBTH confirms that it is satisfied that even when the barges and tugs are in one location for a short period of time, this would not give rise to high concentrations at shore-side receptors; and,
- Air quality and traffic effects from road transport.

2.4.2 Our response covers each of these issues in turn below.

Response

Air Quality and Transport – River Transport

2.4.3 LBTH confirms in its WR that it no longer has any concerns relating to barges and tugs on air quality and is satisfied with the Applicant's response. The Applicant welcomes LBTH's conclusions in this regard.

Air Quality and Transport – Road Transport

2.4.4 The EIA tested different operational scenarios for waste transport comprising a 100% by road (worst case) scenario, as well as a 100% by river scenario. LBTH has raised concerns regarding potential air quality effects from road traffic and potential impacts on the road network within LBTH, should the 100% by road scenario be realised.

2.4.5 **Paragraph 7.9.13 of Chapter 7 Air Quality of the Environmental Statement (ES) (6.1, REP2-019)** reports the assessment of the potential effects on air quality from road traffic associated with the Proposed Development. The predicted concentrations of NO₂, PM₁₀ and PM_{2.5} are presented in **Appendix C.1 Traffic Modelling of the ES (6.2, REP2-036)** and have incorporated the 100% by road scenario into the model. The assessment findings show the magnitude of impact is Negligible at all locations and road traffic impacts on local air quality are therefore considered not significant.

2.4.6 In respect of transport and highways impacts on the road network within LBTH, the EIA tested different operational scenarios for waste transport comprising a 100% by road (worst case) scenario, as well as a 100% by river scenario. As confirmed in **Paragraph 6.13.4 of Chapter 6 Transport of the ES (6.1, REP2-017)**, no significant effects on traffic were identified for either scenario.

- 2.4.7 Notwithstanding the ES conclusions, the Applicant intends to maximise the use of the river and its existing infrastructure and fleets of barges to operate REP. To seek to minimise potential effects of road traffic during the operational phase of REP, the updated **draft Development Consent Order (dDCO) (3.1, Rev 2)** submitted at Deadline 3, includes a Requirement in **Schedule 2** (see **Requirement 14**). This Requirement restricts the number of two-way vehicle movements made by heavy commercial vehicles delivering waste to the Energy Recovery Facility (work number 1A) and the Anaerobic Digester (work number 1B) at REP during the operational period to a maximum of 90 vehicles in and 90 vehicles out per day, save in circumstances where there is a jetty outage. The restriction will in turn reduce the emissions from additional road traffic arising from the Proposed Development, further mitigating the already not significant effects on air quality.
- 2.4.8 It is considered that the addition of **Requirement 14** to the **dDCO (3.1, Rev 2)** addresses LBTH's concerns regarding potential air quality and traffic impacts related to road in the Borough and reaffirms that a 100% by road scenario will not occur under normal operating conditions.

3 Statutory Organisations

3.1 East London Waste Authority

Introduction

3.1.1 East London Waste Authority (ELWA) has raised four areas of concern within their Written Representation (WR). These relate to:

- Distribution of Energy from Waste (EfW) Facilities;
- Sources of Waste;
- River Transport; and
- Heat Distribution.

3.1.2 This response covers each of these issues in turn below.

Distribution of EfW Facilities

3.1.3 First, the Applicant welcomes the ELWA's comment that it *"does not contest or object to this decision [the Examining Authority's conclusion that the need for REP is set out in National Policy Statements EN-1 and EN-3]."*

3.1.4 However, ELWA questions the appropriateness of siting Riverside Energy Park (REP) adjacent to an existing waste management facility.

3.1.5 The Applicant considers the location of REP to be highly suitable for this type of development, optimising the use of an existing site and the associated jetty and wider River Thames network. In deciding upon the location for REP, the Applicant has had regard to factors such as those described in **Section 2.5** of **NPS EN-3** which sets out factors influencing site selection in relation to 'Biomass and Waste Combustion' facilities.

3.1.6 The REP site enables a site, already in waste management use, to be optimised, incorporating complementary low carbon/ renewable energy generation and storage technologies and expanding the opportunities for river transport.

3.1.7 The REP site lies within designated Strategic Industrial Land and is well located close to the major redevelopment proposed at Thamesmead, providing demonstrated potential for district heating, with the added societal benefits of this provision servicing a social housing development. All these site attributes are supported in **Policy SI8 (B.3)** of the **Draft London Plan**. A detailed commentary on the suitability of the site is set out in **Appendix A** of the **Statement of Reasons (4.1, Rev 1, REP2-008)**, which details the REP site's benefits as follows:

- the Applicant's existing land ownership and ability for land assembly;

- the ability to optimise existing river transport infrastructure that is already established for waste and material delivery and export;
- the ability to optimise a location that is already in low carbon and waste management use (including the ability to share infrastructure with RRRF, thereby reducing the footprint of REP);
- the use of a brownfield site that is adequate to accommodate REP;
- proximity to the necessary electrical connection;
- the good potential for district heating;
- the location is such that there are no significant adverse effects on the sensitive residential and environmental receptors; and
- the site is promoted in policy.

3.1.8 Finally, REP is located in London and as demonstrated in **The Project and its Benefits Report (PBR) (7.2, APP-103)**, London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be operational after 2025. REP is demonstrated to provide the residual waste treatment capacity required by the capital in order to meet self-sufficiency and zero carbon city priorities set out in policy.

Sources of Waste

3.1.9 REP is a 100% commercially-funded venture and is not tied to long term local authority municipal contracts. Therefore, the origin of waste for disposal at REP cannot be confirmed at this time. ELWA's WR focusses on the management contracts for local authority collected waste (LACW). As set out in **PBR (7.2, APP-103)** (not least at **Paragraph 4.2.44**):

"REP is not reliant on any one local authority contract. It is a merchant facility, meaning that it would offer its services within the market. REP is available to receive those wastes that are not recycled from a range of customers, rather than operating as a fixed element within a single waste management contract. The residual C&I market has historically been underserved and REP represents private investment to bridge that gap."

3.1.10 Appendix 1 to the ELWA WR indicates that much of London's LACW continues to be exported as RDF from the capital. As noted at **Paragraph 1.5.14** of the **PBR (7.2, APP-103)**, this demonstrates the significant gap in available infrastructure within London. Both landfill and fuel export to mainland Europe pose risks to long term sustainable waste management through uncertain future available capacity and environmental harm. REP provides the opportunity to provide that sustainable waste management solution in London, funded by private investment.

River Transport

- 3.1.11 The Applicant has a long history as a river-based logistics company and a proven track record and expertise in river logistics. It also has an imperative to maximise the use of the river to transport waste. The Applicant operates a network of riparian waste transfer stations along the River Thames (Smugglers Way - Wandsworth, Cringle Dock – Battersea, Walbrook Wharf- City of London and Northumberland Wharf – Tower Hamlets). The Applicant also has permission for an additional waste transfer station facility at the Port of Tilbury adjacent to the Incinerator Bottom Ash (IBA) processing facility. These facilities have the capacity (under existing permits and permissions) to handle the residual waste that would be transported to REP for recovery.
- 3.1.12 The Applicant has sufficient capacity within its existing river-based infrastructure to manage the proposed tonnage throughput from REP. However, as a river logistics company, the Applicant will continue to investigate commercial opportunities for new river-based infrastructure.
- 3.1.13 ELWA provides a commentary relating to road-based river crossings and, what it considers, the potential increased burden REP could place on the local road network and the environment. The Applicant's existing waste transfer stations are split between locations being both to the north and south of the river. The currently consented but undeveloped waste transfer station at the Port of Tilbury is also north of the river. The Environmental Statement has made an assumption, based on the available information when the Environmental Impact Assessment was being carried out, as to the where the waste would be sourced from for REP. The Applicant has split that waste both north and south of the river, based on available capacity at the waste transfer stations, and indeed at the Applicant's future waste transfer station at the Port of Tilbury. In any event, the Applicant has agreed to restrict the number of road movements to the ERF, and Anaerobic Digestion plant, to 90 in and 90 out per day.
- 3.1.14 In order to address such potential concerns, the EIA tested different operational scenarios for waste transport comprising both a 100% by road (worst case) scenario as well as a 100% by river scenario. As reported in **Paragraph 6.13.4 of Chapter 6, Transport** of the **ES (6.1, REP2-017)**, no significant effects on traffic, highways capacity or the river were identified for either scenario.
- 3.1.15 **Paragraph 7.9.13 of Chapter 7, Air Quality** of the **ES (6.1, REP2-019)** reports the assessment of the potential effects on air quality from road traffic associated with the Proposed Development. The assessment findings show the magnitude of impact is Negligible at all locations and road traffic effects on local air quality are therefore considered not significant.
- 3.1.16 The Applicant intends to use the river and its existing infrastructure and fleet of barges to operate REP. This supports Policy 17 of the Mayor's transport strategy,

which seeks "...the transfer of freight from roads to river in the interests of reducing traffic levels and the creation of Healthy Streets"¹³.

- 3.1.17 As referred to above, to minimise potential effects of road traffic during the operational phase of REP, the updated **draft Development Consent Order (dDCO) (3.1, Rev 2)** submitted at Deadline 3, includes a Requirement (**Requirement 14**) that restricts the number of two-way vehicle movements made by heavy commercial vehicles delivering waste to the Energy Recovery Facility, and the Anaerobic Digestion plant at REP. The restriction will, in turn, reduce the emissions from additional road traffic arising from the Proposed Development, further mitigating the already not significant effects on air quality.
- 3.1.18 The Applicant agrees with ELWA in relation to it not necessarily being effective or efficient to transport all waste to REP by river. Particularly waste generated from businesses in and around Bexley. It is for this reason **Requirement 14** of the **dDCO (3.1, Rev 2)** mentioned above, allows for some flexibility with a limited number of movements transporting waste to be delivered to REP via the road network.

Heat Distribution

- 3.1.19 ELWA notes that the existing RRRF at Belvedere does not currently export heat and therefore questions the demand for heat from REP. The heat demand investigation, presented in **Section 6** of the **Combined Heat and Power Assessment (5.4, APP-035)**, and further clarified in the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** identifies a total demand of approximately 8,300 GWh/annum within 10 km of the REP site, which is located within a Heat Network Priority Area. After screening, two principal heat network options exist, of which the Thamesmead regeneration programme offers the most favourable solution. To fully satisfy the proposed 20,000 dwellings and associated commercial premises, heat supply from both REP and RRRF is required. Businesses located on Burt's Wharf represent a significant volume of surplus heat demand, as determined by the BEIS UK CHP Development Map tool and heat demand benchmarking in line with industry best practice.
- 3.1.20 ELWA highlighted the presence of the Crossness Sewage Treatment Works (STW) as a potential heat source and therefore questions the demand for heat from REP. The Crossness Sewage Treatment Works (STW) incinerator ceased operations in 2018, as reported on **Pages 6 and 9** of **Thames Water's Interim Report** and Consolidated Financial Statements 2018/19¹⁴. There is therefore no prospect for heat provision from the incinerator.
- 3.1.21 The Crossness STW underwent a significant expansion and upgrade, which was completed around 2014. A planning report¹⁵ submitted in support of the respective upgrade works provides a technical description of the associated energy generation

¹³ Mayor's Transport Strategy, Mayor of London, March 2018.

¹⁴ <https://corporate.thameswater.co.uk/-/media/Site-Content/Thames-Water/Corporate/AboutUs/Investors/Thames-Water-Interim-Report-2018-19.pdf>

¹⁵ https://www.london.gov.uk/sites/default/files/PAWS/media_id_113654/crossness_sewage_treatment_works_report.pdf

infrastructure installed as part of the upgrade and states that biogas produced in the anaerobic digestion process “...will be used to feed three 1.4MWe CHP engines (4.2MWe total capacity). Power from the engines will be used within the Crossness STW. Heat from the CHP will be used in the processes. The high grade heat will be used to raise steam for the thermal hydrolysis plant (THP). The residual heat from the THP process then maintains the digestion tanks at the optimum temperature”. In the same document, Thames Water Utilities Ltd (TWUL) responds to a request regarding availability of surplus heat as follows: “TWUL has provided additional information to indicate that no surplus heat would be available after accounting for process requirements. In fact, the applicant envisages that the low-temperature hot water generated by the CHP plant would be used to heat the final effluent used for sludge dilution and polyelectrolyte make up. As such, there is unlikely to be any residual heat available for export off site”.

- 3.1.22 In the development of the **Combined Heat and Power (CHP) Assessment (5.4, APP-035)** for REP, a review of point heat sources within 10km of the REP site was carried out and the results are presented in **Section 6.9.2** of the **CHP Assessment (5.4, APP-035)**. The review drew on the National Heat Map (commissioned by DECC and subsequently adopted by BEIS), which did not identify Crossness STW as a point heat source.
- 3.1.23 ELWA notes that the Energy Recovery Facility (ERF) element of REP would potentially serve as a back-up to any heat exported from RRRF and states that ‘...the RRRF has three separate boilers, and only one of these would ever be taken offline at a time for routine maintenance’.
- 3.1.24 The **CHP Assessment (5.4, APP-035)** submitted to accompany the DCO application does not explicitly state that heat export from the ERF at REP would serve as a back-up to heat offtake from RRRF. Rather, the CHP Assessment presents an independent review of heat export opportunities which could be served by REP and highlights, in **Section 6.9** of the **CHP Assessment (5.4, APP-035)**, the opportunity for synergy between RRRF and REP. In particular, connection of both facilities to a heat network could increase the volume of heat that could be delivered and would lessen the reliance on fossil fuelled back-up boilers and associated carbon emissions, the extent to which would be dependent on realised network growth and the preferred back-up and thermal storage strategy. These variables will be clarified as a scheme is developed further.
- 3.1.25 There is a need for common systems outages (requiring all three boilers to be taken offline) at least every two years. There is also potential for an unplanned shutdown of the entire facility, although measures are taken to minimise this occurrence through a preventative maintenance regime. Therefore, there will be a need for provision of back-up heat supply. However, and as demonstrated in the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**, there is a need for heat supply from both REP and RRRF.
- 3.1.26 ELWA also recommends that a district heating system should have an independent back-up gas boiler and thermal stores to supply heat in the event of a failure of a

primary heat source and also suggests that Crossness STW could act as a back-up heat supply to RRRF should one be required.

- 3.1.27 The Applicant agrees in principle that back-up boilers are best located in close proximity to heat consumers to minimise the likelihood that a single event disrupts supply from both the primary and back-up heat sources, and to minimise heat losses resulting from heat generated by fossil fuel sources. However, the challenges of identifying suitable locations and securing consent for sites in densely populated areas often outweigh the potential drawbacks associated with a co-location approach. Given the scale of the heat network under consideration in the region, a combination of centralised and distributed back-up plant may offer an optimised strategy. In any case, there are carbon savings to be made if one of the ERFs is able to offer back-up heat, thereby displacing emissions associated with conventional fossil fuelled back-up boiler plant.
- 3.1.28 This assertion that Crossness STW could act as a back-up heat supply for RRRF is refuted in this response.
- 3.1.29 ELWA suggests that “*..concentrating heat sources in the manner that is proposed at Belvedere would significantly increase the capital costs of new district energy networks because of the need for longer-distance connections to distribute the heat to other neighbourhoods*”.
- 3.1.30 As set out in the heat demand investigation, presented in **Section 6** of **CHP Assessment (5.4, APP-035)**, the Applicant considers opportunities for heat export to potential consumers located up to 10 km from the REP Site. This search radius is specified in Environment Agency (EA) CHP Ready Guidance, noting that this distance is appropriate for a plant of the capacity proposed, bearing in mind also that heat losses from modern, well insulated low temperature heat networks are relatively low. To deliver the most economically viable scheme, the **CHP Assessment (5.4, APP-035)** prioritises heat demands located in closer proximity to the REP site. The preferred network option, presented in **Section 6.5.3** of the **CHP Assessment (5.4, APP-035)**, would connect prospective new housing and commercial developments to the west of the REP site, all of which are located within 4.7 km of the REP Site.
- 3.1.31 ELWA questions the feasibility of distributing heat to the north of the River Thames. The Applicant agrees that the River Thames presents a major, likely insurmountable (on the basis of prohibitive costs), challenge for routing of district heating pipes. As part of the heat demand investigation, a screening assessment was carried out, as detailed in **Section 6.5.2** of the **CHP Assessment (5.4, APP-035)**, to discount potential heat consumers which are unviable to connect. This screening exercise includes potential heat consumers located to the north of the River Thames. Two substantial sized heat network options are presented in the CHP Assessment.

3.2 Environment Agency

Introduction

3.2.1 The Environment Agency (EA) has raised five key points about the Proposed Development within their Written Representation (WR). These relate to:

- Thames Tidal Flood Defence;
- Open Mosaic Habitat;
- Flood Risk Activity Permit Area (FRAPA);
- Protective Provisions; and
- **Draft Development Consent Order (dDCO).**

Thames Tidal Flood Defence

3.2.2 The EA has confirmed that the Applicant has *“demonstrated that future raisings in line with the Thames Estuary 2100 Plan are possible once REP has been constructed”*. This is also reflected in **Paragraph 2.2.1** of the draft **Statement of Common Ground (SoCG)** between the Applicant and the EA, submitted at Deadline 2 (**8.01.03, REP2-049**).

3.2.3 Final versions of drawings **172067-DC-XX-XX-SK-C-110** to **172067-DC-XX-XX-SK-C-113** are attached to **Appendix A** of the advanced draft **SoCG (8.01.03, REP2-049)**.

Open Mosaic Habitat

3.2.4 In careful consideration of the application of the Mitigation Hierarchy, the Applicant has been in discussion with the EA regarding the creation of Open Mosaic Habitat on the flood embankment within the REP Site. Extensive discussions have concluded that the EA remain concerned that *“the proposed mosaic habitat on the flood defence embankment will increase the risk of erosion and thus reduce the durability of the structure”*.

3.2.5 Given this outcome, the Applicant will no longer pursue provision of Open Mosaic Habitat on the flood embankment, and will instead seek appropriate compensation elsewhere within or off site, which will be demonstrated through the Biodiversity Metric calculations secured through **Requirement 5** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

Works exclude from the Flood Risk Activity Permit Area

3.2.6 The EA has noted that *“we are looking to discuss with the Applicant how other works which fall outside of the definition of ‘a building’ can be controlled to ensure that materials that could create a risk of damage to the flood defence structure are not stored in the FRAPA”*.

3.2.7 The Applicant has proposed the following wording to the EA for inclusion as a new requirement:

"In respect of the area defined by the red dotted line annotated as '16m FRAP Line' on the FRAPA drawing:-

[a] no part of Work No. 1E and Works 5 must be constructed within that area; and

[b] no hazardous material that could cause material damage to the flood defence structure must be stored within that area during both the construction of and operation of the authorised development".

3.2.8 This wording has been included as **Requirement 23** in **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3. The 'FRAPA drawing' has been defined in **Article 2(1)** to the **dDCO (3.1, Rev 2)**. The Applicant is in continued discussions with the EA in order to reach an agreement on the wording of this new **Requirement 23** and will provide the Examining Authority with updates during the course of the Examination.

Protective Provisions

3.2.9 The EA has stated that negotiations on the Protective Provisions are taking place.

3.2.10 The Applicant can confirm that the Protective Provisions are being considered and that the Applicant will continue to liaise with the EA to reach an agreement before the end of the Examination and will provide the Examining Authority with updates during the course of the Examination.

Draft Development Consent Order

3.2.11 The EA has requested that 3 additional requirements are added to the dDCO.

Confirmation of Finished Floor Levels

3.2.12 The EA requested that a requirement is placed in the dDCO to specify the finished floor levels of the Main REP Building.

3.2.13 The Applicant can confirm that the finished floor level of the Main REP Building will be set no lower than 2.97 m AOD as specified within **Table 3.1** of the **Flood Risk Assessment (5.2, APP-033)**. **Requirement 24** has been inserted into **Schedule 2** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3. The Applicant is in continued discussions with the EA in order to reach an agreement on the wording of this new **Requirement 24** and will provide the Examining Authority with updates during the course of the Examination.

Restrictions within the FRAPA

3.2.14 As discussed in **Paragraph 3.2.8** above, to satisfy the EA's concern regarding potential development within the FRAPA, new **Requirement 23** has been included in **Schedule 2** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

Flood Condition Survey & Remediation Requirements

3.2.15 The EA has requested that the flood defence condition survey and required remediation is secured within the dDCO. To secure the flood defence condition survey and remediation requirements of the authorised development, the Applicant has inserted **Requirement 17** into **Schedule 2** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3, which states that:

- (1) *"No part of Work Number 1 may commence until a river wall condition survey on those parts of the river wall within the order limits has been submitted to and approved by the Environment Agency.*
- (2) *The river wall condition survey submitted pursuant to sub-paragraph (1) must where appropriate identify any remedial works required to bring the tidal flood defence up to a good standard considering a design life of 100-years.*
- (3) *The remedial works required to bring the defence up to a good standard identified pursuant to sub-paragraph (1) must be carried out within [3 years] of the date that the condition survey is approved under sub-paragraph (1)."*

3.2.16 The Applicant is in continued discussions with the EA in order to reach an agreement on the precise wording of Requirement 17 and will provide the Examining Authority with updates during the course of the Examination. This Requirement is near agreement, where the continued discussions are only in relation to the timeframe within which the remedial works must be carried out in Requirement 17 (3).

Disapplication of legislation

3.2.17 The EA notes that the Applicant has agreed to remove reference to the disapplication of **Section 24** (restriction on abstraction) of the Water Resources Act 1991 from the dDCO. This deletion is reflected in the **dDCO (3.1, REP2-006)** and remains the case in the dDCO submitted at Deadline 3 (**3.1, Rev 2**).

3.3 Eversheds Sutherland (International) LLP on behalf of Thames Water Utilities Limited

Introduction

5.3.1 Thames Water Utilities Limited (TWUL) has raised 3 main areas of note within its Written Representation (WR). These relate to:

- Crossness [Local] Nature Reserve (LNR), including:
 - compulsory acquisition;
 - environmental impacts;
 - visual impacts;
 - visitors/health and wellbeing;
 - areas of ecological value;
 - wildlife impacts such as barn owl, bats, birds and cumulative impacts;
 - shading;
 - contamination risks; and
 - national policy.
- Land at Bob Dunn Way; and
- Statutory apparatus.

5.3.2 This response addresses each of these issues in turn below.

5.3.3 The Applicant notes TWUL's statement at **paragraphs 5.1** and **5.2** of the WR regarding the conclusion of an agreement to satisfactorily address matters raised in the TWUL WR. The Applicant most recently met with TWUL on 14th May 2019 and considers that significant progress has been made, particularly in light of the decision to route the Electrical Connection along Norman Road rather than through the Thames Water managed Crossness LNR.

5.3.4 TWUL includes plans at **Appendix 1, Figures 1** and **2** titled 'Crossness Nature Reserve boundary' and 'Order Limits of the Project and location of the Data Centre build in relation to the Crossness Nature Reserve' respectively. It is noted that the eastern boundary of the designated Crossness LNR (as downloaded from <https://magic.defra.gov.uk> on 24th May 2019) does not encroach on the area for Work Numbers 7 and 8 of the **Works Plan (2.2, REP2-004)** as is indicated in the TWUL **Figure 1** and **2**.

- 5.3.5 In the Applicant's Deadline 2 submission (see **Electrical Connection Progress Report (8.02.07, REP2-058)**), it was confirmed that the Electrical Connection route no longer encroaches on the Thames Water managed Crossness LNR. This results from the removal of route option 1.
- 5.3.6 The Applicant has identified that the designated LNR area impinges on a short length of the verge west of Norman Road, where it approaches the REP site (north of the consented data centre site). This comprises Parcels 02/34 and 02/35 (in the freehold of Riverside Resource Recovery Limited) and part of Parcel 02/33 (adopted highway). None of these parcels comprise TWUL freehold or leasehold and TWUL rights only appear in respect of apparatus installed in Parcel 02/33, which is surfaced highway (refer to the **Book of Reference (4.3, REP2-010)**).
- 5.3.7 Parcels 02/34 and 02/35 comprise grassed verge and are located east of the ditch that separates Norman Road from the Thames Water managed body of the LNR. The DCO Application Boundary does not include the separating ditch and any development taking place in the verge or highway at Norman Road would comprise buried cabling or pipes with only temporary disturbance at the surface. The Applicant has previously confirmed in **Paragraph 4.7.3 of the Outline Code of Construction Practice (CoCP) (7.5, Rev 2)** submitted at Deadline 3, **Paragraph 11.9.15 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** and re-affirmed in the **Applicant Response to Relevant Representations (8.02.03, REP2-054)** submitted at Deadline 2, that works (other than laydown in relation to cable and pipe laying) would not be undertaken within 5 metres of the existing ditch (which lies outside the Application Boundary).
- 5.3.8 It should also be noted that a significant proportion of the Main Temporary Construction Compound would now be located on what is coloured the "Cory's consented Data Centres" site on **Figure 2 of Appendix 1** of TWUL's WR. Therefore, a significant central portion of the land labelled "Cory's proposed Main Temporary Construction Compound" is no longer part of the Proposed Development. Refer to the **Works Plans** submitted at Deadline 2 (**2.2, REP2-004**).

Crossness LNR

Proposed Compulsory Acquisition

- 5.3.9 The Applicant confirmed at Deadline 2 that the Electrical Connection route 1 through Crossness LNR has been removed and, as such, revised copies of the **Works Plans (2.2, REP2-004)**, **Land Plans (2.1, REP2-003)** and **Book of Reference (4.3, REP2-010)**, amongst other documents, were submitted. This confirms that all TWUL Parcels at Crossness LNR have now been removed, being references 02/39, 02/40, 02/41, 02/42 and 03/01.
- 5.3.10 The Applicant notes that the above changes (which have been confirmed at Deadline 2) satisfies **Paragraph 2.3** of TWUL's WR that "...a number of TWUL's concerns surrounding the compulsory acquisition of rights over, and any direct consequential impacts on, the Crossness Nature Reserve would be addressed...".

Environmental Impacts

- 5.3.11 The Applicant received a copy of the main body of the Section 106 ('s106') agreement dated 21st July 1994 (in relation to the TWUL sludge treatment facility) on 10th June 2019. The Applicant also received the "Thames Water site management plan 2016–2020 Crossness Nature Reserve & Crossness Southern Marsh". The obligations on TWUL are set out in Schedule 2 to the s106 and were not provided, however TWUL has committed to provide this information to the Applicant in due course. The Applicant reiterates that the biodiversity value of Crossness LNR will not be adversely affected by REP in and therefore effects on this designated area are Not Significant (**Paragraph 11.9.2 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)**). Accordingly, it follows that there can be no conflict with the s106 as (a) there are no direct effects and (b) the indirect effects are not significant. In any event, as the Applicant is not "building" on the land bound by the s106, there can be no breach of the s106. It also follows, for these same reasons, that TWUL cannot be found to be in breach of its statutory duties.
- 5.3.12 It is noted, in conclusion in **Paragraph 2.8** of TWUL's WR, that: *"TWUL is in discussions with the Applicant about these impacts and the securing of appropriate measures in the dDCO to ensure its concerns are addressed."* The proposed measures are considered further below in this response.
- 5.3.13 Regarding any TWUL "apparatus", the Applicant has included protective provisions for the protection of water undertakers in **Part 2 of Schedule 10** of the **dDCO (3.1, REP2-006** and in **Rev 2** submitted at Deadline 3). Bespoke protective provisions are currently being drafted for the protection of TWUL. The protective provisions will provide TWUL with the necessary protection regarding its apparatus.

Visual impacts

- 5.3.14 The work of TWUL in engaging the local community is acknowledged. The Applicant, through the existing Riverside Resource Recovery Facility (RRRF), has also engaged positively with the local community over the last 10 years or so. This is reflected in, for example, school visits, open days, and apprenticeship and education programmes to upskill the local workforce.
- 5.3.15 **Table 9.8 in Chapter 9 Townscape and Visual Impact Assessment (TVIA)** of the **ES (6.1, REP2-021)** summarises the potential townscape and visual effects on Crossness LNR of the Proposed Development during construction and operation.
- 5.3.16 Visual receptors at viewpoints 2 and 3 were selected for the visual effects assessment as they are representative of people's views when using Public Rights of Way (PRoW) within the Crossness LNR. Although Moderate, and therefore Significant, adverse visual effects upon people's views from these locations are identified, the REP site is within an existing industrial area, with a character of industrial development based around the river. Embedded mitigation, described below, would seek to take account of adjacent land uses and existing townscape character. The buildings and stack(s) would be seen as a new feature in the context of other industrial buildings, other existing vertical elements such as wind turbines and other stacks.

- 5.3.17 A **Design Principles** document accompanied the DCO Application (**7.4, APP-105**), secured by Requirement 2(2) of **Schedule 2** of the **draft Development Consent Order (dDCO) (3.1, Rev 2)** submitted at Deadline 3, ensures that the beneficial outcome from the stepped design is further enhanced by a commitment to minimise massing and locate the Main REP Building as far from the western boundary of Crossness LNR as is practicable. This would mean that the maximum extent of open view is sought to be retained to the west of the existing Wernick site (plot 02/05) and its associated stacked cabins. This represents the embedded mitigation in respect of minimising visual intrusion and lighting effects on the Crossness LNR.
- 5.3.18 Townscape receptors assessed in the TVIA include 'Designated Public Open Space and Landscapes and scrubland habitats', which includes the Crossness LNR. The TVIA assessed that during operation there would be loss of connectivity between the designated marshland and the River Thames. The townscape effect upon Designated Public Open Space and Landscapes and Scrubland habitats, would be adverse and of a moderate level of significance that would be Significant. **Paragraph 9.13.7** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)** reports that both the beneficial and adverse effects from the Proposed Development would need to be weighed against its wider benefits such as delivering the urgent need for new renewable/low carbon electricity supply (which must be given substantial weight) as established in NPS EN-1. It should also be noted that the London Borough of Bexley in its **Local Impact Report (REP-082)** at **Paragraph 11.12** states that there would be a "positive change" experienced by people walking, amongst others, along the Thames Path National Trail and the Public Right of Way between Crossness Nature Reserve and Eastern Road.
- 5.3.19 In its **Paragraph 2.8.4**, TWUL repeats the Applicant's commentary in respect of large scale development, but TWUL notes that it feels that impacts could have been reduced by a curved roof design. However, the curved roof design would introduce a greater building height, greater building mass and in turn greater shadowing effects.
- 5.3.20 A **Design and Access Statement (DAS) (7.3, APP-104)** accompanies the DCO Application and describes the design evolution of the REP site and the Main REP Building. As a result of the process set out in the DAS, including non-statutory and statutory consultation, a stepped roof design was selected which will seek to ensure that the visual impact of the Main REP Building on Crossness LNR is minimised from the outset of the detailed design process. The stepped design allows the maximum height of the Main REP Building to be reduced to the lowest level reasonably practicable and minimises the building massing required to accommodate the internal equipment and facilities.
- 5.3.21 The Applicant considers that any strongly subjective assessment of what is aesthetically pleasing is significantly outweighed by the minimisation of environmental effects through keeping building height and massing to a minimum. The London Borough of Bexley in its **Local Impact Report (REP-082)** at paragraph 11.9 considers that a high quality design can be achieved in line with the development plan. This high quality design can be achieved through Requirement 2 of the draft Development Consent Order.

- 5.3.22 With reference to **Paragraph 2.8.5** of TWULs WR, the existing approved data centre was included in the cumulative assessment (**Section 9.10** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)**).
- 5.3.23 **Paragraph 9.10.7** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)** summarises potential cumulative townscape effects upon the existing scale, grain and massing of the urban area. Sites 008 (Data Centre), 0014 (Savills bus depot, ind. & offices); and 0012 (TRE Belvedere Industrial) are 'Other Developments' which would give rise to an intensification of existing land uses and increase in the scale and massing of buildings in the area.
- 5.3.24 These cumulative developments and their construction footprints are smaller than REP and therefore, on balance, it is considered that there would be an Adverse effect that is of a minor level of significance and therefore would be Not Significant.
- 5.3.25 **Paragraph 9.10.13** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)** summarises the potential cumulative visual effects on people's views from PRow at Crossness LNR.
- 5.3.26 Committed developments, including the Savills bus depot, ind. & offices, Data Centre and TRE Belvedere Industrial, includes large scale industrial buildings / offices of between 20 and 30 m in height. These committed developments will intensify the existing land uses and increase the size and scale of built form in this area. REP will be an additional development, close to the Crossness LNR, larger in scale, mass, and height, giving more enclosure and restriction of views but with a more distinctive roofline of the tall stack(s) bringing interest and a focal point to the skyline (as the London Borough of Bexley also agrees with at **Paragraph 11.12** of its **Local Impact Report (REP2-082)**). In the context of these committed developments, the addition of the Proposed Development will give rise to an adverse cumulative visual effect which is of a Moderate level of significance, and therefore is Significant. **Paragraph 9.13.7** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)** reports that this moderate level of significance would need to be balanced against the beneficial effects of the Proposed Development, including the substantial weight to be given to the urgent need for new generating assets, particularly for low carbon/renewable assets that will help the UK transition to a low carbon economy, the need for waste capacity and taking waste out of landfill and moving it higher up the waste hierarchy, all of which is in compliance with the **NPSs EN-1** and **EN-3**.
- 5.3.27 In respect of TWUL's Figure 3 (referenced in **Paragraph 2.8.6**) there is no indication of the location from which the photo was taken (although clearly from an elevated position), whether it is a verified view, whether the data centre and REP development are shown accurately and whether the figure has been produced in line with best practice guidance relating to, for example, camera focal length and viewpoint width.
- 5.3.28 As part of the assessment process, all verified view locations for the TVIA were discussed and agreed with stakeholders, including the London Borough of Bexley (LBB).

- 5.3.29 In respect of TWUL's assertion that there would be a moderate/major adverse effect to the openness of Crossness LNR, there is no indication as to whether TWUL considers this to be a landscape or visual effect, to which receptor/viewpoint the effect occurs or whether this is a cumulative effect. In light of this unsubstantiated assessment conclusion, the Applicant does not accept that any aspect of the TVIA should be reconsidered.
- 5.3.30 As noted above, the Applicant accepts that there would be adverse visual and landscape effects on Crossness LNR from certain viewpoints. However, it is noted that the REP site is within an existing industrial area, with a character of industrial development based around the river and embedded mitigation would seek to take account of adjacent land uses and existing townscape character. The buildings and stack(s) would be seen in the context of other industrial buildings, other existing vertical elements such as wind turbines and other stacks. Other than potential temporary disturbance during construction, to a very short extent of either FP2 or FP4 (each where they meet Norman Road and at locations outside of the Crossness LNR), no other temporary or permanent works would affect the access to or use of PRoW within Crossness LNR or its vicinity in terms of recreational opportunities and uses. Taking the above together, it is considered unlikely that there would be a loss of recreational opportunities. It is therefore considered unlikely that users will be deterred from using these recreational spaces (**Section 14.2** of the **Health Impact Assessment (6.1, APP-094)** and **Section 9.9** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)**).
- 5.3.31 It is likely that any visitors would be undertaking activities within Crossness LNR itself, rather than concentrating on the surrounding development. To this end, **Section 11.9** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** reports no likely significant residual effects on Crossness LNR. Therefore, it is considered that there is unlikely to be a loss of educational opportunities and that residents and visitors will still be able to benefit from the educational opportunities afforded by the species and habitats present there.
- 5.3.32 This assessment should also be considered against the backdrop of **National Policy Statement EN-1**. In the context of landscape effects, **Paragraph 5.9.8** of **EN-1** states that:
- "Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate"*
- 5.3.33 **EN-1** goes on to say at **Paragraph 5.9.17** that the Secretary of State "should consider whether the project has been designed carefully, taking account of

environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation."

- 5.3.34 In the context of visual effects, **Paragraph 5.9.18** states "All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The [Secretary of State] will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project." EN-1 goes on to state at paragraph 5.9.22 that "visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials....materials and designs of buildings should always be given careful consideration."
- 5.3.35 The Applicant has paid careful attention to the design of REP, and this has been acknowledged by the LBB in its **Local Impact Report (REP2-082)**. Of note are:
- **Paragraph 11.8:** *the Proposed Development would not be visible from protected views;*
 - **Paragraph 11.9:** *the skyline in some views will change, but the Proposed Development has the potential to create a new focal point within the Thames Policy Area as recommended in Saved Policy TS13;*
 - **Paragraph 11.9:** *the final design of the Proposed Development is not known at this stage, but it is anticipated that a high quality of design can be achieved in line with Saved Policy ENV39, Saved Policy TS13 and Core Strategy Policy CS03;*
 - **Paragraph 11.12:** *there will be some positive long term effects on character and visual amenity resulting from the creation of a new building and focal point of skyline interest in a location currently defined by car parking, waste ground, scrubland, roads and sheds. This positive change will be experienced by people walking on the Thames Path National Trail, people on the Public Right of Way between Crossness Nature Reserve and Eastern Road.*
- 5.3.36 Design has been of key importance to the Applicant, and this is why the stepped roof design has been selected, as described above, and why the **Design Principles (7.4, APP-105)** are secured via Requirement 2 of the **dDCO (3.1, Rev 2)** submitted at Deadline 3. The Design Principles will guide the final design, which must be approved by LBB under **Requirement 2**, in terms of building, siting, composition and mass (Principles section 3.2), materials and colour (Principles section 3.3), integrated biodiversity and landscaping (Principles section 3.4), and safety, signage and wayfinding (Principles section 3.5). As LBB confirm, through these Design Principles a good design is secured.
- 5.3.37 In addition, and in accordance with the **NPS EN-1**, the REP site is a good location for such development, given its allocation in planning policy as a Strategic Industrial Location and Preferred Industrial Location (**London Plan Policy 2.17**). Accordingly, there is an acceptance of the development of the REP site for industrial purposes. This is on top of the benefits of the site as follows:

- The Applicant's existing land ownership and ability for land assembly;
- The ability to optimise existing river transport infrastructure that is already established for waste and material delivery and export;
- The ability to optimise a location that is already in low carbon and waste management use (including the ability to share infrastructure with RRRF, thereby reducing the footprint of REP);
- The use of a brownfield site that is adequate to accommodate REP;
- Proximity to the necessary electrical connection;
- The good potential for district heating; and
- The location is such that there are a very limited number of potentially significant adverse effects on sensitive residential and environmental receptors, being only in respect of TVIA as reported in **Chapter 9 Townscape and Visual Impact** of the **ES (6.1, REP2-021)**.

5.3.38 In addition to good design and site location, the Proposed Development will meet the urgent need for new energy generation, help in the transition to a low carbon economy by being both low carbon and renewable, give rise to a carbon saving and move waste up the waste hierarchy.

5.3.39 In summary, the visual effects of the Proposed Development are outweighed by its benefits.

Visitors/health and well-being

Open space

5.3.40 Crossness LNR is already set in an urban industrial–river landscape setting and existing buildings are already sighted in views out of the reserve. Cumulative visual effects of the Proposed Development were considered in the cumulative effects assessment in the Townscape and Visual Impact Assessment (TVIA), and that identified cumulative visual effects on people's views from VP2 and VP3 which are public rights of way (PROW) in the Crossness LNR, arising from the Proposed Development and the Data Centre. Whilst the Applicant notes that there are measures proposed by TWUL that could be considered, these are not mitigating measures since they would not alter the effects of the development. On this basis the Applicant does not consider them appropriate to consider further.

Other impacts

5.3.41 **Chapter 11 Terrestrial Biodiversity, Paragraph 11.9.1** of the **ES (6.1, REP2-023)** confirms that the footprint of the REP site and Main Temporary Construction Compound does not affect Crossness LNR in terms of direct land take. This is also the case in respect of the additional area for the Main Temporary Construction

Compound covered by the **Environmental Statement Supplementary Report (6.6, REP2-044)**.

- 5.3.42 As identified above, the Electrical Connection route 1 through Crossness LNR has been removed, therefore potential direct impacts of this route option as reported in the ES are no longer relevant.
- 5.3.43 The Applicant notes that a short length of the western verge of Norman Road lies within the LNR designation but comprises verge adjacent to the highway and is outside the Thames Water managed LNR site and beyond the boundary ditch as explained above.
- 5.3.44 **Section 14.2** of the **Health Impact Assessment (6.3, APP-094)** concludes that, although there may be temporary construction effects which may reduce the recreational quality of areas surrounding the REP site, it is set within an existing strategic industrial area, with a character of industrial development based around the river, and embedded mitigation would take account of any sensitive adjacent land uses and existing townscape character. As a result, it is considered that users will be attuned to the existing industrial setting and be unlikely to be deterred from using these recreational spaces.
- 5.3.45 The Crossness LNR would not be closed, nor adversely affected during construction and therefore would still be open to visitors for educational and recreational use, as is currently the case. **Section 11.9 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, Rev 1, REP2-023)** confirms no likely significant residual effects on terrestrial biodiversity aspects of Crossness LNR. Therefore, it is considered that residents and visitors will still be able to benefit from the educational opportunities afforded by the species and habitats present there.
- 5.3.46 **Table 1** of the **Outline Biodiversity and Landscape Mitigation Strategy (OMBLMS) (7.6, Rev 1)** submitted at Deadline 3 sets out measures which will be used during construction to avoid or mitigate potential indirect effects such as those from noise, visual disturbance, dust and pollution. The **OBLMS** is secured via **Requirement 5 at Schedule 2** to the **draft Development Consent Order (3.1, Rev 2)** submitted at Deadline 3, which requires that the final BLMS, submitted to and approved by the local authority, be in substantial accordance with the **OBLMS**.
- 5.3.47 Potential effects arising from traffic movements, such as noise disturbance and dust may take place during the construction works for the Proposed Development. However, with the appropriate mitigation in place, considering issues such as timing of works, the resilience of particular species, and good practice construction methods, these are not anticipated to occur and are assessed as being Not Significant, see **Chapter 11 Terrestrial Biodiversity, Paragraph 11.9.2** of the **ES (6.1, REP2-023)**. Furthermore, in respect of potential noise impacts on breeding birds during construction, which would include noise related to transport, **Paragraphs 11.9.10 and 11.9.11 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** confirm that construction would generally not take place at night and no night-time increases are anticipated.

- 5.3.48 **Paragraph 11.9.11 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** concludes that construction disturbance will not affect the long-term distribution and abundance of the assemblage of breeding birds within the study area or its nature conservation importance. The effects are therefore classified as Not Significant. This is on the basis that, whilst elevated noise levels may generally cause some displacement of breeding birds, the birds nesting within habitats around the margins of the REP site are resilient; and that potential effects to breeding birds from disturbance during construction will be of low magnitude, temporary and localised to the REP site and its immediate surroundings.
- 5.3.49 Following recent changes to the Application Boundary, the Proposed Development will not give rise to any direct effects to the Thames Water managed Crossness Nature Reserve. There is potential for temporary construction effects from disturbance to habitats in Erith Marshes Site of Importance for Nature Conservation (SINC). Measures to avoid or mitigate potential construction effects within these areas are set out in **Table 1** of the **OBLMS (7.6, Rev 1)** submitted for Deadline 3. The **OBLMS** also sets out how habitats within the Crossness LNR and the key species and species groups they support, such as bats, water vole and breeding birds, will be protected during the construction phase.
- 5.3.50 **Paragraph 11.9.2 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** states that, following mitigation, the conservation objectives (and therefore viability) of Crossness LNR would not be undermined and potential effects from the Proposed Development would therefore be Not Significant.
- 5.3.51 **Paragraph 3.5.10 of Chapter 3 Project and Site Description** of the **ES (6.1, REP2-013)** refers to both Continuous Flight Auger (CFA) and percussive piling methods and the latter has been assessed as the reasonable worst case for noise. Early investigation by the likely contractor has identified a high likelihood of CFA boring whose noise levels would be below the reasonable worst case. Notwithstanding this, the EIA considers percussive piling and **Paragraph 8.9.11 of Chapter 8 Noise and Vibration** of the **ES (6.1, APP-045)** finds that construction related noise effects would be Not Significant. Therefore, whilst there would be a temporary adverse effect, this is considered an acceptable effect.
- 5.3.52 With regard to **Paragraph 2.8.14** of TWUL's WR, it is acknowledged that **Paragraph 5.6.10** of the Applicant's **Planning Statement (7.1, APP-102)** discusses the potential for construction-related air quality effects. However, this was simply describing potential effects in order to set the Proposed Development in the context of the planning regime. Adverse effects identified within assessments relevant to paragraph 2.18.14 of TWUL's WR (relating to or deriving from emissions to air) are reported as Not Significant in **Chapter 16 Summary of Findings and In-Combination Effects** of the **ES (6.1, APP-053)**.
- 5.3.53 The Applicant acknowledges TWUL's statement regarding **Paragraph 11.9.25 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** that there is potential for a change in species assemblages as a result of the operation of the Anaerobic Digestion plant. However, **Paragraph 11.9.25** goes on to state:

*“older marshes, such as this, are less sensitive to nitrogen deposition than new or evolving habitats (apis.ac.uk, 2018) and the areas of the LNR/SINC affected are limited to marginal habitats in the immediate vicinity of the REP site (see **Figures 7.9 and 7.10**). Habitats likely to be affected are not of high botanical diversity consisting of tall ruderal, semi-improved grassland, and scrub. Therefore, predicted effects through nitrogen deposition to these designated areas of **County/Metropolitan** conservation importance are **Not Significant**”.*

5.3.54 The Applicant signed a Statement of Common Ground (SOCG) with Natural England on 16th May 2019 and this was submitted at Deadline 2 (**8.01.05, REP2-051**). Natural England confirm their agreement to all matters related to the Applicant's assessment of the effects arising to Air Quality (**Section 2.2**) and Terrestrial Biodiversity (**Section 2.3**), including specifically in respect of nitrogen deposition at **Paragraph 2.3.18**, where they state, *“It is agreed that the predicted effects through nitrogen deposition are Not Significant”.*

Proximity to areas of ecological value

- 5.3.55 **Paragraph 11.9.10 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** identifies that noise levels were monitored with respect to existing and predicted levels during construction of REP at a representative location within Crossness LNR where breeding birds could be expected to be found. This location, identified as Location 3 on **Figure 11.10 of the ES (6.2, APP-061)**, is at the southwest corner of the 'West Paddock' where lapwing are known to breed. The assessment shows that the temporary construction noise levels would increase from 52 decibels (dB) to 62 dB during construction. To provide further context to the absolute levels, normal conversational noise levels are around 60 dB¹⁶. Therefore, the predicted construction noise levels at Location 3 will be marginally above normal conversation levels.
- 5.3.56 The modelled increase in construction noise levels at Location 3 and considered in the ES presents a reasonable worst case scenario, assumed to continue throughout the temporary construction phase and that the activity is undertaken at the site boundary.
- 5.3.57 It is acknowledged that noise levels at the site boundary (at the northernmost edge of the West Paddock and on the eastern boundary to the REP site) would be higher than representative Location 3. However, the maximum localised noise level at the boundary would likely occur during breaking out of existing hardstanding, which would be a relatively short term activity in the overall programme. **Table 1 of the Outline Biodiversity and Landscape Mitigation Strategy (OMBLS) (7.6, Rev 1)** submitted at Deadline 3 sets out measures which will be used during construction to avoid or minimise potential direct or indirect effects, including timing of clearance works to avoid the core bird nesting season if they might be subject to effects. However, Location 3 is a good fit for a representative location relative to the REP site, where birds were found to be breeding in the 2018 surveys.

¹⁶ Institute of Acoustics and Association of Noise Consultants (2015). Acoustic of schools: a design guide

- 5.3.58 Given the resilience of birds nesting within habitats towards the margins of the REP site, and that potential effects to breeding birds from disturbance during construction will be of low magnitude, temporary and localised to the REP site and its immediate surroundings, **Paragraph 11.9.11 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** concludes that potential construction disturbance will not affect the long-term distribution and abundance of the assemblage of breeding birds within the study area or its nature conservation importance. The effects are therefore classified as Not Significant. **Paragraph 11.9.12 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** acknowledged that there may some very irregular construction activities, as described in **Chapter 8 Noise and Vibration (6.1, APP-045)** which may elevate construction noise levels above the modelled levels presented. Due to the irregularity of these events, no effects above those described above are anticipated.
- 5.3.59 **Paragraph 11.9.43 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** identifies that noise levels were monitored with respect to existing and predicted levels during operation of REP at Location 3. The assessment shows that operational noise levels would increase from 52 dB to 55 dB during daytime, and from 47 dB to 53 dB during night-time. As above, it is noted that normal conversation noise levels are around 60 dB. Therefore, the predicted operational noise levels at Location 3 will be below normal conversation levels. The ES therefore concludes these modest increases on the breeding bird population of Local importance will be Not Significant.
- 5.3.60 **Chapter 11 Terrestrial Biodiversity, Paragraph 11.9.27** of the **ES (6.1, REP2-023)** includes an assessment of the potential operational effects of exterior lighting required for REP on habitat (see **Section 11.9, Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**). The **Outline Lighting Strategy (6.3, APP-096)** sets out, through Design Principles 5.01, 5.02 and 5.04, the approach to lighting design prepared in consultation with an ecologist, in accordance with industry guidance in relation to mitigating lighting effects to wildlife, to ensure effects to designated areas from light spill are avoided or minimised. The operational lighting strategy is secured via **Requirement 16 at Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3, which requires that no part of Work Nos 1, 2, 3, 4, 5 and 6 may commence until a written scheme for the management of operational external artificial light emissions for that part has been submitted to and approved by the relevant planning authority.
- 5.3.61 The Applicant also addressed these matters in the **Applicant Response to Relevant Representations (8.02.03, REP2-054)** submitted at Deadline 2 in **Paragraphs 3.10.38-3.10.39**. In addition to matters set out in that response, the Applicant notes that the **Outline Lighting Strategy (6.3, APP-096)** refers to the Bat Conservation Trust and Institution of Lighting Professionals Guidance on 'Bats and Artificial Lighting in the UK' (2018) to define acceptable standards for the management and mitigation of lighting for bats using the Crossness LNR and River Thames. Following this guide will result in operational external artificial lighting that lacks UV elements (such as LED source) with lower intensity, good colour rendition

(with suitable spectrum and peak wavelength), dimming capability and directed down.

Wildlife impacts

Barn Owls

- 5.3.62 Construction of the Proposed Development will not result in the loss of known barn owl breeding sites. One barn owl nest box is present within the REP site although there is no evidence of current use by barn owl. As set out in **Section 11.9 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-23)**, prior to construction, the barn owl box within the REP site will be inspected by a licenced barn owl surveyor and relocated to a suitable location nearby where it will not be subject to construction disturbance. If evidence of barn owl is recorded, the box will be relocated outside of breeding season. No known barn owl nest sites will be directly affected by the construction of REP.
- 5.3.63 As set out in the noise and lighting sections above, disturbance effects to receptors within the Crossness LNR are shown, through the EIA, to be Not Significant. In addition, barn owls are primarily a nocturnal species and so construction work, which will generally be undertaken during daylight hours, will not conflict with the time period when this species typically forages.
- 5.3.64 Construction of the Proposed Development will not result in the loss of optimal barn owl foraging habitat. Barn owls typically forage over permanent pasture, such as that present within Crossness LNR. The Open Mosaic Habitats within the REP site and the Main Temporary Construction Compound do not provide optimum habitat for foraging barn owl and are unlikely to be used to any great extent by foraging barn owls.
- 5.3.65 Taking the above points into consideration, the construction and operation of REP will not significantly affect barn owls within Crossness LNR.

Bats

- 5.3.66 It is considered that **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**, including **Section 11.9**, robustly addresses and assesses the potential effects to light-sensitive biodiversity receptors, principally bats.
- 5.3.67 Through **Requirements 11 and 16 of Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3, the **Outline Code of Construction Practice (7.5, Rev 2)** submitted at Deadline 3 and the **Outline Lighting Strategy (6.3, APP-096)** are secured which will ensure that lighting is compliant with relevant industry standards (i.e. bats and artificial lighting in the UK, Bat Conservation Trust & Institution of Lighting Professionals). The proposed measures will be in accordance with industry guidance and will be sufficient to address potential effects, therefore effects on sensitive biodiversity receptors such as the Crossness LNR and bats will be Not Significant.

Birds

Lighting impacts

- 5.3.68 The Applicant welcomes TWUL's comment that it has no concerns with the **Outline Lighting Strategy (6.3, APP-096)**. Under **Requirement 16 of Schedule 2** to the **draft Development Consent Order (3.1, Rev 2)** submitted at Deadline 3, the Applicant must submit the final lighting strategy to the relevant planning authority for approval, which must be substantially in accordance with the outline document.

Noise impacts

- 5.3.69 **Paragraph 11.9.10 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** identifies that noise levels were monitored with respect to existing and predicted levels during construction of REP at a representative location within Crossness LNR where breeding birds could be expected to be found. This location, identified as Location 3 on **Figure 11.10 of the ES (6.2, APP-061)**, is at the southwest corner of the 'West Paddock' where lapwing are known to breed. The assessment shows that the temporary construction noise levels would increase from 52 dB to 62 dB during construction. To provide further context to the absolute levels, normal conversational noise levels are around 60 dB¹⁷. Therefore, the predicted construction noise levels at Location 3 will be marginally above normal conversation levels.
- 5.3.70 The modelled increase in construction noise levels at Location 3 and considered in the ES presents a reasonable worst case scenario, assumed to continue throughout the temporary construction phase and that the activity is undertaken at the site boundary.
- 5.3.71 It is acknowledged that noise levels at the site boundary (at the northernmost edge of the West Paddock and on the eastern boundary to the REP site) would be higher than representative Location 3. However, the maximum localised noise level at the boundary would likely occur during breaking out of existing hardstanding, which would be a relatively short-term activity in the overall programme. Table 1 of the **Outline Biodiversity and Landscape Mitigation Strategy (OMBLS) (7.6, Rev 1)** submitted at Deadline 3 sets out measures which will be used during construction to avoid or minimise potential direct or indirect effects, including timing of clearance works to avoid the core bird nesting season if they might be subject to effects. However, Location 3 is a good fit for a representative location relative to the REP site, where birds were found to be breeding in the 2018 surveys.
- 5.3.72 Given the resilience of birds nesting within habitats towards the margins of the REP site, and that potential effects to breeding birds from disturbance during construction will be of low magnitude, temporary and localised to the REP site and its immediate surroundings, **Paragraph 11.9.11 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** concludes that potential construction

¹⁷ Institute of Acoustics and Association of Noise Consultants (2015). Acoustic of schools: a design guide

disturbance will not affect the long-term distribution and abundance of the assemblage of breeding birds within the study area or its nature conservation importance. The effects are therefore classified as Not Significant. **Paragraph 11.9.12 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** acknowledged that there may be some very irregular construction activities, as described in Chapter 8 Noise and Vibration of the ES (6.1, APP-045) which may elevate construction noise levels above the modelled levels presented. Due to the irregularity of these events, no effects above those described above are anticipated.

- 5.3.73 **Paragraphs 11.9.16 to 11.9.20 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** report the assessment of construction related noise effects to Wintering Birds. Intertidal areas closest to the REP site were found to be unexceptional in terms of numbers (and variety) of waterbirds supported. Noise levels were monitored and predicted noise levels during construction were assessed in relation to ecological receptors on the River Thames. No predicted noise increase are above 70 dB, therefore a high response effect is not considered likely. Given this, along with the temporary nature of effect to areas of limited value to overwintering birds, effects are reported as Not Significant. The Applicant notes the respondent's comment in their WR at **Paragraph 2.8.63** – agreeing that effects below 70 dB should not present a problem.
- 5.3.74 At **Section 5, the Design and Access Statement (7.3, APP-104)** sets out the primary reasoning for the chosen orientation of the proposals which take into account many factors, including noise. To ensure a robust, reasonable worst case assessment in respect of noise of the **ES**, the maximum noise outputs were used for each component and are as set out in **Table 8.10 of Chapter 8 Noise of the ES (6.1, APP-045)**. The Applicant's experience is that, after detailed design has been completed, the Air Cooled Condensers (ACC) are the source of the highest ongoing noise levels. The design process therefore took account of this expectation.
- 5.3.75 The selection process, reported in the DAS, also considered proximity to users of the Thames Path as well as numerous other factors such as maximising solar generation, massing, architectural balance, views from elevated positions in Belvedere, efficient delivery of waste to the tipping hall and co-location of the anaerobic digestion facility.
- 5.3.76 The Terrestrial Biodiversity assessment considers the operational noise effects of the chosen orientation on species at **Paragraph 11.9.43** which states “*..noise levels have been monitored and modelled with respect to existing and predicted noise levels during operation of REP within Crossness LNR to indicate how noise impacts could affect breeding birds (see Table 11.10 below). The results show minor increases of 3 dB during daytime operation and 6 dB during night-time operation. These modest increases on the breeding bird population of Local importance will be Not Significant*”.
- 5.3.77 The chosen orientation therefore achieves a suitable balance between different environmental, practical and operational considerations, which result in an acceptable noise effect on all relevant human and ecological receptors.

Cumulative impacts (effects)

- 5.3.78 TWUL raises concerns in relation to potential cumulative effects, principally breeding and foraging birds, from the development of REP along with the proposed Data Centre and other industrial units along Norman Road.
- 5.3.79 The construction of REP will result in the permanent loss of Open Mosaic Habitat within the REP site. Breeding bird surveys undertaken to inform the EIA identified one robin territory within the area of permanent habitat loss within the REP site. Other species recorded within the REP site, including birds of conservation concern, were recorded around the margins of the site within habitats that will be retained in the long term.
- 5.3.80 Surveys undertaken to inform the EIA identified species of conservation concern, such as skylark, breeding within the Main Temporary Construction Compound (comprising the Data Centre site included at Deadline 2 and the retained north and south areas of the submission stage Main Construction Compound Area). However ringed plover and little ringed plover were not recorded breeding within these areas during surveys conducted in 2018. Potential effects of the Proposed Development through habitat loss, on breeding and foraging birds using this area, will be temporary, lasting for the duration of the construction phase only.
- 5.3.81 **Table 1** of the **Outline Biodiversity and Landscape Mitigation Strategy (OBLMS) (7.6, Rev 1)** submitted at Deadline 3 sets out measures which will be used during construction to avoid or minimise potential direct or indirect effects such as timing of clearance works to avoid the core bird nesting season, where possible. If this cannot be achieved, works within the bird nesting season requiring clearance would require an inspection by a suitably qualified ecologist no more than 24hrs prior to any works undertaken. Measures to avoid indirect effect from noise, visual disturbance, dust and pollution are also provided. The measures described in the **OBLMS** are secured via **Requirement 5** at **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3. Requirement 5 requires that a final BLMS is submitted to and approved by the local planning authority, and must be substantially in accordance with the **OBLMS**. In respect of pre-commencement works, **Requirement 4** requires that a pre-commencement Biodiversity and Landscape Mitigation Strategy is submitted to and approved by the local authority, including details of mitigation measures required to protect protected habitats and species during the pre-commencement works.
- 5.3.82 These strategies will provide mitigation for the Data Centre site. The Applicant has committed in the **OBLMS** to treat the Data Centre site as if the loss of habitat is a permanent loss, even though under the DCO the use is only temporary. This therefore means that the Applicant is "over" compensating for the Data Centre site.
- 5.3.83 The area surrounding the Proposed Development currently contains numerous perching structures for avian predators such as existing buildings, pylons, and gantries. The addition of the REP building will not provide a perching resource for predators which is not already present in close proximity to Crossness LNR.

- 5.3.84 The principles of the mitigation hierarchy have been adopted and used when developing measures to address potential effects from REP on biodiversity receptors, including through the loss of open mosaic habitat. The principles of the mitigation hierarchy are that, in order of preference, effects on biodiversity should be subject to:
- Avoidance;
 - Mitigation; and
 - Compensation.
- 5.3.85 In addition, to ensure the Proposed Development meets requirements set out in current planning policy in relation to delivery of biodiversity net gain, the Applicant has committed to delivering a minimum of 10% biodiversity net gain.
- 5.3.86 It is fully acknowledged that due to the limited area of the REP site, habitat compensation and enhancement will need to be undertaken off-site. The Applicant has commissioned the Environment Bank (EB) to assist with delivery of off-site habitat compensation and enhancement, which will be secured through **Requirement 5 of Schedule 2 of the dDCO (3.1, Rev 2)** submitted at Deadline 3. The Applicant and the EB are in the process of assessing options to provide the offset and the Applicant will share ongoing outcomes of this process with the ExA and interested parties during the Examination. The details of the extent, type and location of the offset to be provided will be confirmed during detailed design, and secured through **Requirement 5 of the dDCO (3.1, Rev 2)** submitted at Deadline 3.
- 5.3.87 The EB process seeks local sites first and the Applicant would welcome suggestions for sites and locations from TWUL and LBB to inform the site search process. Further information on the biodiversity net gain process is set out in the **Biodiversity Accounting Report (8.02.09, REP2-060)** and the **Biodiversity Offset Delivery Framework (8.02.25)**.
- 5.3.88 The Applicant's submitted **Design Principles** document (**7.4, APP-105**) sets out how the REP development will progress through the detailed design stage. Whilst the general principle for green roofs and walls in new developments is acknowledged by the Applicant, this has to be set against the design, maintenance and safety requirements of the project. This is acknowledged in **Paragraph 2.6.26 of the Design Principles (7.4, APP-105)** which states that "*...the existing flood embankment will be the focus of onsite biodiversity gain, with any remaining opportunities within the final on site design being explored where possible. Any further necessary biodiversity net gain will be secured through offsetting through a mechanism secured through the final Biodiversity and Landscape Mitigation Strategy*".
- 5.3.89 **Design Principle DP 3.01** ensures that planting design is given due consideration within the constraints set out in the accompanying commentary.

Shading

- 5.3.90 In response to concerns from Interested Parties in relation to potential shading effects to Crossness LNR, the Applicant has undertaken further assessment of potential shading effects to Crossness LNR, as presented in the **Report on Shading effects to Crossness Local Nature Reserve (8.02.10, REP2-061)** submitted at Deadline 2, and resubmitted at Deadline 3 with additional information including the shadow modelling images. This report includes further 3-dimensional modelling of the shadow cast across Crossness LNR from the REP building, along with a commentary on potential ecological effects to the LNR.
- 5.3.91 The assessment has been undertaken on the basis of the illustrative stepped building form as outlined in **Section 6.4** of the **Design and Access Statement (7.3, APP-104)**. The assessment provides a reasonable representation of the likely shadow cast from the Main REP Building based on the illustrative stepped building form. The shading effects of existing buildings are also taken into account in the assessment.
- 5.3.92 The **Report on Shading effects to Crossness Local Nature Reserve (8.02.10, Rev 1)** submitted at Deadline 3 demonstrates that shadows from the Main REP Building are at their largest extent across Crossness LNR just after dawn as the sun rises in the east, casting shadows to the west. As the sun moves higher in the sky during the morning, the shadows quickly move across Crossness LNR, and the extent of shading rapidly reduces. The modelling demonstrates that shadows are no longer cast on Crossness LNR by around early to mid-morning (with the exact times varying throughout the year). Shadow modelling images also demonstrate that in the evenings, as the sun sets from April through to August, the Main REP Building casts a shadow to the southeast over the north eastern field within the Crossness LNR, adjacent to Norman Road. The extent of these shadows in the evening are very small, only covering the ditch and field margin.
- 5.3.93 As stated in the **Report on Shading effects to Crossness Local Nature Reserve (8.02.10, Rev 1)**, the intensity of the sun varies throughout the day, with the least solar radiation received at dawn and dusk, and the most solar radiation at midday. The shading images demonstrate that shading to Crossness LNR from REP will be at its greatest extent around dawn, when the intensity of the sun is at its lowest, and therefore has the lowest influence on plant growth. Through the morning the extent of shading reduces as the intensity of the sun increases, and by mid-morning shadows have left the Crossness LNR. There is no shading to the Crossness LNR during the period of the day when the sun's intensity is highest, the time of day when plants will be growing most actively.
- 5.3.94 The assessment demonstrates that due to the location, extent and duration of the shading, significant changes to habitats within the Crossness LNR, and species which they support, are unlikely.
- 5.3.95 The assessment supports the conclusion of the **ES** in that *"..whilst there is potential for some minor changes in the botanical assemblage in these areas as a result of shading, this is considered to be unlikely. Therefore, effects from shading to Crossness LNR of County/Metropolitan importance, and Erith Marshes SINC of Local conservation importance, will be Not Significant"*.

Contamination Risks

- 5.3.96 **Chapter 13 Ground Conditions** of the **ES (6.1, REP2-027)** reports that the presence of asbestos within the Made Ground could pose a potential risk to current users, construction workers and off-site human health through the respiration of airborne fibres during excavations or ground clearance. Asbestos is not considered a groundwater contaminant due to its insolubility and immobility in groundwater therefore potential for migration of fibres through the soil matrix through the action of groundwater flow alone would be highly limited.
- 5.3.97 The footnote in **Tables 13.6, 13.7 and 13.8** of **Chapter 13 Ground Conditions** of the **ES (6.1, REP2-027)** identifies that offsite human health is not considered to be a receptor in the context of ground gas and the Proposed Development because the source is also present in the wider area and is not limited to the Proposed Development. The Crossness LNR itself is not a receptor for ground gas from the Proposed Development as it is likely the source is also present beneath the Crossness LNR and as an open area is not considered at significant risk from ground gas. No significant adverse effects are therefore anticipated to the Crossness LNR from identified natural source of ground gas associated with the Proposed Development.
- 5.3.98 In relation to asbestos and off-site human health and the Crossness LNR, the highest potential for a hazard associated with asbestos occurs at the Data Centre site and Main Temporary Construction Compound. The Applicant notes and agrees with the respondent's reference at 13.7.26 of **Chapter 13 Ground Conditions**. However, **Paragraph 13.8.3** of **Chapter 13 Ground Conditions** of the **ES (6.1, REP2-027)** refers to mitigation to reduce exposure to construction dust (such as PPE and best practice measures), which will ensure adverse effects are Not Significant, as confirmed in **Table 13.5**. Such mitigation items are included in **Section 4.9** of the **Outline CoCP**, which is secured through **Requirement 10** of **Schedule 2** of the **dDCO (3.1, Rev 2)**, submitted at Deadline 3.
- 5.3.99 The Applicant notes discussions are ongoing with the respondent to agree mitigation methods, however it reiterates that measures outlined in the **Outline CoCP (7.5, REP2-046)** are considered suitable to prevent residual significant adverse effects.

National Policy Statement EN-1

- 5.3.100 Crossness LNR is also designated as Metropolitan Open Land (MOL). No works for REP will occur within the MOL, except in the southeast corner at the junction of Norman Road and Picardy Manorway, in the event that an above-ground Electrical Connection crossing ("cable trough") is required to the west of the existing highway bridge. Underground cable installation works would also occur within the verge adjacent to the highway at the north end of Norman Road. Any such works would be minor in scale and scope.
- 5.3.101 TWUL refers to **Paragraph 5.10.17** of **NPS EN-1**. That paragraph applies to Green Belt, and MOL is not green belt. In any event, **Paragraph 5.10.17** applies to

development "when located in the Green Belt", which the NPS then classes as "inappropriate development." The rest of the paragraph then discusses the tests that the Secretary of State must apply to that "inappropriate development" (i.e. an energy project located in the Green Belt). Accordingly, Paragraph 5.10.17 of **NPS EN-1** does not apply to the Proposed Development.

5.3.102 It should also be noted that the REP site is an ideal location, given its allocation in planning policy as a Strategic Industrial Location and Preferred Industrial Location (**London Plan Policy 2.17**). Accordingly, there is an acceptance of the development of the REP site for industrial purposes.

5.3.103 In respect of the various effects on the MOL that might arise, these have been considered in parallel with effects on Crossness LNR, including in respect of 'openness'. The Crossness MOL is already set in an industrial-river landscape and existing buildings are already sited in views out of the reserve. However, the Applicant notes that there are measures proposed by TWUL that could be considered (although these are not mitigating measures since they would not alter the effects of the Proposed Development). On this basis the Applicant does not consider them appropriate to consider further.

Land at Bob Dunn Way and Statutory Apparatus

5.3.104 It is noted that through the selection of a single Electrical Connection route at Deadline 2, the Applicant has reduced the extent of many of the parcels referenced by TWUL, including the area of temporary construction compound use over the inert landfill in parcel 13/12.

5.3.105 The Applicant notes that TWUL *'is content that the works to be carried out do not prejudice its undertaking, provided that protective provisions securing the protection of its assets are agreed and included in the dDCO'*. The Applicant has included Protective Provisions in **Schedule 10, Part 2** of the **dDCO (3.1)** in **Rev 0, Rev 1** and **Rev 2**. The Applicant sent the draft Protective Provisions to TWUL in October 2018, and still awaits a response from TWUL. The Applicant has agreed in principle for Protective Provisions to be included for the benefit of TWUL, and looks forward to TWUL providing comments on the draft already issued to them or p

Conclusion

5.3.106 At Deadline 2 the Applicant removed all TWUL land parcels in the vicinity of REP from the Proposed Development, meaning that none of the Thames Water managed Crossness LNR falls within the Application boundary. The remaining effects are Not Significant (with the exception of a limited number of residual significant adverse effects in relation to Townscape and Visual Impact). Effects in respect of Air Quality and Terrestrial Biodiversity have been agreed by Natural England as Not Significant in a SoCG between them and the Applicant (**REP2-051**).

3.4 Eversheds Sutherland on behalf of National Grid Electricity Transmission Plc

Summary of Written Representation:

- 3.4.1 The Written Representation (WR) lodged by National Grid Electricity Transmission Plc (NGET) seeks to ensure that any development does not impact its statutory obligations.
- 3.4.2 NGET objects to the inclusion of powers in the draft Development Consent Order (dDCO) that could be used to extinguish NGET's rights to maintain its apparatus, remove that apparatus or restrict access to the apparatus.
- 3.4.3 NGET requests that its rights to retain its apparatus in situ and rights of access to inspect, maintain, renew and repair such apparatus located within or in close proximity to the Order limits is maintained at all times and access to inspect and maintain such apparatus is not restricted.
- 3.4.4 NGET wishes to maintain its objection unless and until satisfactory protection for its land and assets is included in the dDCO.
- 3.4.5 The Applicant has provided a response to the matters raised in NGET's WR below.

Response to Written Representation:

- 3.4.6 The Applicant has provided protective provisions for the protection of NGET in **Part 6 of Schedule 10** to the **dDCO (3.1, Rev 2)**, submitted at Deadline 3 which address the concerns raised by NGET with respect to rights regarding its apparatus.
- 3.4.7 As set out in the Applicant's Response to NGET's Relevant Representation submitted at Deadline 2 (**8.02.03, REP2-054**), the protective provisions will ensure that NGET's apparatus will be protected and access maintained at all times to inspect and maintain such apparatus. The protective provisions also ensure that, if it is necessary to remove apparatus, no rights will be extinguished or interfered with without NGET's agreement and no apparatus will be removed until alternative apparatus has been constructed and is in operation. Furthermore, **Article 34** of the **dDCO (3.1, Rev 2)**, submitted at Deadline 3, provides that statutory undertakers, which includes NGET, will have the same powers and rights in respect of any apparatus in a street that is subject to the exercise of powers contained in **Article 11** (street works), **Article 12** (power to alter layout etc, of streets) or **Article 13** (prohibition or restriction of use of streets and public rights of way), as if the Development Consent Order had not been made.
- 3.4.8 Discussions with NGET in relation to the draft protective provisions are taking place. The Applicant is confident that agreement with NGET will be reached on the terms of the protective provisions and any other commercial terms prior to the end of Examination. The Applicant will update the Examining Authority at the earliest opportunity once terms are agreed.
- 3.4.9 As stated in **Paragraph 4.5.7** of the **Applicant's Responses to Relevant Representations (8.02.03, REP2-054)** the design of the Electrical Connection is

being progressed by UKPN who have existing apparatus within Littlebrook substation. As a result, UKPN has an established relationship with NGET at the site and the efficient and coordinated installation of the REP connection is therefore assured.

3.5 Shakespeare on behalf of Western Riverside Waste Authority

Introduction

3.5.1 Western Riverside Waste Authority (the WRWA) submitted a written representation (WR) for Deadline 2 (**REP2-093**). The WR included nine annexures. The issues raised by the WR can be summarised as following:

- The WRWA has claimed that it is has status as a statutory undertaker pursuant to **Section 127** of the **Planning Act 2008 (PA 2008)** and **Section 8** of the **Acquisition of Land Act 1981 (ALA 1981)**. It claims that its undertaking is the working of docks and the transportation of waste by water. As a consequence, it maintains that it has the benefit of the protection afforded to it by **Section 127** of the **PA 2008**. (Statutory Undertaker Issue)
- The Applicant has failed to make meaningful attempts, either before the DCO application was made or since its submission, to acquire the necessary land and interests by agreement or to renegotiate the Waste Management Services Agreement (WMSA), which is contrary to the guidance 'Planning Act 2008 Guidance related to procedures for the compulsory acquisition of land (September 2013)'. (Negotiation Issue)
- There is a clear public interest in ensuring that WRWA's contractual position with the Cory Group (as defined in **Section 1.2** of the **Funding Statement (4.2, APP-017)**) is not undermined by the granting of compulsory acquisition powers over land in which WRWA has land interests. (Contractual Issue)
- Under the terms of the WMSA and Residual Value Agreement the WRWA is able to call upon the Cory Group to use land which it is proposed, in part, to locate REP to construct waste facilities to respond to any change in law scenario. The loss of that land by compulsory acquisition is detrimental as it is of a type which is scarcely available and it is unclear how the loss of that land would be compensatable. (Change in Law Issue)
- There is potential for conflict during construction and operation of REP on land adjacent to the existing EfW facility. (Conflict between RRRF and REP)
- The Applicant's proposals for REP would have a serious detriment to WRWA carrying out its undertaking. (Serious Detriment)
- There is no compelling case in the public interest if the Applicant is granted powers of compulsory acquisition over the WRWA's land interests. (Public Interest Case)
- As per the Applicant's submissions at the compulsory acquisition hearing held on 6 and 7 June 2019 (CAH), the information in the annexures to the WRWA WR was subject to substantial augmentation at the CAH. Therefore, the Applicant has not responded to the annexures at Deadline 3. Instead, it will

review WRWA's written summary of oral representations made at the CAH and respond at Deadline 4. This approach was approved by the ExA at the CAH.

Background and history

- 3.5.2 Before addressing the substantive issues at hand, the Applicant considers it necessary to address some aspects of the background and history sections of the WRWA's WR which the Applicant considers are potentially misleading (focusing only on those paragraphs and/or misrepresentations that have relevance to the substantive issues):
- 3.5.3 In **Paragraph 4** of the **WR**, the WRWA states that the Belvedere facility (i.e. the Riverside Resource Recovery Facility (RRRF)) is an important strategic waste management facility for WRWA and its constituent councils. Whilst RRRF may be strategic, it is a facility which has been developed, financed and is operated by Riverside Resource Recovery Limited (RRRL) as a commercial EFW facility, currently used for the disposal of waste from several local authorities, including WRWA, and commercial parties. **Paragraph 4** of the **WR** implies that RRRF is an asset of WRWA and its constituent councils, which is incorrect. RRRF does not just serve the WRWA.
- 3.5.4 Furthermore, it is important to note that the Cory Group uses several waste transfer stations on the river for the purpose of transferring waste to RRRF. The two WRWA transfer stations referred to in the WRWA WR are two of the four waste transfer stations which are used by the Cory Group for this purpose. The other two are leased from other local authorities. RRRL also has the ability to import all waste to the facility from the Port of Tilbury (if sourced from within London; or 115,000 tonnes from outside London) which opportunity is not currently utilised.
- 3.5.5 In any event, the categorisation of WRWA as a "funder of last resort" in **Paragraphs 20** and **28** is incorrect. In a termination scenario, WRWA has an obligation to make a payment of compensation to RRRL (with the amount of such compensation dependent upon the cause of termination) and, in return, may take ownership of either the assets of, or shares in, RRRL. One of the several mechanisms by which WRWA can take such ownership of the assets in RRRL is by taking over the funders' security package. However, this is the only way in which WRWA could conceivably be categorised as a "funder". There is no obligation on WRWA to take any financing risk or to act as a funder in any way. Further, it is unlikely that WRWA would take ownership of the assets as the WMSA only underwrites c.70% of the current RRRL debt package (decreasing over time) and therefore funders are far more likely to exercise step in rights prior to the WRWA being given the option.
- 3.5.6 Regarding **Paragraph 21**, the Applicant notes that during the period up to financial close, there were concerns regarding the RRRF's ability to raise finance and it is correct that certain economic variables moved in an adverse direction at that time. These costs were passed onto WRWA through the gate fee mechanism. However, following financial close, in the wake of the Lehman Brothers bankruptcy, the funders were themselves unable to syndicate much of the debt, as they had

intended. This triggered a right (under an agreed "market flex letter") to require the margins on the loans to be increased on several successive occasions over the following 12 month period. This subsequent significant increase in the cost of debt for RRRF was borne entirely by RRRL and its owners, with a significant financial impact upon the shareholders' returns from their investment. None of these additional costs were passed onto WRWA, which declined to bear any additional risk.

- 3.5.7 Further, in relation to **Paragraph 23** of the **WR**, the Applicant notes that the construction, operation and financing of RRRF were carried entirely at the risk and cost of RRRL.

Purpose of the lease and sub-lease

- 3.5.8 The categorisation of the lease and sub-lease arrangements in **Paragraph 22** of the **WR** misconstrues the original purpose and effect of these arrangements:

- 3.5.9 The original purpose of the lease and sub-lease arrangements was simply to ensure that, on a termination of the WMSA in circumstances where WRWA was required to pay compensation to RRRL, the obligation of RRRL to transfer its assets to WRWA could be secured. In the event of RRRL's insolvency, a contractual obligation to transfer these assets to WRWA is likely to have been ineffective. Therefore, the lease and sub-lease arrangements were instituted to ensure that WRWA could automatically take a transfer of RRRF on termination of the WMSA, by terminating the sublease to RRRL, thereby leaving WRWA as the lessee in sole possession of RRRF.

- 3.5.10 In order for WRWA to have security for the transfer of the RRRL assets, the sub-lease and/or the Protective Provisions need to cover and/or provide the necessary rights over all assets required to operate and maintain RRRF. Therefore, as plots 02/02, 02/09, 02/11¹⁸, and 02/30 are not currently required to operate and maintain RRRF and plots 02/16, 02/17 and 02/56 benefit from the continued access requirements under the Protective Provisions, the lease/sub-lease arrangements with WRWA do not need to cover this land in order to provide WRWA with the security it has always had under the WMSA for current waste disposal arrangements.

- 3.5.11 The Applicant notes that this lease/sub-lease arrangement is the same as the equivalent arrangement which was put in place at approximately the same time on the Greater Manchester Waste PFI Project, where the EFW facility was also developed by one of the sponsors on a semi-merchant basis. On that project also, the rights of the Greater Manchester Waste Disposal Authority (to take over the plant on a termination) were also secured in the same way.

- 3.5.12 Therefore, the lease and sub-lease arrangements were not designed to provide WRWA with 'protection' in case of changes in law, nor initially to secure the residual

^{18 18} Note: The Book of Reference (**4.3, REP2-010**) lists WRWA's interest in plot 02/12. This is an error and in fact the reference should be to plot 02/11. This amendment will be picked up in the next iteration of the Book of Reference to be submitted at Deadline 4.

rights to RRRF. As the documentation progressed, it occurred to all parties that the lease/sub-lease arrangements would also provide effective security for the residual rights, but this was only an ancillary consideration of these arrangements and similar protection could have been obtained in another manner. The Applicant has offered such other protection during negotiations in relation to the small portion of surplus land RRRL is intending to sell to REP, and further, the lease/sub-lease arrangements under the RRRF site will continue unimpeded throughout the term of the WMSA and residual value period.

3.5.13 It has not, to the Applicant's knowledge, previously been suggested that the lease/sub-lease arrangements were in any way linked to change in law concerns. The relevant change in law provision in the WMSA could exist without the lease/sub-lease arrangements being in place.

Statutory Undertaker Issue

3.5.14 **WRWA's WR** at **Paragraph 6** states the following:

3.5.15 *"WRWA is a statutory undertaker under **Section 8** of the **Acquisition of Land Act 1981**. It is a person "authorised by enactment" to carry on an undertaking which falls within **Section 8(1)(a)**, in that not only does it work docks from which its waste barges operate, but its undertaking is concerned with the transportation of waste by water."*

3.5.16 It is noted that the WR is supplemented by the legal submissions made by Counsel for WRWA at the CAH on 6 and 7 June 2019. Those legal submissions will be responded to at Deadline 4, to the extent that the Applicant considers it necessary given the Applicant's position set out below.

3.5.17 **Section 127** of the **PA 2008** defines statutory undertakers by reference to **Section 8** of the **ALA 1981**. The relevant provisions of **Section 8** of the **ALA 1981** state:

In this Act, unless the context otherwise requires, "statutory undertakers" means—
(a) any person authorised by any enactment to construct, work or carry on—
(i) any railway, light railway, tramway, road transport, water transport, canal or inland navigation undertaking, or
(ii) any dock, harbour, pier or lighthouse undertaking,

3.5.18 **Section 8(1)(a)** is clear that the term "statutory undertaker" refers to a person "authorised by any enactment to construct, work or carry on..." one of the cited types of undertaking. In this instance, the WRWA says its undertaking is the working of docks and water transport. In this regard there must be a specific enactment authorising the construction and operation of the relevant undertaking. No such enactment is identified by the WRWA because no such enactment exists. By reason of this issue alone, as a matter of law it follows that WRWA is not a statutory undertaker for the purposes of **Section 8** of the **ALA 1981** / **Section 127** of the **PA 2008**.

3.5.19 The 'general' application of **Section 8**, as advanced by the WRWA, is simply not justified. Such an interpretation would be in conflict with the words of the statutory provision itself and would be inconsistent with the purpose of **Section 127** of the **PA 2008**. **Section 127** is not concerned to protect general functions conferred on statutory bodies, but comprises specific protection in respect of certain (not all) designated statutory undertaker's land held or required for the purposes of its undertaking. WRWA refers to the Environmental Protection Act 1990 and the Waste Regulation and Disposal (Authorities) Order 1985. These statutory provisions provide statutory duties to the WRWA, but do not render it a statutory undertaker for the purposes of **Section 8** of the **ALA 1981**. Importantly, there is no reference to waste or waste disposal undertakings in that provision.

3.5.20 The Applicant's primary point is therefore that, in law, the WRWA is not a statutory undertaker by operation of **Section 8** of the **ALA 1981**. In concluding on this issue the Applicant makes the following points:

- The WRWA does not work any docks. The Authority owns the freehold to Cringle Dock and Smuggler's Way Waste Transfer Stations (WTS) but it does not work these WTSs – CEL (an entity in the Cory Group) does.
- The tugs and/or barges that are used by RTL (a subsidiary of RRRL) to transfer waste from the WTSs to RRRF are owned by RRRL, not WRWA. Thus the WRWA has no role in the transport of waste by water.
- WRWA's statutory role and purpose is to dispose of waste; it is not a water transport or dock undertaking. How the WRWA elects to dispose of waste is not determined by statutory provision; it is a matter for the WRWA. That the WRWA elects to dispose of waste via a contract with a third party that utilises docks and water transport as its solution to the services, does not render it a water transport undertaking / dock undertaking.
- As noted by the Applicant at the CAH, it cannot have been the intention of Parliament that this 'election' on the part of WRWA means that it is conferred with the status of Statutory Undertaker. Such application of the legislation would mean that whilst WRWA has the status of Undertaker, the East London Waste Authority (which has not elected to have its waste transferred by means of docks and river) does not have that status, notwithstanding that both organisations were created by precisely the same statutory instruments/enactments. Similarly, it would mean that WRWA is currently an Undertaker, but would lose/regain that status periodically depending on how they elected to dispose of their waste in any particular year (ie whether or not they elected to contract that their waste be transferred by way of docks/river). Again, such is clearly not a sensible approach to the legislation.
- If one follows WRWA's argument through, that they are a water transport undertaker, because waste that they have statutory responsibility for is transported by water, then it would also make West London Waste Authority a railway undertaking on the basis that it has waste transferred from its waste

transfer stations in the capital to Severnside in Avonmouth by rail. Clearly this proposition is incorrect.

- 3.5.21 On the basis of the foregoing, the Applicant is entirely satisfied that the WRWA is not a statutory undertaker for the purposes of **Section 127** of the **PA 2008**. The Examining Authority will recall that the WRWA did not originally claim the status of Statutory Undertaker (it did not do so in either its response to section 42 notification or its Relevant Representation). This belated attempt to claim that status is misconceived.
- 3.5.22 The WRWA is not a Statutory Undertaker. As such, the serious detriment test applied by **Section 127** does not apply to WRWA and no further consideration need be given to it.

Negotiation Issue

- 3.5.23 The Applicant disputes the WRWA's contention that it has failed to make meaningful attempts, either before the DCO Application was made or since its submission, to acquire the necessary land interests by agreement or to renegotiate the WMSA. As such, it rejects the contention that: (a) it has offended the spirit and purpose of the *Planning Act 2008: Guidance related to procedures for the compulsory acquisition of land* (b) it is contrary to the public interest in maintaining WRWA's position and (c) is a misuse of PA 2008 powers.
- 3.5.24 The Applicant notes that discussions commenced on 21 August 2017, whereby the Applicant provided background information and supporting materials on the Proposed Development to WRWA. On 22 November 2017 Nick Pollard, then CEO of the Cory Group, Andy Pike (Strategic Infrastructure Projects Director) and Julian Walker (COO) met with the WRWA board to explain the Proposed Development. This resulted in further communications between Mark Broxup (of WRWA) and Nick Pollard. Accordingly, a year before the submission of the DCO Application, the Applicant conducted open and transparent discussions with the WRWA about its proposals and the need to find a negotiated solution that would enable a voluntary agreement to be reached. The Applicant notes that given the complex nature of the WRWA's requests, which went beyond land issues and into complex commercial and "moral" arguments, it was appropriate to seek a 'holistic' solution, and not simply present an offer in respect of the land interest the Applicant was seeking to acquire.
- 3.5.25 On 5 February 2018, some nine months before the DCO Application was submitted (21 November 2018), the Applicant wrote to the WRWA with a proposal to sub-divide the lease arrangements to and reach a voluntary agreement (see **Annex 6** to the **WRWA WR** and see further below). Before a commercial offer could be made, proposed solutions to reach a voluntary agreement needed to be discussed. This was the route taken by the Applicant, which it considers to be a reasonable and justified approach. The Applicant refers to the consultation log at **Appendix C** to the **Statement of Reasons (4.1, REP2-008)** which shows the list of dialogue between the Applicant and the WRWA as at Deadline 2.

3.5.26 The Applicant highlights that **Paragraph 32** of the **WR** is misleading and somewhat misrepresents the original correspondence:

- the WRWA suggests that the letter of 5 February 2018 recognised that there was a "risk" that the WRWA services could be "interrupted". However, the letter does not in fact refer to any risk to the WRWA services – it refers to a temporary risk to vehicle access. The letter states that "*whilst these roadworks appear to be relatively straight forward, there is a possibility that the work could unexpectedly temporarily disrupt current vehicle access to Riverside One*". As all WRWA waste arrives at RRRF by river and ash is transported from the site by river, any such temporary disruption of vehicle access to RRRF would have extremely limited impact, if any, upon RRRF's ability to process the WRWA waste.
- whilst the WRWA WR states that the letter provides the "*barest detail in relation to the use of the existing facility and other infrastructure*", the letter in fact provides material detail regarding the Proposed Development.
- the WR states that the letter provided no practical proposals for protecting WRWA's interest in RRRF/Riverside One. In fact, the letter referred to the use of an interface agreement or a set of protective provisions that would form part of the DCO Application, thereby setting out several mechanisms which could be used to protect WRWA's interests. The Applicant has since provided draft protective provisions and draft interface agreement to the WRWA, neither of which generated any substantive response until the CAH. Indeed the Authority only acknowledged receipt of these materials at the CAH.

3.5.27 The Applicant also considers that the WRWA misrepresents the letter dated 25 March 2019 from the Applicant to WRWA in **Paragraph 35** of the **WR**:

- The WR states that the agreed documents would require the agreement of lenders and that no agreement could come into effect before financial close. However, the letter stated clearly that although final documentation would only come into effect upon successful financing and it would require the lenders final approval (as is the case with all infrastructure projects), nonetheless the agreement between the Applicant/Cory Group and the WRWA would be drafted as a "binding letter of intent" to ensure certainty for both parties. Proposed terms of a binding agreement were shared with the WRWA in May 2019, and a further proposal to put in place legally binding arrangements were presented to the WRWA on 4 June 2019, which have since been reiterated on the record during the CAH on 7 June 2019. As is confirmed in the Applicant's oral summary of the CAH:

"The Applicant is prepared to enter into a deal with the Authority that is legally binding on all parties and is not contingent on lender approval. The deal itself will only become effective on successful funding. The deal that is reached between the Applicant and the Authority will be part of the package to lenders and will include a commitment that the Applicant will not compulsorily acquire interests in land if lenders do not consent to the deal agreed with the Authority.

There is one caveat, which remains a risk to the Applicant and not the Authority. If the lenders ask for amendments to the deal between the Applicant and the Authority then the Applicant would want to be able to go back and seek to amend the terms agreed with the Authority. It is asked that in such circumstances, the Authority negotiates with the Applicant in good faith. If no agreement can be reached then that would be the Applicant's problem. It would either have to persuade the funders to change their position (or find alternative funders), or the Proposed Development would not go ahead. This position is one that the Applicant feels it has put to the Authority previously, but has been misunderstood. To be unequivocal, the Applicant is prepared to enter into a legally binding deal now with the Authority which is not contingent on lenders' consent."

- The WR omits to explain that the meeting on 28 February 2019 was comprehensive and dealt with all issues between the parties, including:
 - the update on the NSIP process;
 - the project objectives, design, interface between all parties and the means by which RRRL would be protected;
 - how WRWA's concerns would be addressed regarding sub-division and sale of land, change in law and treatment of food waste, interface and shared assets, disruption to the EFW services (if any), and the way in which termination and handback would occur.
- This discussion also included details on the protective provisions in the proposed DCO and the draft Master Interface Agreement, which the Applicant presented to the WRWA.

3.5.28 In relation to **Paragraph 36** of the **WR**, the Applicant notes that its subsequent offer to WRWA on 24 April 2019 (contained in an **Annexure 6** to the **WRWA's WR**) was detailed and consisted of seven pages of proposals, covering a wide variety of issues which had previously been raised by the WRWA. Despite repeated requests from the Applicant to the WRWA, no detailed responses to these offers containing counter offers or requests for further information were proffered. Several potential solutions to concerns were explored, but no constructive response or counteroffer to the Applicant's proposals were received until 12 June 2019. These are being considered and will be discussed with the WRWA in person on 17 June 2019.

3.5.29 Finally, **Paragraph 37** of the **WR** states that very limited contact was initiated by the Applicant. This is not correct, as meaningful attempts to acquire the land interests and to engage on all outstanding points have been made on numerous occasions.

Contractual Issues

3.5.30 **Paragraph 41** of the **WRWA WR** grossly over-emphasises the value of the land that is the subject of compulsory acquisition and the extent to which WRWA bears any risk in relation to this site. The Applicant will provide, at Deadline 4, a detailed

response to the **Annex 3** "Note on Impact" and the supplemental paper that was only handed to the Applicant by the WRWA at CAH.

Change in law Issue

3.5.31 A detailed response to the "change in law" issue will be provided at Deadline 4 in response to the "Note on Impact" at **Annex 3** of the **WR**, as augmented at the CAH.

3.5.32 However, the Applicant notes that at **Paragraph 47**, the **WRWA** has indicated that the compulsory acquisition would have profound implications for the WRWA which could not be compensated for under the Compensation Code.

3.5.33 The Applicant notes that it has made a number of proposals to compensate the WRWA and address its "non-compulsory acquisition" concerns, which have included:

- provision of bonds for land value payable on termination of the WMSA;
- the offer of an option to take capacity at REP for the treatment of food waste in the event of a change in law acquiring such separate food waste collection and treatment;
- the amendment to the relevant change of law provision to indemnify the WRWA for incremental financial exposures of the WRWA following a qualifying change in law;
- the inclusion of protective provisions in the dDCO in order to provide statutory protection for the WRWA's interests;
- the provision of a draft Master Interface Agreement between RRRL and REP to manage construction and operational risks and liabilities between REP and RRRF;
- the provision of a draft Deed of Understanding between members of the Cory Group (including the Applicant) and the WRWA in order to formalise in a binding manner the agreement to be reached with the WRWA, further developed in subsequent correspondence; and
- the payment of financial compensation for any "shared assets" which will be used by both RRRF and REP (although such payments are not required under the WMSA nor are the subject of compulsory acquisition).

3.5.34 The Applicant received a detailed response from the WRWA to its proposals on 12 June 2019, which it is in the process of considering.

3.5.35 At Deadline 4, following receipt of the WRWA's written summary of its oral case put at the CAH, the Applicant will set out, with reasoning, which elements of the WRWA's concerns are commercial matters and which are matters which can properly be considered in the context of compulsory acquisition. In the Applicant's

view, most, if not all, of the WRWA's case is a commercial case and which should, therefore, be disregarded for compulsory acquisition purposes.

Conflict between RRRF and REP

3.5.36 The draft protective provisions included in **Part 1 of Schedule 10** to the **dDCO** have been prepared in consultation with RRRL. The Applicant understands that RRRL is content with the protection afforded to it in those provisions and considers that any risks on the RRRF relating to the construction and operation of REP are either mitigated through the protective provisions or will be adequately addressed in and managed through the Master Interface Agreement (once final terms have been agreed).

3.5.37 The Applicant welcomes the WRWA's comments on the protective provisions that were handed to it at the CAH on 6 June 2019, and is currently reviewing those comments. The Applicant will respond to these comments, as well as **Paragraphs 42-44** of the **WR**, at Deadline 4.

Serious detriment

3.5.38 **Paragraphs 7 and 45** of the **WR** state that, if the relevant parcel of land was purchased and not replaced this would have "*serious detriment*" on the carrying on of WRWA's undertaking. On behalf of the Cory Group, the Applicant vigorously denies that this will be the effect of a compulsory acquisition of the WRWA's interest, who's interest is in land that does not form part of the RRRF, but instead adjoins the site on which the existing RRRF is located. As such it is surplus to that facility, providing that access to the site by road is adequately provided for within the protective provisions.

3.5.39 Insofar as the reference to "*serious detriment*" relates to the statutory test contained in section 127 PA 2208, such reference is misconceived. As explained earlier in these submissions, the WRWA is not a Statutory Undertaker and as such the 'serious detriment' test does not apply.

3.5.40 However, the Examining Authority can note that insofar as WRWA says its "*undertaking*" comprises the working of docks and transportation of waste by water, the land which the Applicant is seeking to compulsorily acquire is not used, nor would it be used, for either of these 'undertakings'. As such, there can be no question of the compulsory acquisition having any material impact.

3.5.41 If, as the Applicant contends, WRWA's statutory purpose is the disposal of waste. the use of the compulsory acquisition powers would not cause any detriment to WRWA's ability to meet these statutory obligations in any way.

Public Interest Case

3.5.42 **Section 122** of the **PA 2008** provides that for the Secretary of State to grant an order authorising the compulsory acquisition of land he must be satisfied of two tests. The second of those two tests is that there is a case in the public interest for

the land to be compulsorily acquired. The Applicant seeks to frame its representations below in the context of this test.

- 3.5.43 The WRWA's contention is that there is no compelling public interest case which would justify authorisation of compulsory acquisition powers to deliver REP. The Applicant consider that the ExA should recommend that the Applicant be granted powers of compulsory acquisition of the WRWA's leasehold interest over plots 02/02, 02/09, 02/11, 02/16, 02/17, 02/30 and 02/56, secure in the knowledge that the WRWA can be compensated for its leasehold interest, with its concerns regarding the efficient future operation of the RRRF (and thus the security of its waste disposal route) addressed through the protective provisions being afforded to RRRL.
- 3.5.44 In light of the identified urgent need for the Proposed Development as set out in the National Policy Statements EN-1 and EN-3, there is manifestly a compelling case in the public interest which justifies the authorisation of compulsory acquisition powers.
- 3.5.45 There is no requirement for a lease to be retained over plots 02/02, 02/09, 02/11, 02/16, 02/17, 02/30 and 02/56 to provide for a change in law scenario. This is because the Applicant has already offered to WRWA an option for capacity in REP in respect of the anaerobic digester, which is the only foreseeable change in law identified by any party to the Examination, and – recognising that there may be other qualifying changes in law that are not foreseeable at this time – has further offered an amendment to the relevant change of law provision in the WMSA to indemnify the WRWA for any incremental financial exposure of the WRWA following a qualifying change in law that results from the inability to access the land that has been sold to REP.
- 3.5.46 WRWA will retain its security over the RRRF site through to the end of its contract and residual rights period (2046) and in the event of default/termination of the WMSA the WRWA will retain its ability to take over RRRL and dispose of waste at the RRRF. The Applicant will provide further detail on the contractual impact at Deadline 4.
- 3.5.47 There is no reason why there should be any conflict between the construction and operation of REP and the continued operation of RRRF. This relationship will be managed by a master interface agreement and protective provisions to be included in the DCO. The Applicant will go into further detail at Deadline 4 to explain why no conflict between the two facilities will exist.
- 3.5.48 On the basis of the above there is no public interest case in maintaining WRWA's land interests in plots 02/02, 02/09, 02/11, 02/16, 02/17, 02/30 and 02/56 when balanced against the public interest in REP coming forward.
- 3.5.49 **Section 122** requires the Secretary of State to be satisfied that the following tests are met before he is able to grant an order including powers of compulsory acquisition:

- the land is: required for the development to which the development consent relates; is required to facilitate or is incremental to that development or is replacement land which is to be given in exchange for the order land under **Section 131** or **132**.
- that there is a compelling case in the public interest for the land to be acquired compulsorily.

3.5.50 For the reasons set out in this document the Applicant consider that these tests have been met.

3.6 Winckworth LLP on behalf of Port of London Authority

Introduction

3.6.1 The Port of London Authority (PLA) raises two matters about the Proposed Development in its Written Representation (WR). These relate to:

- The area of the River Thames within the Order Limits; and
- The exercise of powers within the River Thames.

3.6.2 These matters are responded to in turn by the Applicant below.

Response

3.6.3 As noted in **Paragraph 3.4** of the respondent's WR, a draft Statement of Common Ground (SoCG) between the PLA and the Applicant was submitted at Deadline 2 (**REP2-052**). A final SoCG, which has been signed by both parties and was submitted on Friday 31 May 2019. The concerns raised by the PLA in its WR are addressed within **Section 2.3** of the **SoCG (8.01.07, Rev 1)**. A summary of the agreement reached between the parties is outlined below.

Area of the River Thames within the Order Limits

3.6.4 In discussion with the PLA, the Applicant has revised the Order Limits to exclude the River Thames, except for several discrete areas that are necessary for flood bank surveying and, where identified, repair. The Applicant confirms that the revised Order Limits as shown on Sheet 2 of the **Works Plans (2.2, Rev 1, REP2-004)** submitted at Deadline 2, is consistent with the refinements agreed with the PLA at **Paragraph 2.3.2** of the **SoCG (8.01.07, Rev 1)**.

Exercise of powers within the River Thames

3.6.5 The Applicant and the PLA agreed a new article for insertion in the draft Development Consent Order (dDCO) making clear that the dDCO does not remove any obligation to obtain the PLA's licence under the 1968 Act for the carrying out of works or operations within the River Thames.

3.6.6 The Applicant confirms the agreed wording (**Paragraph 2.3.2** of the **SoCG**) is included in **Article 7** of the **dDCO (3.1, Rev 1, REP2-006)** which was submitted at Deadline 2.

3.6.7 The matters outlined in the PLA WR are therefore considered resolved as set out in the SoCG between the two parties.

3.7 Womble Bond Dickinson (UK) LLP on behalf of Network Rail

Introduction

- 5.3.1 Network Rail Infrastructure Limited's (Network Rail) Written Representation is summarised below.
- 5.3.2 Network Rail objects to the DCO Application on the basis that the **draft Development Consent Order (dDCO) (3.1, APP-14)** does not contain Network Rail's standard Protective Provisions. Network Rail contends that without its standard Protective Provisions, the confirmation of a development consent order allowing the promoter to acquire rights over and above Network Rail's operational railway would significantly harm Network Rail's role and ability to undertake its obligations as an infrastructure owner and operator. It would also be likely to leave Network Rail acting inconsistently with its Network Licence obligations in respect of its residual network.
- 5.3.3 Network Rail submits that its standard Protective Provisions should be included in the Development Consent Order should it be made.
- 5.3.4 Network Rail's general approach to applications for powers of compulsory acquisition in development consent orders is that in order to comply with its Network Licence, it requires that the acquisition of the rights required for a scheme are dealt with by private treaty via a series of template agreements.
- 5.3.5 The Protective Provisions provide the protections for Network Rail which allow this to happen. Network Rail does not object in principle to the construction of the works through the airspace of the railway and has been working with the Applicant in order to agree terms which would allow Network Rail to withdraw its objection.
- 5.3.6 However, the making of the Development Consent Order in the form of the **dDCO (3.1, APP-14)** would be likely to cause serious harm to the carrying out of Network Rail's statutory undertaking contrary to **Sections 127 and 138 of the Planning Act 2008**.
- 5.3.7 In the event that the amendments set out in its Written Representation to the **dDCO (3.1, APP-14)** are made, Network Rail would be able to withdraw its objection/written representation.

Introduction

- 5.3.8 Network Rail's Written Representation was prepared in the context of the **dDCO (3.1, APP-14)**, the **Book of Reference (4.3, APP-18)** and the **Land Plans (2.1, APP-07)**. The Applicant has since revised these documents. The relevant documents are as follows:
- **dDCO (3.1, Rev 2)** submitted at Deadline 3;
 - **Book of Reference (REP2-010)**;

- **Statement of Reasons (REP2-008)**; and
- **Land Plans (REP2-003)**.

5.3.9 These revised documents amend the extent of land within the Order Limits which is either under the freehold ownership of Network Rail or land in which Network Rail retain rights in. The extent of Network Rail's land interests are set out in the Book of Reference (4.1, REP2-010) and Land Plans (2.1, REP2-003).

Consultation with Network Rail

5.3.10 The **Statement of Reasons (4.1, REP2-008)** records the consultation that has been undertaken up to Deadline 2. Since Deadline 2, the Applicant has had a further meeting with Network Rail on the 23 May 2019. The following matters were discussed in that meeting which are of relevance in the context of Network Rail's Written Representation:

- The Applicant is providing additional information to Network Rail which it requires for its clearance¹⁹ process; and
- Network Rail will be providing to the Applicant, property heads of terms and a draft Framework Agreement.
- Discussions with Network Rail are progressing well and the Applicant considers that there is no reason to consider that an agreement will not be reached with Network Rail over the Protective Provisions contained in the dDCO by the end of the Examination, thereby enabling Network Rail to withdraw its holding objection.

Amendment to Article 3(3) of the DCO

5.3.11 The Applicant has no intention to do anything that would interfere with Network Rail's overhead line infrastructure in any scenario where the Electrical Connection crosses within a bridge which is located over Network Rail's infrastructure. In this scenario, where the Electrical Connection passes over the railway line in an overbridge, it is the expectation that the Applicant's works would remain within the vertical extent of the public highway above. The Applicant has no intention to do anything that would interfere directly with Network Rail's underbridges, where the railway line passes over the Electrical Connection and where it is to be constructed in the public highway below. The Electrical Connection works at these locations would comprise a trench in the highway below and machinery would only be operating in the airspace below the railway bridge above.

5.3.12 At the Cray Mill Underbridge, where works under Network Rail would be off the public highway, the Applicant has agreed to provide more information on the

¹⁹ Clearance is Network Rail's internal process for authorising the disposal of any interest in land.

potential nature of drilling/boring works, which would seek to avoid any structural interaction with the adjacent underbridge.

5.3.13 In all scenarios, the Protective Provisions being discussed with Network Rail would afford sufficient protection to Network Rail.

5.3.14 The amendment that has been requested by Network Rail to **Article 3(3)** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3 is unnecessary to ensure that Network Rail is protected. **Schedule 10, Part 5, Paragraph 43** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3 includes provisions that require, where any work is to be undertaken within 15 metres of any railway property, Network Rail's approval before such work is undertaken. Network Rail would simply need to withhold approval if any proposals were put forward by the Applicant which would unacceptably affect its infrastructure.

5.3.15 The Applicant therefore does not consider that the amendment being sought by Network Rail is necessary.

5.3.16 At Erith Station the trench for the Electrical Connection will be confined to a roadway outside the confines of the station building and away from both the permanent way boundary and the overhead line.

Amendment to Protective Provisions

5.3.17 The Applicant is pleased to receive comments on its suggested draft Protective Provisions, which were included in the submission draft Development Consent Order absent of confirmation from Network Rail of the Protective Provisions it sought to have included. The Applicant's position in respect of the amendments sought by Network Rail is set out below.

5.3.18 The Applicant is considering Network Rail's suggested amendments to **Schedule 10, Part 5, Paragraph 42** (reference to additional articles). The Applicant will update the ExA in a future iteration of the dDCO.

5.3.19 The Applicant notes Network Rail's request that **Schedule 10, Part 5, Paragraph 53(6)** should be deleted. The Applicant is considering Network Rail's suggested amendment and it will update the ExA in a future iteration of the dDCO.

5.3.20 The Applicant considers there is no reason why the Protective Provisions for the benefit of Network Rail are not capable of being agreed by the end of the examination. On this basis the Applicant expects to be able to address Network Rail's comments in its Written Representation in respect of **Sections 127** and **138** of the **PA 2008** in due course.

4 Non-statutory Organisations

4.1 Friends of Crossness Nature Reserve

Introduction

4.1.1 This is a response to the Friends of Crossness Nature Reserve (FoCNR) and their Written Representation in relation to the Riverside Energy Park (REP), submitted at Deadline 2. Within their Written Representation, FoCNR raised a number of comments. These relate to:

- Cable route;
- Design – solar panels – bio-solar green roof;
- Construction/operational noise;
- Lighting;
- Shading;
- Air Quality;
- Waste Management;
- Species General;
- Barn Owl;
- Reptiles;
- Townscape and Visual Impact Assessment;
- Health and Wellbeing;
- Cumulative Impact on Wildlife; and
- Compensation and Mitigation.

4.1.2 Each of these issues are considered and addressed in turn.

Response

Cable route

4.1.3 The Applicant is committed to continue to explore options with UK Power Networks (UKPN) to further minimise environmental effects, where practical. Following the informal communication with FoCNR in relation to the removal of the Electrical Connection route option from Crossness Nature Reserve, this commitment has

been formalised through the detailed update on the status of the Electrical Connection, as provided in the **Electrical Connection Progress Report (8.02.07, REP2-058)** comprising part of the submission for Deadline 2. This reports that the Electrical Connection has now been refined to a single overall route corridor from the REP site to the Electrical Connection Point at the Littlebrook substation. This refinement is reflected in updated submissions of the **Works Plans (2.2, REP2-004)**, **Land Plans (2.1, REP2-003)**, **Access and Public Rights of Way Plans (2.3, REP2-005)**, **Book of Reference (4.2, REP2-010)**, **Statement of Reasons (4.1, REP2-008)** submitted at Deadline 2 as well as the updated **draft Development Consent Order (dDCO) (3.1, Rev 2)** submitted at Deadline 3.

- 4.1.4 Following the above-mentioned consultation with FoCNR, the Electrical Connection route through Crossness Nature Reserve has been removed and as such the associated potential direct effects would no longer occur.
- 4.1.5 A short length of the western verge of Norman Road lies within the identified LNR designation but this slither of land comprises verge adjacent to the highway and is outside the managed site of Crossness Nature Reserve and beyond the boundary ditch.

Design – solar panels – bio-solar green roof

- 4.1.6 The Applicant notes that the WR make several comments with regards to the design of the Proposed Development, this includes:
- The choice of the preferred roof options (stepped roof); and
 - The incorporation of bio-solar green roofs to the project.

Stepped Roof Design

- 4.1.7 A **Design and Access Statement (DAS) (7.3, APP-104)** accompanies the DCO Application and describes the design evolution of the REP site and the Main REP Building. As a result of the process set out in the DAS, a stepped roof design was selected which will seek to ensure that the visual impact of the Main REP Building on Crossness LNR is minimised from the outset of the detailed design process. The stepped design allows the maximum height of the Main REP Building to be reduced to the lowest level reasonably practicable and minimises the building massing required to accommodate the internal plant, equipment and facilities. This has multiple benefits to Crossness LNR, in that shading and visual effects are reduced as far as practicable. The stepped roof design is therefore considered by the Applicant to be the most appropriate solution to mitigate visual effects as far as practicable, whilst maximising the opportunity for solar energy output.
- 4.1.8 **Paragraphs 11.8 and 11.9** of the **London Borough of Bexley's (LBB) Local Impact Report (REP2-082)** do not challenge the stepped design:

“...The skyline in some views will change, but the proposal has the potential to create a new focal point within the Thames Policy Area as recommended in Saved Policy TS13.

The final design of the scheme is not known at this stage, but it is anticipated that a high quality of design can be achieved in line with Saved Policy ENV39, Saved Policy TS13 and Core Strategy Policy CS03.”

- 4.1.9 On balance, given the benefit of the stepped roof design over other options in relation to the Crossness LNR (including maximising renewable energy generation), the Applicant has taken the decision to progress with a stepped roof design.

Bio-solar Green Roofs

- 4.1.10 The Applicant has submitted a **Design Principles** document (7.4, APP-105) which sets out how the REP development will progress through the detailed design stage (and which is secured via **Requirement 2** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3). Whilst the potential for green roofs and walls in developments generally is acknowledged by the Applicant, this has to be set against the design, maintenance and safety requirements of the project. This is acknowledged in **Paragraph 2.6.26** of the **Design Principles (7.4, APP-105)** which states that *“The existing flood embankment will be the focus of onsite biodiversity gain, with any remaining opportunities within the final on site design being explored where possible. Any further necessary biodiversity net gain will be secured through offsetting through a mechanism secured through the final Biodiversity and Landscape Mitigation Strategy.”*
- 4.1.11 **Design Principle DP 3.01** ensures that planting design is given due consideration within the constraints set out in the accompanying commentary. The Applicant will need to demonstrate how the detailed design accords with the design principles, including how planting design has been given the necessary consideration in the final design. The London Borough of Bexley will ultimately be the decision maker on the final design, and the planting incorporated into the final design, when it approves the details under **Requirement 2** of **Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3.

Construction/operational noise

- 4.1.12 When characterising effects to ecological receptors (such as breeding and wintering birds) and establishing whether an effect is significant or not, the assessment examines potential impacts on that receptor with reference to the extent, magnitude, duration, timing, frequency, and reversibility of the impacts. This approach is set out in **Paragraph 11.5.20** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**.
- 4.1.13 As shown on **Figure 11.5** of the **ES (6.2, APP-060)**, many of the breeding bird species of conservation concern, such as Cetti's warbler, linnet and reed bunting, have been recorded breeding within or in close proximity to the main REP site, where operational activities associated to the RRRF facility are ongoing. This

indicates these species are resilient to noise and visual disturbance from the operational RRRF facility.

- 4.1.14 **Paragraph 11.9.10 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** identifies that noise levels were monitored with respect to existing and predicted levels during construction of REP at a representative location within Crossness Local Nature Reserve (LNR) where breeding birds could be expected to be found. This location, as identified as **Location 3** on **Figure 11.10** of the **ES (6.2, APP-061)**, is at the southwest corner of the 'West Paddock' where lapwing are known to breed. The assessment shows that the temporary construction noise levels would increase from 52 decibels (dB) to 62 dB during construction. To provide further context to the absolute levels, normal conversation noise levels are around 60 dB²⁰. Therefore, the predicted construction noise levels at Location 3 will be marginally above normal conversation levels.
- 4.1.15 The modelled increase in construction noise levels presents a worst case scenario that all construction activities would be undertaken at the same time, and would also not be the case continuously throughout the temporary construction period, but only during times of high construction activity. The peak construction month is noted as being month 13.
- 4.1.16 Given the resilience of birds nesting within habitats around the margins of the REP site, and that potential effects to breeding birds from disturbance during construction will be of low magnitude, and temporary and localised to the REP site and its immediate surroundings. **Paragraph 11.9.11 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)** concludes that construction disturbance will not affect the long-term distribution and abundance of the assemblage of breeding birds within the study area or its nature conservation importance. The effects are therefore classified as Not Significant.
- 4.1.17 **Paragraph 11.9.43 of Chapter 11 Terrestrial Biodiversity of the ES (6.2, REP2-023)** identifies that noise levels were monitored with respect to existing and predicted levels during operation of REP at Location 3. The assessment shows that operational noise levels would increase from 52 dB to 55 dB during daytime, and from 47 dB to 53 dB during night-time, which are considered minor increases. To provide further context to the absolute levels, normal conversation noise levels are around 60 dB. Therefore the predicted operational noise levels at Location 3 will be below normal conversation levels. The ES therefore concludes these modest increases on the breeding bird population of Local importance will be Not Significant.
- 4.1.18 The conclusions of the assessment of potential effects from REP set out in the ES, including from noise have been agreed with Natural England, as set out in **Statement of Common Ground** between the Applicant and Natural England (**8.01.05, REP2-051**), submitted at Deadline 2.

²⁰ Institute of Acoustics and Association of Noise Consultants (2015). Acoustic of schools: a design guide

Lighting

- 4.1.19 It is considered that the ES robustly addresses and assesses the potential effects to light sensitive biodiversity receptors (principally bats).
- 4.1.20 The Applicant has made commitments within the **dDCO (3.1, Rev 2)** submitted at Deadline 3, to ensure that lighting is compliant with relevant industry standards (i.e. Bats and artificial lighting in the UK, BCT & ILP), with the **CoCP (7.5, REP2-046)** and **Operational Lighting Strategy (Appendix K.3 of the ES) (6.3, APP-096)** to be submitted to and approved by the relevant planning authority under **Requirements 11 and 16** respectively of **Schedule 2 to dDCO (3.1, Rev 2)** submitted at Deadline 3. The proposed measures will be in accordance with industry guidance and will be sufficient in addressing potential effects, therefore effects on sensitive biodiversity receptors such as Crossness Nature Reserve and bats will be Not Significant. It is therefore considered that FoCNR's concerns on lighting have been adequately covered and secured.
- 4.1.21 As outlined above, the Applicant considers that sufficient mitigation and preventative measures are secured through the **draft DCO (3.1, Rev 2)** submitted at Deadline 3, in the form of the **Operational Lighting Strategy (Appendix K.3 of the ES) (6.3, APP-096)** to prevent lighting effects occurring to light sensitive species during operation of the Proposed Development. In terms of cumulative lighting effects to light sensitive receptors at Crossness Nature Reserve, condition 24 of planning consent for the data centre site (application reference **15/02926/OUTM**) requires a scheme of lighting for the site to be submitted to and approved in writing by the Local Planning Authority. The scheme must be assessed by an ecologist, with their findings presented in the form of an ecological lighting assessment for approval from the Local Planning Authority. The Applicant therefore considers that cumulative lighting effects to light sensitive biodiversity receptors at Crossness Nature Reserve would not be significant.
- 4.1.22 The conclusions of the assessment of potential effects from REP set out in the ES, including from lighting, have been agreed with Natural England, as set out in **Statement of Common Ground** between the Applicant and Natural England (**8.01.05, REP2-051**), submitted at Deadline 2.

Shading

- 4.1.23 In response to concerns from Interested Parties in relation to potential shading effects to Crossness LNR, the Applicant has undertaken further assessment of shading effects to Crossness LNR, as presented in the **Report on Shading Effects to Crossness Local Nature Reserve (LNR) (8.02.10, Rev 1)** submitted at Deadline 3. This has included further 3-dimensional modelling of the shadow cast across Crossness LNR from the Main REP Building, along with a commentary on potential ecological effects to the LNR.
- 4.1.24 The assessment has been undertaken on the basis of the maximum parameters as specified in **Table 1** at **Requirement 3 Schedule 2** of the **dDCO (3.1, Rev 2)** submitted at Deadline 3. As set out in the **Design Principles (7.4, APP-105)** this is

a worst-case scenario (see **DP 1.04, Paragraph 3.2.6, and DP 1.13**). At Deadline 3, the Applicant has submitted images based on the emerging design, showing the stepped roof. The images clearly show that any shading is restricted to early in the morning and has gone by approximately 8am.

- 4.1.25 The assessment demonstrated that due to the location, extent and duration of the shading, significant changes to habitats within the Crossness LNR, and species which they support are unlikely.
- 4.1.26 The assessment supports the conclusion of the ES in that *“Whilst there is potential for some minor changes in the botanical assemblage in these areas as a result of shading, this is considered to be unlikely. Therefore, effects from shading to Crossness LNR of County/Metropolitan importance, and Erith Marshes SINC of Local conservation importance, will be Not Significant”*.
- 4.1.27 The conclusions of the assessment of potential effects from REP set out in the ES, including effects from shading have been agreed with Natural England, as set out in **Statement of Common Ground** between the Applicant and Natural England (**8.01.05, REP2-051**), submitted at Deadline 2.

Air Quality

- 4.1.28 The Applicant notes the comments made in the WR in relation to Air Quality which raise the following matters:
- Impacts on human health from the REP facility itself and associated road traffic; and
 - Proximity of Anaerobic Digestion plant to Crossness Nature Reserve.

Human Health

- 4.1.29 **Table 7.37 of Chapter 7 Air Quality** of the **ES (6, REP2-019)** reports the assessment findings that there will be no likely significant air quality effects on human health as a result of the construction of the Proposed Development, when considered either in isolation or in combination with other planned developments.
- 4.1.30 A **Health Impact Assessment (HIA)** accompanies the DCO Application and is presented at **Appendix K.1** of the **ES (6.3, APP-094)**. The assessment shows that no likely significant adverse effects on human health are anticipated during the construction of the Proposed Development. Public Health England's (PHE) representation (RR-067) as responded to within **the Applicants Response to Relevant Representations (8.02.03, REP2-054)** confirmed that they are satisfied with the methodology used to undertake the assessment.
- 4.1.31 A **Human Health Risk Assessment (HHRA)** accompanies the air quality assessment and is presented in **Appendix C.3** of the **ES (6.3, REP2-040)**. The **HHRA (6.3, REP2-40)** considers the potential effects on human health arising from long-term exposure to dioxins and furans, dioxin-like polychlorinated biphenyls (PCBs) and trace metals emitted from the operation of the proposed ERF at REP.

Paragraphs 3.6.1-3.6.4 of the **HHRA (6.3, REP2-040)** and **Paragraph 7.9.41** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** conclude that no likely significant effects are anticipated in relation to long term exposure to dioxins and furans, dioxin-like PCBs and trace metals in operation.

- 4.1.32 **Table 7.34** of **Chapter 7 Air Quality** of the **ES (6.1, Rev 1, REP2-019)** provides the maximum ground level concentrations of nitrogen, sulphur dioxide and particulates within the study area. The assessment of potential effects on human receptors from these pollutants is presented in **Paragraphs 7.9.21 – 7.9.32** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**.
- 4.1.33 **Paragraph 7.13.2** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** reports the assessment findings that there would be no likely significant effects on human receptors during operation of the Proposed Development.
- 4.1.34 Furthermore, **Paragraph 21.1.3** of **Appendix K.1 HIA** of the **ES (6.3, APP-094)** concludes that no likely significant adverse effects on human health are anticipated during the operation of the Proposed Development. The assessment findings are that there may be some long-term beneficial effects on surrounding communities and vulnerable groups (such as those in social housing) associated with the provision of a secure energy supply (see **Paragraph 21.1.4** of **Appendix K.1 HIA** of the **ES (6.3, APP-094)**).
- 4.1.35 Further details on Human Health can be found in the Applicant's **Post Hearing Note on Public Health and Evidence (9.02.27)** submitted at Deadline 3.

Proximity of Anaerobic Digestion plant to Crossness Nature Reserve

- 4.1.36 As set out in **Section 11.9** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**, the effects of emissions from the Anaerobic Digestion plant are limited to the immediate vicinity of the REP site and are not cumulative with the emissions from the ERF because as reported in **Paragraph 2.3.2** of the **Applicant's Response to the ExA First Written Questions (8.02.03, REP2-055) (Q2.0.3)**, these occur in a different location, primarily as a result of the very different stack heights. The ES identified the potential for emissions from the Anaerobic Digestion plant to affect a small area of the Crossness LNR and Erith Marshes SINC adjacent to the Anaerobic Digestion plant through changes to the habitats and an increase in dominant grass species with a subsequent reduction in broadleaved species. However older marshes, such as this, are less sensitive to nitrogen deposition than new or evolving habitats (apis.ac.uk, 2018) and the areas of the LNR/SINC potentially affected are limited to marginal habitats in the immediate vicinity of the REP site (see **Figures 7.9 (Predicted Annual Mean NOx Concentration) (6.2, APP-056)** and **7.10 (Predicted Daily NOx Concentration) (6.2, APP-057)** of the **ES**). Habitats likely to be affected are not of high botanical diversity consisting of tall ruderal, semi-improved grassland, and scrub. Therefore, predicted effects to these designated areas of County/Metropolitan conservation importance are Not Significant.

4.1.37 As confirmed in **Paragraph 2.3.18** of the **SoCG with Natural England (8.01.05, REP2-051)** submitted at Deadline 2, it is agreed that the predicted effects through nitrogen deposition are Not Significant.

Waste Management

The Waste Hierarchy & Impact on Recycling

4.1.38 The Applicant notes the observations made in the WR regarding recycling rates and the UK Government/Greater London Authority (GLA) meeting its ambitious recycling targets.

4.1.39 As set out in **The Project and its Benefits Report (PBR) (7.2, APP-103)**, the Proposed Development treats residual waste at the appropriate level of the waste hierarchy. REP supports both regional and local waste management needs. In spite of the welcome improvements made in the prevention, re-use and recycling of waste within London, over two million tonnes of non-recyclable waste is currently sent to landfill or shipped overseas.

4.1.40 As demonstrated in the **PBR (7.2, APP-103)**, London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be operational after 2025. REP will help London transition to a low-carbon and self-sufficient city providing an appropriate alternative to treat London's waste which remains after recycling. This provides a substantial and reliable alternative to waste being sent to landfill or shipped overseas.

4.1.41 The ERF component of REP will not prevent recycling or hinder local recycling rates. Data gathered by WRAP and published in **Table 1** in its Gate Fee Report 2018²¹ clearly shows that the median gate fees at material recycling facilities and organic waste treatment facilities (e.g. anaerobic digestion facilities), which are preferred in the waste hierarchy, are significantly lower than gate fees at energy from waste plant and landfill facilities. To note, the median gate fees for recycling facilities and organic waste treatment facilities are also consistently lower than energy recovery or disposal each year. Waste management follows the most cost-effective solution, therefore the ERF component at REP will not hinder progress in that regard. Furthermore, WRAP's Gate Fee Report 2018 also shows that the median anaerobic digestion gate fee for England continues to decline. Therefore, REP will support the drive to move waste further up the waste hierarchy by preventing residual waste going to landfill and work alongside the Mayor's recycling targets and policy aspirations.

4.1.42 REP will include an Anaerobic Digestion facility which will accept green and food waste. Anaerobic digestion has been recognised as one of the best methods for food recycling and will therefore help contribute towards the target of zero biodegradable or recyclable waste being sent to landfill. It will also help contribute

²¹ Gate Fees Report 2018 – Comparing the costs of alternative waste treatment options, WRAP http://www.wrap.org.uk/sites/files/wrap/WRAP%20Gate%20Fees%202018_exec+extended%20summary%20report_FINAL.pdf

towards the Mayor's 2030 municipal recycling targets and provide an 'in borough' Anaerobic Digestion solution for the London Borough of Bexley, reducing carbon intensive transport arising from current operations. Outputs from the Anaerobic Digestion facility may also be used as a fuel in the ERF to generate electricity or transferred off-site for use as a fertiliser/soil conditioner.

4.1.43 As such, both the ERF and Anaerobic Digestion facility within REP will support the waste hierarchy in London, providing for both food and green wastes and residual wastes arising in the locality, supporting the goals of NPS EN-1. Further details are provided in the **PBR (7.2, APP-103)** and the **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)**.

Need for the Proposed Development in the London Borough of Bexley

4.1.44 The Applicant notes the comments made in the WR regarding the development of further energy from waste plant in LBB.

4.1.45 The Applicant considers the location of REP to be highly suitable for this type of development, optimising the use of an existing site and the associated jetty and wider River Thames. In deciding upon the location for REP, the Applicant has had regard to factors such as those described in **Section 2.5 of NPS EN-3** which sets out factors influencing site selection in relation to 'Biomass and Waste Combustion' facilities. Furthermore, as per **Paragraph 5.2.6 of Chapter 5, Alternatives Considered of the ES (6.1, REP2-015)**, given that the Applicant owns the majority of the freehold of the REP site circa 85% (with a further 9% currently under lease), along with the proximity of associated road and jetty links with the River Thames (and associated network of riparian Waste Transfer Stations in London), the location was considered ideally suited for the Proposed Development. **Appendix A to the Statement of Reasons (4.1, REP2-008)** explains the benefits of the REP site, being:

- the Applicant's existing land ownership and ability for land assembly;
- the ability to optimise existing river transport infrastructure that is already established for waste and material delivery and export;
- the ability to optimise a location that is already in low carbon and waste management use (including the ability to share infrastructure with RRRF, thereby reducing the footprint of REP);
- the use of a brownfield site that is adequate to accommodate REP;
- proximity to the necessary electrical connection; and
- the good potential for district heating;
- the location is such that there are no significant adverse effects on the sensitive residential and environmental receptors; and
- the site is promoted in policy.

4.1.46 The Anaerobic Digestion element of REP provides a facility to effectively and efficiently manage food waste arising from both the London Borough of Bexley and the local area. National Waste Policy - 'Our Waste, Our Resources: A Strategy for England' (WRS 2018) is promoting an increase in, and potential mandatory, food waste collection. With this, plus London Policy driving a significant increase in recycling and composting rates, the Applicant sees an increasing need for infrastructure to manage food waste.

4.1.47 As such, REP will not only play a significant part in addressing London's residual waste management infrastructure shortfall but can also provide an in-borough solution for the London Borough of Bexley which currently sends its food and green waste out of the borough to be processed.

Species general

4.1.48 As stated above, the Applicant has committed to remove the Electrical Connection route option through Crossness LNR, and this has been formalised through the detailed update on the status of the Electrical Connection, as provided in the **Electrical Connection Progress Report (8.02.07, REP2-058)** comprising part of the submission for Deadline 2. This refinement is reflected in updated submissions of the **Works Plans (2.2, REP2-004)**, **Land Plans (2.1, REP2-003)**, **Access and Public Rights of Way Plans (2.3, REP2-005)**, **Book of Reference (4.3, REP2-010)**, **Statement of Reasons (4.1, REP2-008)** submitted at Deadline 2, as well as the updated **dDCO (3.1, Rev 2)** submitted at Deadline 3.

4.1.49 The area surrounding the Proposed Development currently contains numerous structures for avian predators to perch such as existing buildings, pylons, and gantries. The addition of the REP building will not provide additional perching resource for predators which are not already present in close proximity to Crossness LNR.

Barn owl

4.1.50 Construction of the Proposed Development will not result in the loss of known barn owl breeding sites. One barn owl nest box is present within the REP site although there is no evidence of current use by barn owl. As set out in **Section 11.9 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**, prior to construction the barn owl box within the REP site will be inspected by a licenced barn owl surveyor and relocated to a suitable location nearby where it will not be subject to construction disturbance. If evidence of barn owl is recorded, the box will be relocated outside of breeding season. No known barn owl nest sites will be directly affected by the construction of REP.

4.1.51 Disturbance effects to receptors within the LNR have been shown through assessments in **Section 11.9 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** to be Not Significant. In addition, barn owls are primarily a nocturnal species and so construction work which will be undertaken during daylight hours will not conflict with the time period when this species typically forages.

- 4.1.52 Construction of the Proposed Development will not result in the loss of optimal barn owl foraging habitat. Barn owls typically forage over permanent pasture, such as that present within Crossness LNR. The Open Mosaic Habitats within the REP site and the Main Construction Compound do not provide optimum habitat for foraging barn owl, and are unlikely to be used to any great extent by foraging barn owls.
- 4.1.53 Taking the above points into consideration, construction and operation of REP will not significantly effect barn owls within Crossness LNR.

Reptiles

- 4.1.54 As set out in **Appendix G.2 Reptile Survey Report 2018** of the **ES (6.3, APP-081)**, reptile surveys used in to inform the assessment of ecological effects within the ES were undertaken in line with industry best practice. The survey team was led by an experience professional ecologist who specialises in reptiles. Surveys were undertaken in accordance with the Code of Professional Conduct of the Chartered Institute of Ecology and Environmental Management (CIEEM).
- 4.1.55 The 'low' population of reptiles recorded within the survey area was assessed using criteria determined by Froglife, a British wildlife charity committed to the conservation of reptiles and amphibians. Notwithstanding the 'low' population identified, the surveys confirmed that the survey area met the criteria for a 'Key Reptile Site', a mechanism designed to promote the safeguard of important reptile sites.
- 4.1.56 Reptiles were predominantly identified within Crossness LNR, which, as discussed above, will no longer be directly affected by the Proposed Development. No reptiles were recorded within the REP site. A single common lizard and a single grass snake were recorded within the location as shown on **Figure 1.2 (Application Boundary and Assessment Areas)** of the **ES (6.2, APP-056)** indicating these areas are also used to some extent by reptiles. Measures have been set out in the **Outline Biodiversity and Landscape Mitigation Strategy (7.6, Rev 1)** submitted at Deadline 3 to ensure impacts to these species are avoided during construction.
- 4.1.57 The scope, methodology and conclusions of the assessment of potential effects from REP set out in the ES, including to reptiles, have been agreed with Natural England, as set out in Statement of Common Ground between the Applicant and Natural England (**8.01.05, REP2-051**), submitted at Deadline 2.

Townscape and Visual Impact Assessment

- 4.1.58 The WR asserts that the FoCNR's "*major objection and concern is the cumulative visual impact of this (and other approved developments) on our day to day enjoyment of the nature reserve and the impact of habitats and wildlife.*"
- 4.1.59 A townscape and visual impacts assessment (TVIA) has been prepared to accompany the DCO Application and is presented in **Chapter 9 Townscape and Visual Impact Assessment (TVIA)** of the **ES (6.1, REP2-021)**.

4.1.60 The TVIA presents the assessment of potential likely significant effects of the Proposed Development on the townscape features and character of the Application Site, and the townscape character of the study area. It also provides an assessment of potential effects on people's views and visual amenity arising from the construction, operation and decommissioning of the Proposed Development. The proposed view locations for the TVIA were discussed and agreed with stakeholders, including the London Borough of Bexley, as part of the assessment process. The TVIA considers effects from the Proposed Development alone and cumulatively with other projects and plans as detailed in **Section 4.10 of Chapter 4 ES Assessment Methodology** of the **ES (6.1, APP-041)**.

4.1.61 The TVIA has acknowledged the potential for significant impacts to the townscape character due to large scale industrial development on what is currently open land and a change in the character of views in the area. It was identified that there may be a significant effect on visual receptors at various viewpoints where the Proposed Development is visible, these effects are beneficial from some views (PRoW at South Mere, west of Erith Marshes) and adverse from others (e.g. PRoW in Crossness Nature Reserve).

4.1.62 The TVIA identified a Moderate Adverse effect from Viewpoint 7 on the edge of Crossness Conservation Area. **Paragraphs 9.10.10 to 9.10.18 of Chapter 9 TVIA** of the **ES (6.1, Rev 1, REP2-021)** presents an assessment of potential cumulative visual effects. **Paragraph 9.10.15** states:

“Committed development at 0014 (Savills bus depot, ind. & offices), 0008 (Data Centre), and 0012 (TRE Belvedere Industrial) includes large scale industrial buildings / offices of between 20 and 30 m in height. These committed developments are likely to be partially visible in this view and may detract from the richness of the composition of mixed industrial buildings and vertical elements along the riverside frontage. REP will be an additional development, larger in scale, mass, and height, giving more enclosure and restriction of views; but with a more dominant roofline of the tall stack bringing interest and a focal point to the skyline. In the context of these committed developments, the addition of the Proposed Development will result in an adverse cumulative combined visual effect which is a Minor level of significance during construction and operation and therefore Not Significant.”

4.1.63 The visual effects of the Proposed Development have been mitigated as far as practicable through the commitment to implement the design principles set out in the **Design Principles** document (**7.4, APP-105**). The design principles are secured in **Requirement 2(2) of Schedule 2** to the **dDCO (3.1, Rev 2)** submitted at Deadline 3, which ensures that the beneficial outcome from the stepped design is further enhanced by a commitment to minimise massing and locate the Main REP Building as far from Crossness LNR as reasonably practicable.

4.1.64 Furthermore, the London Borough of Bexley confirm in their **WR (REP2-080)** and Local Impact Report (**REP2-082**) there are “no significant areas of contention” in relation to potential townscape and visual effects and agree the remaining

significant effects reported in **Chapter 9 TVIA** of the **ES (6.1, REP2-021)** cannot be mitigated due to the nature and scale of the Proposed Development.

Health and Wellbeing

- 4.1.65 The Applicant notes the comments made in the WR regarding health and wellbeing and the observation regarding "*health warnings and the accepted benefits of being out in open spaces and connecting with nature*".
- 4.1.66 As part of the DCO Application, the Applicant submitted a **HIA (Appendix K.1 of the ES) (6.3, APP-094)** which considers the potential positive and negative health and well-being impacts on residential communities and other groups that may be affected during operation and construction/decommissioning of the Proposed Development.
- 4.1.67 **Paragraph 14.2.4 of Appendix K.1 HIA of the ES (6.3, APP-094)** notes that views from outdoor recreational areas such as the Crossness Nature Reserve, Thames Path, National Cycle Route 1 as well as other Public Rights of Way and accessible open spaces immediately surrounding REP are likely to change during the construction period, such that it may reduce the visual amenity and recreational quality of these areas. Due to REP being located in a built up industrial area, construction activities are not unusual for the location and therefore users are less likely to be deterred from using these recreational spaces.
- 4.1.68 It is therefore anticipated that there may be short term adverse effects on visual amenity, however given the character of the surrounding area and short term nature of construction, these impacts are unlikely to result in any significant effects to health based upon the findings of this assessment.
- 4.1.69 **Paragraph 14.2.7 of Appendix K.1 HIA of the ES (6.3, APP-094)** notes that REP will be located in an industrial area within the context of other large industrial buildings. It is likely that the upper sections of the stack and Main REP Building will be visible in the sky line. However, the lower sections will be mostly screened by existing build development in the area. Although there may be a noticeable visual change to receptors it is unlikely that this will be such that it will deter people from using nearby outdoor recreational spaces and they would experience similar views on large industrial buildings in the direction of the REP development site.
- 4.1.70 It is therefore anticipated that although REP may have a moderate significant effect on visual amenity, it is unlikely that this will be such that it will result in a significant effect on health. These effects are beneficial from some views (PRoW at South Mere, west of Erith Marshes) and adverse from others (PRoW in Crossness Nature Reserve).
- 4.1.71 The Applicant therefore considers that there is no evidence to suggest that the Proposed Development will result in any significant effects on health relating to the visual amenity and character of the site.

Cumulative impacts on wildlife

- 4.1.72 FoCNR have raised concerns about the assessment of cumulative effects with the consented Data Storage Centres (**15/02926/OUTM**) and '3 industrial units for mixed-use' (**13/00918/OUTM**), principally on breeding and foraging birds.
- 4.1.73 Other developments, including the Data Centres, that have the potential to give rise to likely significant effects on terrestrial biodiversity when considered alongside the Proposed Development are identified in **Appendix A.4, Cumulative Assessment – Matrix** of the **ES (6.3, APP-065)**. Details on the cumulative assessment methodology is set out in **Section 4.10 of Chapter 4, Assessment Methodology** of the **ES (6.1, APP-041)**.
- 4.1.74 **Paragraph 11.10.7 of Chapter 11, Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** summarises potential cumulative effects upon specific species, including breeding and foraging birds during the construction of REP. Sites 10, 15, 76, 212 and 213 are 'other developments' where potential for loss of habitat by nesting birds, reptiles and water voles has been identified. The Data Centre site is covered by an extant planning permission. This development falls within the Application Boundary of REP and will be used as a Temporary Construction Compound. As noted in **Paragraph 11.10.6 of Chapter 11, Terrestrial Biodiversity** of the **ES (6.1, Rev 1. REP2-023)**, construction work for the data centres and the other industrial units are anticipated to be covered by a Code of Construction Practice or a Biodiversity and Landscape Mitigation Strategy which would set out measures to avoid or mitigate construction impacts to breeding birds. In the light of this, along with the temporary nature of the works associated to REP in these areas, cumulative effects to breeding birds are anticipated to be Not Significant.
- 4.1.75 The conclusion of no significant cumulative effects is confirmed by Natural England, as set out in **Statement of Common Ground** between the Applicant and Natural England (**8.01.05, REP2-051**), submitted at Examination Deadline 2.
- 4.1.76 Furthermore, the loss or temporary disturbance of habitats during construction has been taken into the consideration in **Section 5 of the Outline Biodiversity and Landscape Mitigation Strategy (OBLMS) (7.6, Rev 1, submitted at Deadline 3)**. These are expanded on further within the **Biodiversity Accounting Report (8.02.09, REP2-060)** which sets out the standards required for the off-set delivery, including commitment to minimum 10% net gain in biodiversity value, as measured in Biodiversity Units through a biodiversity metric. The Applicant is working with the Environment Bank to identify options for off-setting which will be discussed and agreed with stakeholders and consultees during development of the detailed design.

Compensation/mitigation

- 4.1.77 The principles of the mitigation hierarchy have been adopted and used when developing measures to address impacts on biodiversity receptors from REP. The principles of the mitigation hierarchy are that in order of preference impacts on biodiversity should be subject to:

- Avoidance;
- Mitigation; and
- Compensation.

4.1.78 It is fully acknowledged that due to the limited area of the REP site, habitat compensation and enhancement will need to be undertaken off-site. The Applicant has commissioned the Environment Bank to assist with delivery of off-site habitat compensation and enhancement. In addition, to ensure the Proposed Development meets requirements within current planning policy in relation to delivery of biodiversity net gain, the Applicant has also committed to delivering a minimum of 10% biodiversity net gain.

4.1.79 **Requirement 4 of Schedule 2 to the dDCO (3.1, Rev 2)** submitted at Deadline 3, requires the Applicant to submit to LBB for approval a pre-commencement biodiversity and landscape mitigation strategy which must include details of mitigation measures required to protect protected habitats and species during the pre-commencement works. The strategy must also set out the value (biodiversity units) of the habitats affected by the pre-commencement works and which will subsequently be combined with other habitat losses following detailed design under **Requirement 5**.

4.1.80 **Requirement 5 of Schedule 2 to the dDCO (3.1, Rev 2)** submitted at Deadline 3, requires the Applicant to submit to LBB for approval the Biodiversity and Landscape Mitigation Strategy, which must be substantially in accordance with the **OBLMS (7.6, Rev 1)** submitted at Deadline 3, which contains the minimum 10% net gain commitment. The Biodiversity and Landscape Mitigation Strategy must contain the results of the biodiversity off-setting metric together with the value of off-setting, the nature of such off-setting and the mechanism for securing the off-setting value. The value cannot be determined until the final design of the Proposed Development, through **Requirement 2 of Schedule 2 to the dDCO**, has been approved by LBB.

4.1.81 LBB is the approving authority for both the detailed design of the Proposed Development and the Biodiversity and Landscape Mitigation Strategy and will therefore be involved in approving the compensation proposals that come forward by the Applicant on the advice of the Environment Bank.

4.2 Greenwich-Bexley Environment Alliance

Introduction

4.2.1 The respondent raises three main areas of concern with the Proposed Development. These are:

- Evidence indicates that incineration is detrimental to good health especially among children and could lead to premature deaths;
- Incineration greatly contributes to global warming; and
- The inequitable siting of incinerators and other waste disposal sites in South East London and DA17 where it will be sited adjacent to an important nature reserve and among green walks.

4.2.2 Each of these concerns are considered and addressed in turn below.

Health

4.2.3 The Applicant agrees that the issue of health is extremely important.

4.2.4 Based on the respondent's own analysis of data from a 2016 report by the British Lung Foundation (BLF), the respondent infers that the highest incidence of lung related deaths is generally within boroughs where an incinerator is sited or approximately downwind. However, the respondent admits that there may be other confounding factors, such as deprivation and traffic, and that these results may be coincidental.

4.2.5 The Applicant notes that the BLF report does not actually refer to incineration plants at all. For the five lung diseases mentioned by the respondent, the BLF suggests that the primary cause for lung cancer and chronic obstructive pulmonary disease (COPD), which account for around two-thirds of deaths from lung disease, is smoking and that the primary cause for mesothelioma is asbestos dust. This significantly undermines the respondent's attempts to link incidence of these diseases to incinerators.

4.2.6 The Applicant notes that emissions from Riverside Energy Park (REP) would be a smaller fraction of total pollutants in the area and that the potential effects of those emissions have been fully assessed as part of the DCO Application.

4.2.7 The Applicant refers the respondent to independent evidence and opinion from Public Health England (PHE), an executive agency sponsored by the UK Department of Health and Social Care.

4.2.8 PHE were consulted throughout the pre-application consultation process and submitted a Relevant Representation following the acceptance of the **Application for Examination (RR-067)**. In summary, PHE states:

- PHE is satisfied with the methodology used to undertake the environmental assessment.
- Emissions will be controlled via the Environmental Permitting regime, under the provisions of the Environmental Protection Act 1990. The permitting regime is administered by the Environment Agency (EA), separately from Nationally Significant Infrastructure Planning and PHE will be formally consulted by the EA as part of the permitting process.
- The outline **Code of Construction Practice (CoCP) (7.5, APP-106)**, includes provisions for the management, assessment and control of dust, pollution incidents, land contamination, plant and vehicle movements, impacts on water resources and waste management. The document proposes full consultation / agreement with the appropriate regulatory bodies and consequently PHE is of the opinion that these matters can be satisfactorily addressed and wishes to make no additional comments.

4.2.9 In addition, PHE's predecessor, the Health Protection Agency, issued a note in 2009 RCE-13, "*The Impact on Health of Emissions to Air from Municipal Waste Incinerators*", which concludes that "*any potential damage to the health of those living close-by is likely to be very small, if detectable. This view is based on detailed assessments of the effects of air pollutants on health and on the fact that modern and well managed municipal waste incinerators make only a very small contribution to local concentrations of air pollutants.*"

4.2.10 This advice remains PHE's position. PHE has commissioned additional research which is discussed in **Post Hearing Note on Public Health and Evidence (8.02.27)**, submitted by the Applicant at Deadline 3). The Applicant refers the respondent to that note for further detail on the health.

4.2.11 **Paragraphs 3.5.5-3.5.12 of Appendix C.3 Human Health Risk Assessment (HHRA) of the ES (6.2, REP2-040)**, consider the likely carcinogenic and non-carcinogenic effects of the emissions from REP on human health. As stated in **Paragraph 7.9.40 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**, an individual with maximum exposure is not subject to a significant carcinogenic risk or non-carcinogenic hazard, arising from exposure via both inhalation and the ingestion of foods. **Paragraph 7.9.41 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**, reports that there will be no likely significant effects on human health in relation to long term exposure to emissions from REP. As PHE state in its Relevant Representation referred to above, the emission levels will be very carefully monitored and regulated in accordance with an Environmental Permit (EP) which will be granted by the Environment Agency. Thus the emission levels underpinning this assessment (which has been undertaken on the basis of a worst case scenario) will not be exceeded.

4.2.12 Furthermore, as stated in the **Environmental Permit and Air Quality Note (8.02.06, REP2-057)**, submitted at Deadline 2, in the Environmental Permit (EP) application "*the Applicant has proposed what is understood to be the 'lowest' NOx emission limit within the EP application for any large-scale conventional ERF within*

*London or indeed the UK, being 75 mg/Nm³. This is a lower emissions limit than that assumed in the ES for the dDCO application, being 120 mg/Nm³. As reported in the **dDCO application (6.1, APP-044)**, emissions of NO_x, with an emission limit of 120 mg/Nm³, will have a 'negligible' impact at sensitive receptors. Therefore, in applying for an emission limit of 75 mg/Nm³ within the EP application, the impact will be less than predicted in the dDCO application."*

4.2.13 **Table 7.34 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** provides the maximum ground level concentrations of nitrogen, sulphur dioxide and particulates within the study area. The assessment of potential effects on human receptors from these pollutants is presented in **Paragraphs 7.9.21 – 7.9.32 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**. **Paragraph 7.13.2 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** reports the assessment findings that there would be no likely significant effects on human receptors.

4.2.14 Given the evidence set out in the DCO Application and summarised above, the Applicant does not consider that further analysis / funding into the matter is appropriate.

Global Warming

4.2.15 The Applicant disagrees with the statement by the respondent that the photographs in Appendix D of its written representation show *"the effect of global warming emanating from RRRF"*. It is noted that RRRF operates within strictly controlled limits, as set by its Environmental Permit (EP), and has received no complaints over air quality or emissions since it became operational in 2011. The plume from RRRF which is visible on the photographs shown in Appendix D of the written representation consists of condensed water vapour (steam) which can be seen from the stack under certain high pressure atmospheric conditions. A similar plume may be visible from the Energy Recovery Facility (ERF) at REP under similar atmospheric conditions once operational.

4.2.16 The Proposed Development is demonstrated, not least through the submitted **Project and its Benefits Report (PBR) (7.2, APP-103)** and subsequent **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)**, to be a national and local policy-supported supply of low carbon/renewable energy, that will help to deliver climate change priorities, including sustainable waste management, rather than directly contributing to global warming.

4.2.17 At Deadline 2, the Applicant submitted a Carbon Assessment of the Proposed Development, **Carbon Assessment (the ERF Carbon Assessment) (8.2.08, REP2-059)**. The purpose of this assessment is to compare the relative carbon impact of processing residual waste in the REP ERF compared to sending the same waste to landfill.

4.2.18 **Chapter 5, of the ERF Carbon Assessment (8.02.08, REP2-059)** concludes that the base case for the assessment shows that the benefit of the REP ERF compared to landfill is a carbon saving of 137,000 tonnes of CO₂-equivalent per year, or about

229 kg CO₂e per tonne of waste processed. This is based on the following key assumptions:

- The residual waste for the REP ERF has the same composition as the residual waste currently being supplied to RRRF;
- Electricity generated by REP (or landfill gas engines) displaces electricity generated from gas-fired power stations; and
- The landfill site in the comparison scenario is a typical large UK landfill site.

4.2.19 If heat is exported, as is the Applicant's intention, this benefit increases to 157,000 t CO₂e or 263 kg CO₂e per tonne of waste processed.

4.2.20 The assessment has considered the sensitivity to changes in waste composition, changes in landfill gas recovery rates and changes in the source of displaced electricity. In all cases, the REP ERF continues to have a benefit over landfill.

4.2.21 In the design and composition of the Proposed Development, the Applicant has sought to maximise complementary renewable energy generating capacity to supplement the low carbon energy generation from the ERF. Up to 1.2 MWe of renewable energy could be generated by the solar panels, however this will be dependent upon the final building form and the best technology available at the time of construction. In addition, the ERF will likely have a biocarbon content of over 50% (as RRRF currently does), which means that over 50% of the electricity generated by the ERF itself will be classed as renewable.

4.2.22 **A Qualitative Greenhouse Gas Emissions Assessment** accompanies the DCO Application, found at **Appendix K.2** to the **ES (6.3, APP-095)**, considers greenhouse gas emissions from the Proposed Development. **Paragraph 5.1.3 of Appendix K.2 Qualitative Greenhouse Gas Emissions Assessment** to the **ES (6.3, APP-095)**, states that the operation of REP is expected to contribute positively to the national, local and waste sector emissions through the use of recovered energy from waste, renewable energy generation and energy storage. This is supported by the **ERF Carbon Assessment (8.2.08, REP2-059)**.

4.2.23 The respondent's comment regarding the suitability of the REP site in terms of *“excellent communications and natural infrastructure from the river Thames”* is welcomed. The respondent states that *“their estate offers major opportunities to install solar panels, wind generators and tidal power”*.

4.2.24 The Applicant's intention is to use similar, but more advanced, technology to RRRF for the ERF element of the Proposed Development. This allows proven and deliverable technology to be employed along with the integrated benefits of Anaerobic Digestion, Battery Storage and Solar Photovoltaics. The scale of development required to support the proposal fits within existing established site boundaries.

- 4.2.25 The Applicant has sought to develop a project which maximises the existing site assets and energy generation potential, while minimising potential environmental effects. The solar photovoltaic element of the Proposed Development has been maximised to fit within the site layout.
- 4.2.26 It is noted that the site is not suitable for the development of wind turbines (given limited site area and proximity to other industrial users) nor tidal power as the tidal conditions at the River Thames beside the site would not produce a viable energy output.
- 4.2.27 The Applicant can confirm that the most efficient way of increasing capacity and maximising energy generation is to develop a new, complimentary ERF. It would not be as efficient to reconfigure the existing RRRF plant to increase capacity enough to meet increased demand. As demonstrated in **PBR (7.2, APP-103)**, London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be operational after 2025. REP is demonstrated to provide the residual waste treatment capacity required by the capital in order to meet self-sufficiency and zero carbon city priorities set out in policy.
- 4.2.28 The Applicant can also confirm that the timing of REP is a factor of increased demand for ERF and is linked to market conditions. The Thames Water incinerator cited by the respondent is a totally separate project and is not under the control of the Applicant. The proposals for REP therefore are not linked to the closing, or otherwise of the Thames Water incinerator.
- 4.2.29 Furthermore, REP has been designed to be CHP-Enabled and will have the ability to export heat from the start of operation. **Section 3 of the Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** presents the heat demand investigation which assesses potential off-takers for the heat produced by REP within a 10 km radius of the Proposed Development. The assessment has been undertaken in line with the Environment Agency's CHP Ready Guidance²². **Paragraph 3.2.6 of the Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** confirms that there is sufficient heat demand to accommodate both the heat produced from REP and the adjacent RRRF.
- 4.2.30 The Applicant has engaged with major local commercial and residential developers to the west of the REP site in Thamesmead which could offer the potential for REP to supply heat to a district heat network. Through this engagement, a major local developer (Peabody) has written to support the commitment to progress a district heat network (See **Appendix A of the Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**). In conjunction with partners, Peabody has identified Thamesmead as a key strategic growth area, aiming to develop 20,000 new homes over the next 30 years. The Bexley District Heating Partnership Board (of which Peabody is a member, alongside the Applicant, London Borough of

²² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/296450/LIT_7978_e06fa0.pdf

Bexley and the GLA amongst others) was established to realise the opportunity for CHP offtake. As a member of the Partnership Board, Peabody supports the Proposed Development which would contribute to the collective goal of developing a heat network in the area.

4.2.31 Compared to other comparable projects at this pre-consent stage, the Applicant has taken considerable, demonstrable steps to actively pursue opportunities for heat export (at its own cost) and has clearly identified the demand for a heat network in the area of the Proposed Development.

4.2.32 The Applicant has followed through on its commitment to support the London Borough of Bexley and has engaged with Ramboll, who was commissioned by the London Borough of Bexley to undertake a techno-economic feasibility study for a district energy network in the locality. Phase 1 of the study was published in December 2018 and a CHP strategy meeting was held on 20th February 2019 to discuss the results, verify technical and commercial assumptions adopted within the study and to discuss next steps in delivery of a heat network in the region. The meeting was attended by the Applicant, the Applicant's technical and commercial advisers and Ramboll (on behalf of the London Borough of Bexley). Ramboll's Phase 2 feasibility study recognises that the provision of supplementary heat generation and storage is required to meet year-round demand which is proposed to comprise a mix of centralised and distributed plant.

Inequitable Siting of Incinerators

4.2.33 The Applicant considers the location of REP to be highly suitable for this type of development, optimising the use of an existing site and the associated jetty and wider River Thames. In deciding upon the location for REP, the Applicant has had regard to factors such as those described in Section 2.5 of NPS EN-3 which sets out factors influencing site selection in relation to 'Biomass and Waste Combustion' facilities. Furthermore, as stated in **Paragraph 5.2.6 of Chapter 5, Alternatives Considered** of the **ES (6.1, REP2-015)**, given that the Applicant owns the majority of the freehold of the REP site (approximately 85% with a further 9% currently under lease), along with the proximity of associated road and jetty links with the River Thames (and associated network of riparian Waste Transfer Stations in London), the location is considered ideally suited for the Proposed Development.

4.2.34 **Appendix A** to the **Statement of Reasons (4.1, REP2-008)** explains the benefits of the REP site, being:

- The Applicant's existing land ownership and ability for land assembly;
- The ability to optimise existing river transport infrastructure that is already established for waste and material delivery and export;
- The ability to optimise a location that is already in low carbon and waste management use (including the ability to share infrastructure with RRRF, thereby reducing the footprint of REP);

- The use of a brownfield site that is adequate to accommodate REP;
- Proximity to the necessary electrical connection;
- The good potential for district heating;
- The location is such that there are no significant adverse effects on the sensitive residential and environmental receptors; and
- The site is promoted in policy.

4.2.35 As reported in **Paragraphs 16.2.2 and 16.2.3 of Chapter 16 Summary of Findings and In-Combination Effects** of the **ES (6.1, APP-053)**, no significant adverse residual effects are identified from the construction, operation or de-commissioning of the Proposed Development other than relating to townscape and visual effects. Such effects are to be considered as part of the wider planning balance.

4.2.36 The use of the site also accords with Policies 5.17 and 7.26 of the adopted London Plan²³ and Policies SI8, SI9, SI15 of the draft New London Plan²⁴ which encourage new development to optimise the use of existing site infrastructure. Further information is also provided in the **PBR (7.2, APP-103)** and subsequent **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)** submitted for Deadline 2.

4.2.37 Whilst the respondent's comments are noted regarding the amount of industrial development in Bexley, the Applicant selected the REP site for its specific advantages outlined above. It is noted that favourable development conditions exist in the immediate area around the REP site which include good access to the River Thames, close proximity of other supporting industrial development and the relatively isolated location, away from large residential areas. Suitable site choice is one of the main considerations for large scale industrial development and it is noted that the REP site, immediate surrounding area and sections of the Electrical Connection route form part of the Belvedere Industrial Area which is designated as a Strategic Industrial Location (SIL) and Preferred Industrial Location (PIL) (see London Plan Policy 2.17). The site is also within the Bexley Riverside Opportunity Area (see London Plan Policy 2.13) and a Heat Network Priority Area of the draft new London Plan. Being located in the Bexley Riverside Opportunity Area, the REP site meets the policy requirement to fulfil the strategic logistics role of one of London's safeguarded wharves and provide a waste management facility. Many of these benefits could not be replicated elsewhere, such as the use of existing river transport infrastructure, the sharing of facilities with the neighbouring waste facility and the proximity to the heat network demand. As demonstrated in **PBR (7.2, APP-103)**, London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be operational after 2025.

²³Adopted London Plan (2016) https://www.london.gov.uk/sites/default/files/the_london_plan_2016_jan_2017_fix.pdf

²⁴ Chapter 9 – Sustainable Infrastructure of the Draft New London Plan (August 2018) - https://www.london.gov.uk/sites/default/files/draft_london_plan_-showing_minor_suggested_changes_july_2018.pdf

REP will help London transition to a low-carbon and self-sufficient city providing an appropriate alternative to treat London's waste which remains after recycling. This provides a substantial and reliable alternative to waste being sent to landfill or shipped overseas.

- 4.2.38 The Applicant is aware of plans for further housing development in the vicinity of the REP site and agreed a list of cumulative developments as part of its scoping exercise as set out in **Appendix A.4 Cumulative Assessment - Matrix** of the **ES (6.3, APP-065)**. As presented in the air quality assessment (**Sections 7.10 and 7.13 of Chapter 7, Air Quality** of the **ES (6.1, REP2-019)**) there are not anticipated to be any likely significant effects arising from air quality as a result of the Proposed Development on existing or planned residential areas. This is demonstrated by the isopleths showing dispersion of emissions within the study area shown in **Figures 7.4 to 7.9** of the **ES (6.2, APP-056)** and the updated **Figure 7.5 (6.2, Rev 2)**, as submitted at Deadline 3).
- 4.2.39 Additionally, the **Applicant's Response to London Borough of Havering's Written Representation (8.02.14)**, submitted at Deadline 3) includes additional figures showing the dispersion profiles of emissions from REP plotted against future planned development (Riverside Opportunity Area, allocated development areas and proposed Beam Park development). The plots show that no significant effects are anticipated on any foreseeable future planned development.
- 4.2.40 The Applicant notes the respondent's comment in relation to the proximity of nearby nature reserves. This is covered in detail in the relevant representation response relating to biodiversity issues (TR-003) submitted at Deadline 2 within the **Applicant Response to Relevant Representations (8.02.03, REP2-054)**.

5 Members of the public/business

5.1 Barbara Fairbairn

Introduction

5.1.1 Barbara Fairbairn has raised six main areas of concern within her Written Representation. These relate to:

- Contribution of the Proposed Development to global warming;
- Air quality;
- Interruption of views / vistas from higher ground;
- Concerns that advertised plans (e.g. job numbers and planting) for the existing Riverside Resource Recovery Facility (RRRF) did not materialise upon construction and operation;
- Impacts on adjacent habitats; and
- Incineration of waste and discouragement of recycling.

5.1.2 The response covers each of these issues in turn below.

Global warming / Air Quality (concerns for schools, Children's Centre and planned housing)

5.1.3 A **Qualitative Greenhouse Gas Emissions Assessment** accompanies the DCO Application, found at **Appendix K.2** to the **Environmental Statement (ES) (6.3, APP-095)**. This qualitative greenhouse gas emissions assessment considers all direct greenhouse gas emissions from REP (known as Scope 1 Emissions under the Greenhouse Gas Protocol²⁵) and also greenhouse gas emissions consumed by REP during its construction and operation (known as Scope 2 Emissions under the Greenhouse Gas Protocol). The conclusion of this assessment, which has been carried out in accordance with the Institute of Environmental Management and Assessment (IEMA) guidance document "*EIA Guidance on assessing greenhouse gas emissions and significance (2017)*" at **Paragraph 5.1.3 of Appendix K.2 Qualitative Greenhouse Gas Emissions Assessment** to the **ES (6.3, APP-095)**, reports that the operation of REP is expected to contribute positively to the national, local and waste sector emissions through the use of recovered energy from waste, renewable energy generation and energy storage.

5.1.4 In addition, through **Sections 1.2, 1.3 and 1.4** of the **Project and its Benefits Report (PBR) (7.2, APP-103)** and **Section 2** of the subsequent **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)**, it is

²⁵ <http://ghgprotocol.org/about-us>

demonstrated that the Proposed Development supports national and local policy, regarding supply of low carbon/renewable energy, that will help to deliver climate change priorities, including sustainable waste management.

- 5.1.5 The Applicant submitted at Deadline 2 a **Carbon Assessment (8.02.08, REP2-059)**. The purpose of this Report is to compare the relative carbon impact of processing residual waste in the REP ERF compared to sending the same waste to landfill. The Carbon Assessment reports that the base case for the assessment shows that the benefit of the REP ERF compared to landfill is about 137,000 tonnes of CO₂-equivalent per year, or about 229 kg CO₂e per tonne of waste processed.
- 5.1.6 The Applicant has reviewed the photographs supplied by the respondent and notes that the plume shown rising from the stack at RRRF is condensed water vapour (steam) which is not a pollutant as claimed by the respondent.
- 5.1.7 In the design and composition of the Proposed Development, the Applicant has sought to maximise complementary renewable energy generating capacity as well as a market leading anaerobic digestion facility and innovative battery storage capability to supplement the low carbon/renewable energy generation from the ERF. Up to 1.0 MWe of renewable energy could be generated by the solar panels, with the final MWe output determined by the final building form and the best technology available at the time of construction. The Applicant is privately funding REP, investing in, and supporting, future technologies in the drive for a low carbon/renewable economy.
- 5.1.8 The findings of the air quality assessment are summarised in **Table 7.37 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**, which shows that there will be no likely significant residual air quality effects on human or ecological receptors as a result of construction, operation or de-commissioning of the Proposed Development, when considered either in isolation or in combination with other planned developments.
- 5.1.9 High sensitivity receptors in the vicinity of the REP site are shown in **Table 7.29 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**. This table shows that a number of schools (e.g. Receptors R6 (Brady Primary School, Rainham), R9 (George Carey CofE Primary School), R13 (Marsh Green Primary School, Dagenham) and R14 (St Peter's Primary School, Dagenham) and R22 (Rainham Children's Centre) have been included in the assessment.
- 5.1.10 In terms of potential effects on planned developments, a cumulative air quality assessment has been undertaken and is reported in **Section 7.10 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**. No likely significant cumulative effects are predicted on any of the reasonably foreseeable proposed developments.
- 5.1.11 Whilst the Applicant cannot comment on the specific instances of pollution which are raised by the respondent in Belvedere (e.g. smells, specks of black dust and withered plants), the existing RRRF facility operates strictly within emissions limits set by its Environmental Permit, particularly regarding odour and particulates such that there would be no detrimental effects to air quality in the surrounding area. It is

also noted that there have been no complaints relating to airborne pollution incidents over the operational lifetime of RRRF.

5.1.12 It is noted by the Applicant that Statements of Common Ground (SoCG) have been signed with Natural England, London Borough of Barking and Dagenham, Dartford Borough Council and the Port of London Authority, all of which agree with the Applicants assessment of air quality effects, as presented in the ES and supporting documents.

Interruption of views / vistas

5.1.13 The Applicant notes the figures supplied by the respondent and acknowledges the industrial nature of the view. However, the area around the RRRF and REP site is designated for industrial use in planning policy and, like the respondent, the Applicant recognises the ongoing industrial heritage of the area.

5.1.14 A townscape and visual impacts assessment (TVIA) accompanies the DCO Application and is presented in **Chapter 9 TVIA** of the **ES (6.1, REP2-021)**.

5.1.15 The TVIA presents the assessment of potential likely significant effects of the Proposed Development on the townscape features and character of the Application Site, and the townscape character of the study area. It also provides an assessment of potential effects on people's views and visual amenity arising from the construction, operation and decommissioning of the Proposed Development.

5.1.16 From the majority of townscape and visual receptors assessed, construction related effects would be minor or negligible and therefore not significant, as summarised in **Table 9.5** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)**.

5.1.17 Although visual effects on people's views from within Crossness LNR and the Thames Path have been assessed as being Moderate Adverse levels of significance of effect, and therefore Significant during construction, the visual effects upon these visual receptors during the construction phase would be of limited duration and would not necessarily all occur at the same time. In addition, the REP site and Main Temporary Construction Compounds are located within a diverse industrial and urban area, adjacent to existing large-scale industrial buildings, so construction activity would not be completely discordant with the character of or activities in this area.

5.1.18 **Table 9.8** in **Chapter 9 TVIA** of the **ES (6.1, REP2-021)** summarises the predicted residual effects of operation of the Proposed Development on the Thames Path and river views. The visual receptors of SA1 - East and SA1 – West represent people's views when travelling along the Thames Path as identified in **Table 9.4** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)**. Although significant adverse effects are identified (moderate levels of significance), the REP site is set within an existing industrial area with a character of industrial development based around the river. Embedded mitigation measures as described in **Section 9.8** of **Chapter 9 TVIA** of the **ES (6.1, REP2-021)** would seek to take account of adjacent land uses and existing townscape character, including the orientation of the Main REP Building to

allow for visual permeability through the REP site from Belvedere to the River Thames and the Design Principles which are secured via **Requirement 2 in Schedule 2** to the **draft Development Consent Order (dDCO) (3.1, Rev 2,** submitted at Deadline 3). The buildings and stack would be seen in the context of other industrial buildings, other existing vertical elements, such as wind turbines and other stacks, and would therefore not be viewed as out of place. Finally, as recognised by the Overarching National Policy Statement for Energy (EN-1), the scale of energy projects meant that "*they will often be visible within many miles of the site*" and that the Secretary of State "*should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project*" (paragraph 5.9.15). In addition, EN-1 recognises that all "*proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The [Secretary of State] will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project.*" (paragraph 5.9.18). It is clear in this case, that the Proposed Development's effects on the landscape and visual amenity is not "so damaging" so as to outweigh the Proposed Development's benefits.

Concerns about RRRF

- 5.1.19 The comments raised by the respondent relating to claims made prior to the construction of RRRF are noted. The commitments made in developing the existing RRRF plant were to employ local people as far as reasonably practicable and to develop appropriate planting and landscaping around the site.
- 5.1.20 In terms of local employment opportunities, RRRF employs around 80 people. Where possible these people are recruited from the local area. However, a range of specialist skills are needed for operation of a plant such as RRRF and these skills are not always available locally. The Applicant and operator of RRRF have also recently moved some of the back office operations (e.g. IT, finance and supporting roles) from central London to the RRRF site. This further increases potential employment opportunities in the local area and have associated benefits for the local economy.
- 5.1.21 The applicant also supports local schools and apprentice programmes to 'up-skill' young people in the local workforce.
- 5.1.22 RRRF incorporates landscaping and planting appropriate to its location and in accordance with RRRF's planning consents and agreed with LBB. As the Site is close to a river and a marshland setting environment, the Applicant has been encouraged to maintain openness rather than undertake the planting of large areas of trees, shrubs and tall vegetation and has instead focussed on species which complement the marshland surroundings.
- 5.1.23 If granted development consent, REP (like RRRF) would be bound by a series of requirements set out in the **dDCO (3.1, Rev 2,** submitted at Deadline 3) which would set out, amongst other things, the final design of the plant. The Applicant must accord with these requirements as a matter of law.

Impacts on adjacent habitats

- 5.1.24 A terrestrial biodiversity assessment accompanies the DCO Application and is presented in **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**.
- 5.1.25 As stated at **Paragraphs 11.12.2-11.12.4** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**, no likely residual significant effects are anticipated on terrestrial biodiversity receptors as a result of construction, operation or decommissioning of the Proposed Development, when considered either in isolation or in combination with other planned developments.

Main REP Site – potential for direct construction effects

- 5.1.26 The development footprints of the REP Site and the Main Temporary Construction Compound do not directly affect the Crossness Local Nature Reserve (LNR). **Table 1** of the **Outline Biodiversity and Landscape Mitigation Strategy (OBLMS) (7.6, Rev 1** submitted at Deadline 3) sets out measures which will be used during construction to avoid or mitigate indirect effects such as those from noise, visual disturbance, dust and pollution. The OBLMS is secured via **Requirement 5** at **Schedule 2** to the **dDCO (3.1, Rev 2**, submitted at Deadline 3), which requires that the final Biodiversity Landscape Mitigation Strategy (BLMS) submitted to and approved by the local authority, be in substantial accordance with the OBLMS.

Main REP Site – potential for indirect construction effects

- 5.1.27 Potential effects arising from traffic movements, such as noise disturbance and dust, may take place during the construction works for the Proposed Development. However, with the appropriate mitigation in place (considering issues such as timing of works and good practice construction methods), these are not anticipated to occur and are assessed as being not significant, see **Paragraph 11.9.2** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**. Furthermore, in respect of potential noise impacts on breeding birds during construction (which would include noise related to transport), **Paragraphs 11.9.10** and **11.9.11** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** confirm that construction will generally not take place at night and no night-time increases are anticipated. Whilst elevated noise levels generally may cause some displacement of breeding birds, the effect is temporary and assessed as not significant.
- 5.1.28 There is the potential for temporary effects during construction to arise from disturbance of habitats at Erith Marshes Site of Importance for Nature Conservation (SINC). Measures to avoid or mitigate potential construction effects within these areas are set out in **Table 1** of the **OBLMS (7.6, Rev 1** submitted at Deadline 3). The OBLMS also sets out how habitats within the Crossness LNR and the key species and species groups they support, such as bats, water vole and breeding birds, will be protected during the construction phase.

Electrical Connection - potential for construction effects

5.1.29 The potential effects of different Electrical Connection route options have been assessed and are reported in **Paragraphs 11.9.38 – 11.9.60, Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**. The Applicant can confirm that following further technical design work carried out by the Applicant and UK Power Networks, the Applicant is removing the Electrical Connection route option (part of route option 1A) through Crossness LNR. The removal of this route option through the Crossness LNR is confirmed in the Applicant's submission to the Examination at Deadline 2 and the updated **Land Plans (2.1, REP2-003)** and **Works Plans (2.2, REP2-004)** as well as explained in the **Electrical Connection Progress Report (8.02.07, REP2-058)** submitted into the Examination at Deadline 2. Therefore, potential effects related to the Crossness LNR reported in **Paragraphs 11.9.41 and 11.9.42 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** will not occur.

Main REP Site – Potential for operational effects

5.1.30 Potential operational effects arising from REP, such as those from emissions, have been assessed and are reported in **Paragraphs 11.9.21 – 11.9.37 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**. As reported in **Paragraph 11.9.32 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**, emissions of nitrogen from the Anaerobic Digestion Plant could affect a small area of the Crossness LNR, however habitats in this area are not of high botanical diversity and the predicted effects through nitrogen deposition have been assessed as Not Significant.

5.1.31 Potential effects on Crossness LNR arising from shading from the Main REP Building have been assessed and are reported in a **Report on Shading Effects to Crossness Local Nature Reserve (8.02.10, Rev 1, as submitted at Deadline 3)**. **Paragraph 1.1.19 in Report on Shading Effects to Crossness Local Nature Reserve (8.02.10, Rev 1, as submitted at Deadline 3)** reports that due to the location, extent and duration of shading, significant changes to habitats within the Crossness LNR and species which they support are unlikely. Furthermore **Paragraph 1.1.20 in Report on Shading Effects to Crossness Local Nature Reserve (8.02.10, Rev 1, as submitted at Deadline 3)** reports that the assessment supports the conclusion of the ES that whilst there is potential for some minor changes in the botanical assemblage in these areas as a result of shading, effects will be Not Significant. The Applicant has submitted a **Design Principles (DP) (7.4, APP-105)** document which seeks, through DP 1.04, to minimise the massing and scale of the facility as far as reasonably practicable. **Requirement 2 at Schedule 2 of the dDCO (3.1, Rev 2, submitted at Deadline 3)** requires the details of the layout, scale and external appearance of the Main REP Building to be submitted for approval by the local planning authority. **Requirement 2(2)** requires that the details to be submitted for approval must be in accordance with the design principles.

Incineration of Waste

- 5.1.32 REP supports both regional and local waste management needs. In spite of the welcome improvements made in the prevention, re-use and recycling of waste within London, over two million tonnes of non-recyclable waste is currently sent to landfill or shipped overseas. As demonstrated in the **PBR (7.2, APP-103)** and in the **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)**, London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be operational after 2025. REP will help London transition to a low-carbon and self-sufficient city providing an appropriate alternative to treat London's waste which remains after recycling. This provides a substantial and reliable alternative to waste being sent to landfill or shipped overseas.
- 5.1.33 The ERF component of REP will not prevent recycling or hinder local recycling rates. Data gathered by WRAP and published in Table 1 in its Gate Fee Report 2018²⁶ clearly shows that the median gate fees at material recycling facilities and organic waste treatment facilities (e.g. anaerobic digestion facilities), which are preferred in the waste hierarchy, are significantly lower than gate fees at energy from waste plant and landfill facilities. To note, the median gate fees for recycling facilities and organic waste treatment facilities are also consistently lower than energy recovery or disposal each year. Waste management follows the most cost-effective solution, therefore the ERF component at REP will not hinder progress in that regard. Furthermore, WRAP's Gate Fee Report 2018 also shows that the median anaerobic digestion gate fee for England continues to decline. Therefore, REP will support the drive to move waste further up the waste hierarchy by preventing residual waste going to landfill and work alongside the Mayor's recycling targets and policy aspirations.
- 5.1.34 REP will include an Anaerobic Digestion facility which will accept green and food waste. Anaerobic digestion has been recognised as one of the best methods for food recycling and will therefore help contribute towards the target of zero biodegradable or recyclable waste being sent to landfill. It will also help contribute towards the Mayor's 2030 municipal recycling targets and provide an 'in borough' Anaerobic Digestion solution for the London Borough of Bexley, reducing carbon intensive transport arising from current operations. Outputs from the Anaerobic Digestion facility may also be used as a fuel in the ERF to generate electricity or transferred off-site for use as a fertiliser/soil conditioner.
- 5.1.35 As such, both the ERF and Anaerobic Digestion facility within REP will support the waste hierarchy in London, providing for both food and green wastes and residual wastes arising in the locality, supporting the goals of NPS EN-1 alongside the Mayor's recycling targets and policy aspirations. Further details are also provided in the **PBR (7.2, APP-103)** and the **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)**.

²⁶ Gate Fees Report 2018 – Comparing the costs of alternative waste treatment options, WRAP http://www.wrap.org.uk/sites/files/wrap/WRAP%20Gate%20Fees%202018_exec+extended%20summary%20report_FINAL.pdf

5.2 Dave Putson Councillor Belvedere Ward (Labour)

Introduction

- 5.2.1 Dave Putson, Labour Councillor for Belvedere Ward, raises a number of concerns with the Proposed Development, which he originally raised in May 2018 in response to the pre-application consultation, and which he claims have not been answered by the Applicant. His Written Representation includes the comments/questions previously raised.
- 5.2.2 His main areas of concern cover the following:
- Air Quality and Ultra Fine Particles;
 - Consequences for waste transportation in the event of a jetty outage, and subsequent implications to local residents;
 - Health effects;
 - Recycling rates;
 - Comparison of cost of waste when landfilled or thermally treated;
 - Responsibilities imposed by London Borough of Bexley (LBB);
 - River traffic;
 - Operational water usage;
 - Impacts from construction of the Electrical Connection; and
 - Effects to Crossness Nature Reserve.
- 5.2.3 Councillor Putson also raises matters in relation to the carbon footprint of the plant (low carbon/carbon negative/carbon neutral), affordable heating, and the London Assembly Environment Committee 'Waste: Energy from Waste' report (February 2018).
- 5.2.4 Each of the above matters are responded to by the Applicant in turn below. As the respondent has provided several elements to his representation, the Applicant's response is set out as follows:
- **Table 1** provides the Applicant's response to the 9 bullet points set out in Councillor Putson's May 2018 Consultation Response;
 - **Table 2** provides the Applicant's updated responses to questions 1 to 27 set out in Councillor Putson's May 2018 Consultation Response;

- **Table 3** provides the Applicant's response to the key findings of the London Assembly Environment Committee 'Waste: Energy from waste' report (February 2018) set out in Councillor Putson's Written Representation;
- **Table 4** provides the Applicant's response to further comments raised in Councillor Putson's Written Representation relating to air quality and ultra-fine particles, biodiversity and the use of the phrases 'low carbon, carbon neutral and carbon negative'.

Response

- 5.2.5 The Written Representation submitted in May 2019 notes that a previous submission in May 2018 containing a number of discreet questions does not appear to have been responded to.
- 5.2.6 The Applicant notes that these questions were indeed responded to in full within **Table 2 of Appendix J.1 to the Consultation Report (5.1, APP-030)** submitted as part of the DCO Application.
- 5.2.7 However, as the Proposed Development and DCO process has moved on since then, the Applicant has therefore provided updated responses to these questions below in **Table 2**.
- 5.2.8 The email Written Representation of May 2019 notes two further questions in addition to the previously submitted list of questions, namely the use of the phrases 'Low Carbon, Carbon Neutral and Carbon Negative' during public consultation events, and Ultra Fine Particulates.
- 5.2.9 The **Applicant's Response to Relevant Representations (8.02.03, REP2-054)** submitted at Deadline 2, responds to whether REP is renewable or low carbon (See response to question **TR-025 (Carbon)** on page 83 of that document). The ERF element of REP is classed as both renewable and low carbon, on the basis that the carbon emissions from the ERF will be lower than energy generation from conventional power sources and indeed lower than sending waste to landfill. Over 50% of the residual waste will be renewable and there is no restriction in the NPS that it has to be 100% renewable. The biocarbon content of the residual waste will be over 50% and therefore the ERF itself is over 50% renewable. REP also includes other renewable sources of energy generation in the form of solar panels and battery storage.
- 5.2.10 **Chapter 7 Air Quality** of the **Environmental Statement (ES) (6.1, REP2-019)** assesses the air quality effects from Ultra Fine Particulates (PM_{2.5}). **Paragraph 7.9.23 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** reports that the total concentrations of operational particulate emissions are well below the relevant objective and impacts are negligible which are Not Significant. The Applicant has provided further information regarding ultra-fine particulates from ERFs in the '**Post Hearing Note on Public Health and Evidence**' submitted at Deadline 3 (**8.02.27**).

5.2.11 Before the list of questions repeated from Councillor Putson's May 2018 response, the respondent raises 9 bullet points which are responded to in turn in **Table 5.1** below.

Table 5.1 – Responses to bullet points raised by Counsellor Putson

Summary of respondent's bullet points	Applicant's Response
<p>A low carbon energy park. There is no assertion of carbon negative or carbon neutral provision.</p>	<p>A Carbon Assessment has been prepared and submitted as part of Deadline 2 (8.02.08, REP2-059). Section 5 of the assessment reports that the benefit of the REP ERF compared to landfill is about 137,000 tonnes of CO2 equivalent per year, or about 229 km CO2 per tonne of waste processed. If heat is exported, this benefit increases to 157,000 t CO2e or 263 kg CO2 per tonne of waste processed.</p> <p>In addition, the ERF will meet the London Plan Carbon Intensity Floor policy of 400 grams of carbon dioxide equivalent generated per kilowatt hour of electricity generated. This is in power only mode. When heat is exported, the ERF is well below the Carbon Intensity Floor (Section 4 of the Combined Heat and Power Supplementary Report (5.4.1, REP2-012)).</p>
<p>A "Black Bin" waste usage providing green energy during peak usage. This is purported to offer cheap heating to local housing. Although quite how that will be provided or what constitutes cheap heating is not clarified.</p>	<p>The Applicant has considered the opportunities for heat connection specifically for REP within the Combined Heat and Power (CHP) Assessment (5.4, APP 035) and the Combined Heat and Power Supplementary Report submitted at Deadline 2 (5.4.1, REP2-059).</p> <p>The Applicant has engaged with major local commercial developers to the west of the REP site in Thamesmead which could offer the potential for REP to supply heat to a district heat network. Through this engagement, a key local developer (Peabody) has written to support the commitment to progress a district heat network (See Appendix A of the Combined Heat and Power Supplementary Report (5.4.1, REP2-012)). In conjunction with partners, Peabody have identified Thamesmead as a key strategic growth area, aiming to develop 20,000 new homes over the next 30 years. The Bexley District Heating Partnership Board (of which Peabody is a member) was established to realise the opportunity for CHP offtake. As a member of the Partnership Board, Peabody support the Proposed Development which would</p>

Summary of respondent's bullet points	Applicant's Response
	<p>contribute to the collective goal of developing a heat network in the area.</p> <p>The economic assessment presented in Section 7 of the CHP Assessment (5.4, APP-035) has been conducted in accordance with the Environment Agency's guidance and toolset, provided as a means to ensure compliance with Article 14 of the Energy Efficiency Directive.</p> <p>The presented costs have been developed in collaboration with the preferred construction contractor for the project, and benchmarked against market comparators. These figures represent the full costs for the design, engineering and construction of a district heating network to the scale proposed, accounting for heat recovery equipment and ancillaries, pipe routing, insulation, civil works and all associated costs. This approach is required to understand what level of heat price and subsidy (if relevant) would be required to establish an economically viable scheme.</p>
<p>It is asserted that the site would generate 96 Megawatts of low carbon renewable electricity at peak times. It does not say what provision is made for off peak time, it is therefore to be presumed that the battery storage referenced would be how this is addressed.</p>	<p>The Combined Heat and Power Assessment (5.4, APP-035) provided as part of the Application includes details of the electricity generation anticipated through REP.</p> <p>All elements of the Proposed Development together would give an estimated output of 96MW. However, depending on the final calorific value of fuel and efficiencies, this could be greater.</p>
<p>72 megawatts of electricity to power circa 300,000 homes</p>	<p>The consultation material presented at the May 2018 event stated REP would provide electricity for C. 140,0000 homes (https://riversideenergypark.com/consultation/materials).</p>

Summary of respondent's bullet points	Applicant's Response
<p>To take an additional 650,000 tonnes of residual waste away from landfill. Saving an alleged 130,000 tonnes of CO2 per year. The residual waste is an additional amount to that already being processed by the current Cory site. The CO2 savings are not fully explained other than the three elements of river transportation rather than truck, no landfill usage and the recycling of the ash to provide for breeze block production.</p>	<p>See comment above referring to the Carbon Assessment, submitted as part of Deadline 2 (8.02.08, REP2-059).</p>
<p>It is stated there is a potential for 30 Megawatts of affordable heat to local housing. However, the definition of affordable and to whom is not extrapolated.</p>	<p>As set out in the CHP Assessment (5.4, APP-035) and the Combined Heat and Power Supplementary Report (5.4.1, REP2-012). The London Plan and draft London Plan recognises that district heating systems have the potential to provide economical heat to houses and businesses. Without projects such as REP, there would be no source of heat to fulfil this potential and objective.</p> <p>The Bexley District Heating Partnership Board (of which Peabody is a member, alongside CRE, LBB and the GLA amongst others) was established to realise the opportunity for CHP offtake. As a member of the Partnership Board, Peabody supports the Proposed Development which would contribute to the collective goal of developing a heat network in the area.</p>
<p>It is stated that there will be 175,000 tonnes of building material for home construction.</p>	<p>The ERF element of REP will produce both incinerator bottom ash (IBA) and air pollution control residue (APCR). Both of which will be recycled for use in the construction industry. More detail is provided in the Operational Waste Statement</p>

Summary of respondent's bullet points	Applicant's Response
	(Appendix K.4 of the ES) (6.3, APP-097).
It is anticipated that there will be 6000 plus construction workers used over the course of the projected build.	Paragraph 14.9.3 of Chapter 14 Socio-economics of the ES (6.1, REP2-029) reports that construction activity at the REP site is expected to support approximately 837 temporary construction jobs on an average monthly basis.
The aim is to create 100 full time local jobs including some (not specified) apprenticeships.	Paragraph 14.9.12 of Chapter 14 Socio-economics of the ES (6.1, REP2-029) reports that the Proposed Development is expected to require 75 full time equivalent workers. This is considered to be the minimum required for safe and efficient operation of the Proposed Development, and does not include any existing employees of the RRRF who may undertake shared service duties for both facilities. Requirement 18 of the draft Development Consent Order (dDCO) (3.1, Rev 2, submitted at Deadline 3) requires the Applicant to submit an Employment and Skills Plan to the relevant planning authority for approval.

Table 5.2 – Updated Responses to concerns raised by Councillor Dave Putson in May 2018

Summary of respondent's question (Councillor David Putson)	Applicant's Response
<p>1. With the waste coming by boat / barge what happens to waste transportation if the boat service or jetty has an issue or failure ?</p>	<p>As a river-only logistics organisation, and having invested heavily in river-based infrastructure at RRRF, the Applicant is also subject to a strong commercial imperative to maximise use of river transport.</p> <p>Cory has been bringing waste into its existing RRRF facility without any service interruption since 2011. The risk of any service disruption on the river is in general less than that of the road. However, to demonstrate the assessment of a reasonable worst case, a traffic and transport assessment has been undertaken in Chapter 6 Transport of the ES (6.1, REP2-017) as well as the Transport Assessment (Appendix B.1 of the ES, (6.3, APP-066 with Appendix J and Appendix L revised at Deadline 2 , REP2-034 and REP2-064)), to assess a scenario where 100% of deliveries were made to the REP site by road, in the event of a jetty outage. No likely residual effects have been identified for this reasonable worst case scenario.</p> <p>Additionally, the updated dDCO (3.1, Rev 2, submitted at Deadline 3) includes a requirement, Requirement 14 in Schedule 2, which restricts the number of two-way vehicle movements made by heavy commercial vehicles delivering waste to the ERF and the Anaerobic Digester Digestion plant during the operational period to a maximum of 90 vehicles in and 90 vehicles out per day, save in circumstances where there is a jetty outage.</p>
<p>2. What are the contingency plans?</p>	<p>The Environmental Permit will contain a series of management procedures and protocols should an unforeseen event occur. The impacts from major accidents hazards are not expected to be significant taking into account the controls in the Environmental Permit and as such a standalone assessment of major accident hazards was scoped out of the ES. However, issues relating to major accidents and disasters are considered within Appendix K.6 - Risk of Major Accidents and</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<p>Disasters of the ES (6.3, APP-099)).</p> <p>Additionally, the risks of fire and explosion are clearly explained in Theme Reference TR-018 – Safety within the Applicant's responses to Relevant Representations (8.02.03, REP2-054) submitted at Deadline 2.</p>
<p>3. How will this impact the local residents?</p>	<p>There will be significant benefits for the local community through Cory's investment. The Applicant has prepared a Project and its Benefits Report (PBR) (7.2, APP-103) to accompany the DCO Application. The PBR explains how REP will deliver the demonstrated need for major energy generating infrastructure, provide investment in sustainable waste management and a range of societal benefits. A Supplementary Report to the PBR was submitted at Deadline 2 (7.2.1, REP2-045).</p> <p>The ES presents the findings of the EIA, a summary is included in Chapter 16 Summary of Findings and In-Combination Effects (6.1, APP-053) and the Non-Technical Summary (NTS) (6.4, APP-100).</p>
<p>4. With the previous Cory proposal now in situ there were local concerns regarding the release of waste in the form of particulates, soot and dioxins. What health impact assessment has been proposed or considered for these latest proposals?</p>	<p>A Human Health Risk Assessment (HHRA) accompanies the air quality assessment and is presented in Appendix C.3 of the ES (6.3, REP2-040). The potential impact on human health from the operational emissions of REP have also been summarised at Paragraph 7.9.41 of Chapter 7 Air Quality of the ES (6.1, REP2-019) and no significant effects are anticipated. Furthermore, a Health Impact Assessment (HIA) (Appendix K.1 of the ES, 6.3, APP-094) has been undertaken and concludes that effects on health outcomes from the Proposed Development will not be significant.</p>
<p>5. Are there any health enquiries being undertaken ?</p>	<p>In addition, further details on Human Health can be found in the Post Hearing Note</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<p>on Public Health and Evidence (8.0.27) (submitted at Deadline 3).</p> <p>Public Health England (PHE) has been consulted as part of the pre-application consultation (between 18 June and 30 July 2018) and on the submitted application (between 3 January and 12 February 2019), PHE responded confirming they are <i>“satisfied with the methodology used to undertake the environmental assessment”</i>.</p>
<p>6. Has there been any increase in detrimental health outcomes since the current plant was built and is there any prospect for further concerns with the new proposals ?</p>	<p>There have been no reported detrimental health outcomes linked to RRRF and the Applicant can confirm that there have been no complaints received for the RRRF since it opened in 2011.</p> <p>As per our responses to questions 4 and 5 above, there are no concerns over health with the Proposed Development.</p>
<p>7. The Cory site currently operating was subject to Public Enquiries in 2003 and 2005. Have the lessons been learnt from these and will the local residents be more fully engaged with and their concerns properly and fully addressed ?</p>	<p>The Applicant carried out non-statutory consultation during May 2018 in advance of the commencement of the statutory consultation period. This allowed the Applicant to introduce the Proposed Development to the public, share the Applicant's initial plans with people living in the vicinity of the Application Site, and gather initial feedback on the Proposed Development. Appendix J.1 of the Consultation Report (5.1, APP-030) summarises the feedback from, and the Applicant's response to, the non-statutory consultation.</p> <p>During the non-statutory consultation the key themes which arose from the general public were:</p> <ul style="list-style-type: none"> ■ Potential impacts on ecology and local environment; ■ Additional road movements; ■ Air quality;

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<ul style="list-style-type: none"> ■ Potential waste odour; and ■ Construction impacts for the electrical connection. <p>The Applicant therefore sought to include additional information regarding these topic areas in the information presented at the statutory public exhibitions, as shown on the July 2018 Consultation Panels (see Appendix I.4 of the Consultation Report (5.1, APP-029)) and to ensure these matters were adequately addressed in the PEIR published at the time of the statutory consultation.</p> <p>The Applicant made available information shown at the statutory consultation public exhibitions regarding the Proposed Development from 9th May 2018 – 29th May 2018 on the project website (https://riversideenergypark.com/consultation/materials).</p>
<p>8. In 2012 on opening the Belvedere Energy Waste Plant there were substantial falls in re cycling rates in Lambeth, Wandsworth, Hammersmith and Fulham, Kensington and Chelsea provided to the Western Riverside Waste Authority. As had the rates for the Sutton waste recycling site servicing Croydon, Kingston Upon Thames, Merton and Sutton. What are the comparator sustainable recycling rates volumes between 2012 and 2018 ?</p>	<p>As demonstrated in PBR (7.2, APP-103), there is an identified need for approximately 2 million tonnes of residual waste management capacity across the waste planning authorities adjacent to London. Therefore, the Energy Recovery Facility (ERF) element of Riverside Energy Park (REP) will be a suitable and reliable alternative to help treat London and the South East's waste which remains after recycling, helping to ensure that less waste is sent to landfill or shipped overseas, as well as to help support Policy 7.26 of the adopted London Plan, Policy SI9 and SI15 of the Draft London Plan and Policy CS15 of LBB's Core Strategy through the use of the River Thames. London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be operational after 2025. REP will help London transition to a low-carbon and self-sufficient city providing an appropriate alternative to treat London's waste which remains after recycling. This provides a substantial and reliable alternative to waste being sent to</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<p>landfill or shipped overseas.</p> <p>The ERF component of REP will not prevent recycling or hinder local recycling rates. REP will support, and is in compliance with, the waste hierarchy principles and makes best use of the residual waste arising in London and the South East.</p> <p>Despite improvements in the prevention, re use and recycling of waste, there will remain residual waste which should be diverted from landfill in accordance with the waste hierarchy. REP will provide a suitable alternative to help treat London's residual waste remaining after recyclable waste has been treated, helping to ensure that less waste is sent to landfill or shipped overseas.</p> <p>An Environmental Permit (EP) application has been submitted to the Environment Agency and is being determined in parallel with the DCO Application. REP will be required to operate within the restrictions imposed by the EP once granted; this includes restrictions on the type and category of waste which can be received for the ERF which will ensure residual waste, and not waste that could otherwise be recycled will be brought to the facility.</p> <p>Waste producers are incentivised financially to minimise waste management costs where they can. Work undertaken by WRAP (WRAP Gate Fees Report, 2018 http://www.wrap.org.uk/sites/files/wrap/WRAP%20Gate%20Fees%202018_exec+extended%20summary%20report_FINAL.pdf) shows that the gate fees for recycling are consistently less than gate fees for energy recovery or disposal. Accordingly, the ERF will not displace recycling.</p> <p>The ERF will support the drive to move waste further up the waste hierarchy and</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	work alongside the Mayor's recycling targets and policy aspirations.
<p>9. What are the costs of household waste when landfilled compared to incineration ? These comparators should include consideration for re cycled, co mingled and re cycled from segregated collections?</p>	<p>This Application does not provide information on specific costs of varying waste management techniques.</p> <p>Data gathered by WRAP and published in Table 1 in its Gate Fee Report 2018 clearly shows that the median gate fees at material recycling facilities and organic waste treatment facilities (e.g. anaerobic digestion facilities), which are preferred in the waste hierarchy, are significantly lower than gate fees at energy from waste plant and landfill facilities. To note, the median gate fees for recycling facilities and organic waste treatment facilities are also consistently lower than energy recovery or disposal each year.</p> <p>Waste management follows the most cost effective solution, therefore the ERF component at REP will not hinder progress in that regard. Furthermore, WRAP's Gate Fee Report 2018 also shows that the median anaerobic digestion gate fee for England continues to decline. Therefore, REP will support the drive to move waste further up the waste hierarchy by preventing residual waste going to landfill and work alongside the Mayor's recycling targets and policy aspirations.</p>
<p>10. What is the process undertaken to ensure good air quality is achieved in the surrounding residential and industrial areas?</p>	<p>A detailed assessment of potential air quality effects from the Proposed Development has been undertaken and is presented in Chapter 7 Air Quality of the ES (6.1, Rev 1, REP2-019). The assessment includes detailed modelling of anticipated emissions from REP alongside existing background concentrations, weather conditions, topography and emissions from other potential sources. The results of the modelling are then compared to legislative limits for pollutants at a series of receptors in the area, including residential and commercial. The assessment of REP concludes that</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<p>there would be no likely significant air quality effects from the operational phase of REP. Furthermore, the operation of REP will be subject to stringent emissions limits set by an Environmental Permit granted by the Environment Agency. The Environmental Permit and Air Quality Note (8.02.06, REP2-057) submitted at Deadline 2 confirms the Applicant's intention to use Selective Catalytic Reduction (SCR) technology which would further reduce NOx levels from the levels reported in Chapter 7 Air Quality the ES (6.1, REP2-019).</p> <p>In addition, an Outline Code of Construction Practice (CoCP) (7.5, Rev 2, submitted at Deadline 3) has also been submitted with the DCO application which includes measures to control the impacts air quality during construction.</p>
<p>11. In 2015 the European Union Commission estimated that their Clean Air package would save £31- £110 billion and prevent 58,000 premature deaths from Air pollution by 2030. Will the Cory development be applying these processes to its site (due to be complete currently in 2024) or will Brexit have a detrimental impact on such considerations?</p>	<p>This Application is being submitted and determined under the current legislative regime. The future position post Brexit is unknown.</p>
<p>12. The EU Circular Economy package would have created 580,000 jobs at an alleged saving of £475 billion. Has this been abandoned under Brexit ?</p>	

Summary of respondent's question (Councillor David Putson)	Applicant's Response
<p>13. What is the cost of poor air quality ?</p> <p>14. What are the health implications of poor air quality ?</p> <p>15. How many premature deaths occur as a consequence of poor air quality ?</p> <p>16. How many vulnerable groups would be detrimentally impacted by poor air quality ?</p> <p>17. What responsibilities has LBB imposed upon this project regarding Air Quality ?</p> <p>19. Would Belvedere, Thamesmead, Erith, Slade Green and Barkingside qualify post construction as ULEZ (Ultra Low Emission Zones) having this industrial activity in its immediate vicinity ?</p>	<p>Poor air quality in London is known to be primarily associated with emissions from vehicular traffic and air quality is worst alongside busy roads (https://www.londonair.org.uk/LondonAir/guide/BusyRoad.aspx). We have assessed the air quality effects during construction, operation and decommissioning of REP at appropriate roadside locations, and the effects are presented in Chapter 7 Air Quality of the ES (6.1, REP2-019) for impacts on human health and terrestrial biodiversity.</p> <p>The effects of all relevant pollutants have been assessed, from all relevant sources; the assessment has taken into account emissions from REP as well as existing sources of pollution in the area (RRRF and Crossness Sewage Treatment Works) along with emissions from road and river traffic. Where applicable, the impacts of the development have been assessed against values set out in the Air Quality Strategy. Impacts at human health receptors are considered not significant for all pollutants. The impacts to terrestrial habitats are also considered Not Significant.</p> <p>A Human Health Risk Assessment (HHRA) accompanies the air quality assessment and is presented in Appendix C.3 of the ES (6.3, REP2-040). The potential impact on human health from the operational emissions of REP have also been summarised at Paragraph 7.9.41 of Chapter 7 Air Quality of the ES (6.1, Rev 1, REP2-019) and no significant effects are anticipated.</p> <p>Furthermore, a Health Impact Assessment (Appendix K.1 of the ES) (6.3, APP-094) has been undertaken and concludes that effects on health outcomes from the Proposed Development will not be significant.</p> <p>In addition, further details on Human Health can be found in the Applicant's Post</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<p>Hearing Note on Public Health and Evidence (8.02.27) submitted at Deadline 3</p> <p>The Applicant has been consulting with the appropriate authorities throughout the DCO process and continues to do so, including on matters surrounding air quality.</p> <p>It is noted by the Applicant that Statements of Common Ground (SoCG) have been signed with Natural England, London Borough of Barking and Dagenham, Dartford Borough Council and the Port of London Authority, all of which agree with the Applicants assessment of air quality effects, as presented in the ES and supporting documents.</p> <p>Furthermore, PHE has been consulted as part of the pre-application consultation and on the submitted application in January 2019, PHE responded confirming they are <i>“satisfied with the methodology used to undertake the environmental assessment”</i>.</p>
<p>18. What responsibilities has LBB imposed upon this project regarding the: sustainability issue</p> <ul style="list-style-type: none"> ■ Energy provision (referencing Hi and Lo peak supply) ■ Health monitoring? ■ Recycling? ■ Dioxin exhaust 	<p>The Applicant has consulted with LBB throughout the process and continues to do so. LBB has submitted its own Written Representation and Local Impact Report, and the Applicant is engaging with LBB in respect of those documents, with a view to reaching agreement, including any required amendments to the draft Development Consent Order.</p> <p>By generating electricity from domestic and commercial residual waste, after recycling, the Applicant aims to improve resource efficiency, avoiding waste to landfill, and achieving greater sustainability as part of London’s circular economy. More information about the heat and electricity production of the facility is provided in the Combined Heat and Power (CHP) Assessment (5.4, APP-035) and CHP Supplementary Report (5.4.1, REP2-012)</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<p>The Human Health Risk Assessment Appendix C.3 of the ES (6.3, REP2-040) has assessed the long term accumulation of dioxins and concludes that there will be no significant effects in relation to long term exposure to dioxins and metals and therefore health monitoring is not considered necessary, or justified.</p> <p>As demonstrated in PBR (7.2, APP-103), there is an identified need for approximately 2 million tonnes of residual waste management capacity across the waste planning authorities adjacent to London. Therefore, the Energy Recovery Facility (ERF) element of Riverside Energy Park (REP) will be a suitable and reliable alternative to help treat London and the South East's waste which remains after recycling, helping to ensure that less waste is sent to landfill or shipped overseas.</p> <p>The Anaerobic Digestion element of REP provides a facility to effectively and efficiently manage food waste arising from both the London Borough of Bexley and the local area. National Waste Policy - 'Our Waste, Our Resources: A Strategy for England' (WRS 2018) promotes an increase in, and potential mandatory, food waste collection. With this, together with London Policy driving a significant increase in recycling and composting rates, the Applicant sees an increasing opportunity for infrastructure to manage food waste.</p>
<p>20. Where are all the data sets derived from as shown on the Cory website?</p>	<p>The Applicant is unclear which data set the response is referring to, however the majority of information on www.coryenergy.com related to the Carbon Report available at https://www.coryenergy.com/wp-content/uploads/2018/01/Cory-Carbon-Report-v1.1.pdf.</p>
<p>21. How accurate is it to assert that 1,000,000 tonnes of waste as proposed to be transported by river barge saves 100,000</p>	<p>A full traffic and transport assessment has been undertaken for the two operational scenarios (the 'nominal' scenario (75% by river, 25% by road) and the '100% by road' reasonable worst case scenario in the event of a jetty outage) representing possible</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
lorry journeys?	<p>operational methods at REP. These are presented and appraised in Chapter 6 Transport of the ES (6.1, REP2-017), as well as the Transport Assessment (Appendix B.1 of the ES, 6.3, APP-066 with Appendix J and Appendix L revised at Deadline 2, REP2-034). These assessments describe impacts on the strategic road network, within the agreed area of the TA scope, during the construction and operation of the Proposed Development. No likely residual significant effects are identified in either scenario.</p> <p>Furthermore, the Applicant has included at Requirement 14 of the dDCO (3.1, Rev 2, submitted at Deadline 3) a restriction on the number of vehicle movements to and from the ERF and the Anaerobic Digestion plant during operation, thereby ensuring a large proportion of waste is transported to the ERF and Anaerobic Digester via the River Thames.</p> <p>The scope of the transport assessment and reports were agreed with the Local Planning Authorities; Local Highway Authorities and Highways England.</p>
22. How can / could members of the public monitor / review the correct application of environmental permits ?	<p>The Environment Agency is the regulatory body for the Environmental Permit. The Applicant and the Environment Agency publish all their emission and compliance data on their respective websites.</p>
23. What evidence is there to support the assertion by Cory of “No waste “ by 2030 ?	<p>As stated in the PBR (7.2, APP-103):</p> <p><i>‘Issues associated with the exportation of waste to landfill and RDF overseas support the need for waste management self-sufficiency. To manage waste sustainably, draft London Plan policy S18 states:</i></p> <p><i>“the equivalent of 100 per cent of London’s waste should be managed within London</i></p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<p><i>(i.e. net self-sufficiency) by 2026”</i></p> <p><i>To promote increased recycling, draft London Plan policy S17 opens with reference to the circular economy and a desire to ‘keep products and materials at their highest use for as long as possible’. Policy S17A/3 seeks to ensure ‘that there is zero biodegradable or recyclable waste sent to landfill by 2026’, whilst policy S17A/4 sets the recycling targets to be achieved, identifying 65% for municipal waste by 2030.</i></p> <p><i>In comparison to other major European cities, London performs well with regards to recycling rates (see Figure 4). A further increase in recycling rates to achieve the 65% target presents numerous difficulties, especially considering the inherent recycling challenges specific to London, including housing density and types of homes (e.g. flats), dependence on householder segregation of waste and local authority priorities and availability of scarce public resources. The LES acknowledges the very real challenges in achieving the targets, not least the absence of any direct means of delivery and a lack of funding.’</i></p>
<p>24 (although numbered 23 in the rep). What is the projected increased waste tonnage to be processed year on year ?</p>	<p>It is anticipated that the Energy Recovery Facility element of REP would treat approximately 655,000 tonnes of residual (non recyclable) waste per annum (based on the current calorific value of waste processed by RRRF). However, for the environmental assessments a ‘reasonable worst case’ maximum throughput of approximately 805,920 tonnes per annum has been assessed (which is based on a lower calorific value and assumes no outages during the year). The expected throughput of the Anaerobic Digestion facility is 40,000 tpa.</p>
<p>25 (although numbered 24 in the rep). Is the river traffic sufficiently low volume that such increased volume tonnage could still be</p>	<p>The Navigational Risk Assessment (Appendix B.2 of the ES) (6.3, APP-067) has assessed a scenario where 100% of the waste is transported by river. It concludes that the Proposed Development would have negligible impact upon navigational</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
transported in this manner?	safety on the River Thames. Paragraphs 5.16.19 to 5.16.13 of the Applicant's Planning Statement (7.1, APP-102) identifies the policy support for use of the River Thames, including through the London Plan and Draft London Plan. A Statement of Common Ground (SoCG) has been agreed with the Port of London Authority which agrees the conclusions of the assessment. A final SoCG has been signed by both parties and was submitted on Friday 31 May 2019.
26 (although numbered 25 in the rep).. The South East of UK is now becoming the most arid area of Europe, what will the water usage be of this plant be year on year?	Chapter 12 Hydrology, Flood Risk and Water Resources of the ES (6.1, REP2-025) provides an assessment of the potential effects on water resources and concludes that no likely significant effects are expected from the Proposed Development. This assessment has also considered water usage of the facility.
27 (although numbered 26 in the rep).. The local planning for the cabling from this plant to the proposed Littlebrook substation in Dartford would require between 10 and 13 kilometres of road works dependent upon routes determined as optimal. How long would such impacts take to complete bearing in mind that Bexley has had to endure travel disruptions because of both London Bridge train station upgrades and Crossrail over several years. This now offers traffic disruptions of similar magnitude?	<p>The Applicant has been engaged in ongoing consultation with UK Power Networks (UKPN) throughout the application stage of the Proposed Development. UKPN have undertaken extensive works to establish the most suitable grid connection route between the site and the Littlebrook substation and have developed a viable and deliverable option. The most up to date information on the Electrical Connection route is described in the Electrical Connection Progress Report (8.02.07, REP2-058) – submitted at Deadline 2.</p> <p>Since the submission of the DCO Application, the route options for the Electrical Connection have been refined to a single route. The Electrical Connection route follows Norman Road, continuing along what was termed in the Application as 'route 1' to the junction of Joyce Green Lane/A206, where it would follow 'route 2B' until it re-joins 'route 1' at Rennie Drive. The Electrical Connection would then follow 'route 1' to the Littlebrook substation. This is confirmed in the Applicant's submission to the Examination at Deadline 2 and the updated Land Plans (2.1, REP2-003) and Works</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	<p>Plans (2.2, REP2-004).</p> <p>In respect of the confirmed route, the assessment of potential construction traffic effects from the installation of the Electrical Connection is as presented in Paragraphs 6.9.61 – 6.9.89 of Chapter 6 Transport of the ES (6.1, REP2-017), however the reported effects in Erith would no longer occur given the final route design. The assessment reports that there would be no significant effects (including effects to driver delay) from the installation of the Electrical Connection other than temporary severance of bus service nos. 229, 469 and school services nos. 602 and 669. Measures to mitigate effects from the construction of the Electrical Connection would be detailed as part of the Construction Traffic Management Plan (CTMP), an outline of which was provided with the Application outline Construction Traffic Management Plan (CTMP) (Appendix L of Appendix B.1 Transport Assessment to the ES (6.3, REP2-064)). The outline CTMP comprises complementary elements of logistics planning but also incorporates the available information relating to how workforce traffic would be managed at each stage of construction, helping to minimise the impact of the construction period. Compliance with the CTMP, which is to be in substantial accordance with the submitted Outline CTMP, is secured (for each part of construction) via Requirement 13 at Schedule 2 to the dDCO (3.1, Rev 2, submitted at Deadline 3). With the inclusion of mitigation measures, effects from the installation of the Electrical Connection would be not significant.</p> <p>The construction works associated with the Electrical Connection would be transient and would result in delays similar to other statutory utility road works as the construction process moves along the route. The construction works would not be as extensive or as disruptive as major road works. When trenching works are being undertaken, it is expected that a length of up to 200m would typically be excavated, however the actual working areas that would be fenced off could be up to 300m to</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
	allow for safe clearances including traffic management. It is expected that a typical trench length would be open for around seven days, on a rolling basis along the length of the route.
28 (although numbered 27 in the rep). What environmental impacts such as noise and dust would there be and what actions to mitigate it have been considered?	<p>The Proposed Development has been subject to an EIA and the findings of this assessment are provided within Chapter 7 Air Quality of the ES (6.1, REP2-019) and Chapter 8 Noise and Vibration of the ES (6.1, APP-045). These chapters have considered all likely significant effects on the environment and nearest sensitive receptors and includes assessments of noise and air quality (dust), amongst other impacts. Mitigation measures will be used as appropriate where they are necessary to limit impacts, including in relation to noise and dust, and specifically, an Outline CoCP (7.5, Rev 2, submitted at Deadline 3) has been submitted with the DCO application, which the contractor will have to comply with when carrying out the construction of the Proposed Development to limit any potential effects.</p> <p>The findings in the ES report no likely significant effects from dust or noise as a result of the Proposed Development.</p>
<p>My initial questions above, may or may not be relevant and possibly superseded by events or Cory declarations But hopefully they may offer the opportunity to begin the discussion within the Labour Party and then with the local residents of all areas to be impacted by this proposed development.</p> <p>There is a provision to respond to the consultation by email or document handed</p>	<p>The Consultation Report (5.1, APP-019) explains the consultation process undertaken pre-application and includes a list of consultees, and their responses on the project to date. The Consultation Report provides responses to the comments and responses received during the non-statutory and statutory consultations undertaken in 2018.</p> <p>The Applicant is already very active within the local community and chairs the Belvedere Community Forum such that views of local residents on its existing operations can be heard. The Applicant is committed to the continuation of its</p>

Summary of respondent's question (Councillor David Putson)	Applicant's Response
<p>out at the event. However, before such responses are supplied to Cory it may be useful to have a meeting with our residents to ascertain what their views are on both the proposal and their concerns as a consequence.</p> <p>I am sure that much more considered and insightful views will be forthcoming once all parties have had the opportunity to digest this and further consultations.</p> <p>It is clear, that with China's ending of its waste processing that each country will have to solve its waste issues and find the most economically viable means to do so. To convert it to energy offers one of many solutions. I look forward to seeing the alternate views that will proceed from this initial consultation.</p> <p>I hope that this assists in offering a start to reviewing the Cory proposals and then advancing to engaging with our residents to provide them with answers too.</p>	<p>engagement with the local community via this Forum.</p>

5.2.12 After the list of questions, the respondent provides the key findings of the London Assembly Environment Committee 'Waste: Energy from Waste' report (February 2018).

5.2.13 **Table 5.3** below repeats these key findings and responds to each in turn.

Table 5.3 – Responses to findings of the London Assembly Environment Committee 'Waste: Energy from Waste' report (February 2018)

Key Findings	Applicant's Response
<p>Despite efforts to cut waste and increase recycling, more than half of London's waste ends up being incinerated. The amount of waste sent for incineration (known as "Energy from Waste") has more than doubled in the last decade, reaching nearly two million tonnes in 2017.</p>	<p>As reported in Paragraph 1.4.7 of the Applicant's Response to Relevant Representations submitted at Deadline 2 (8.02.03, REP2-054), in spite of the welcome improvements made in the prevention, re use and recycling of waste within London, over two million tonnes of non-recyclable waste is currently sent to landfill or shipped overseas.</p>
<p>Burning waste takes materials out of the circular economy, releases carbon into the atmosphere and may have negative health effects.</p>	<p>Delivery of the Circular Economy can be achieved by valuing resources to gain benefits. The Waste Strategy for England 'Our Waste, our Resources: a Strategy for England', in December 2018 (WRS 2018) confirms that energy from waste has a clear place within the 'circular economy':</p> <p><i>"But it's not just in material reuse that the circular economy delivers benefits. It's also relevant to energy generation and savings. Incineration non-recyclable or contaminated waste (such as food packaging) can generate energy. Bio-waste can also be used to make bio-gas, a renewable energy source' (WRS 2018, page 26)."</i></p> <p>REP contributes to the circular economy through the generation of energy from residual waste that would otherwise be required to be sent to landfill and through the recycling of the incinerator bottom ash (IBA) and air pollution control residue (APCR), both of which helps to reduce the need for virgin raw materials (e.g. primary won</p>

Key Findings	Applicant's Response
	<p>aggregates extracted through quarrying) and prevent the impacts of its manufacture.</p> <p>A Carbon Assessment has been prepared and submitted as part of Deadline 2 (8.02.08, REP2-059). Section 5 of the Carbon Assessment (8.02.08, REP2-059) reports that the benefit of the REP ERF compared to landfill is about 137,000 tonnes of CO₂ equivalent per year, or about 229 km CO₂ per tonne of waste processed. If heat is exported, this benefit increases to 157,000 t CO₂e or 263 kg CO₂ per tonne of waste processed.</p> <p>Paragraph 21.1.3 of the HIA (Appendix K.1 of the ES) (6.3, APP-094) concludes that no likely significant adverse effects on human health are anticipated during the operation of the Proposed Development. The assessment findings are that there may be some long-term beneficial effects on surrounding communities and vulnerable groups (such as those in social housing) associated with the provision of a secure energy supply (see Paragraph 21.1.4 of the HIA (Appendix K.1 of the ES) (6.3, APP-094)).</p>
<p>But it also generates electricity, can provide heat for local homes and businesses, and reduces the amount of waste sent to landfill.</p>	<p>The Applicant notes the response</p>
<p>Energy from waste technology (EfW) is here to stay, at least in the medium term.</p>	<p>The Applicant notes the response.</p>
<p>But while London has the EfW capacity to meet demand, it currently exports approximately over half a million tonnes of waste for incineration a year.</p>	<p>As reported in Paragraph 1.4.7 of the Applicant's Response to Relevant Representations submitted at Deadline 2 (8.02.03, REP2-054), in spite of the welcome improvements made in the prevention, re use and recycling of waste within London, over two million tonnes of non-recyclable waste is currently sent to landfill or shipped overseas. This is waste that could provide societal benefits to London and</p>

Key Findings	Applicant's Response
	to the country through generating electricity, moving waste further up the waste hierarchy and providing carbon savings.
London needs to become self-sufficient in managing the waste it generates, reducing waste sent to EfW as population grows.	As demonstrated in PBR (7.2, APP-103) , London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be operational after 2025. REP will help London transition to a low-carbon and self-sufficient city providing an appropriate alternative to treat London's waste which remains after recycling. This provides a substantial and reliable alternative to waste being sent to landfill or shipped overseas, especially as population grows. Without REP, London will not be self-sufficient and will have a waste capacity gap, resulting in waste going to more intensive carbon producing landfill sites or abroad.
The Mayor intends to regulate London's energy from waste sector by limiting its carbon emissions and maximising the energy benefits it can generate.	The primary policy to achieve these aims is the Carbon Intensity Floor (CIF). As demonstrated in the Combined Heat and Power Supplementary Report (5.4.1, REP2-012) , REP can achieve the threshold value for CIF in power only mode and therefore satisfies the Mayor's policy.
London must begin to limit not only the amount but also the type of waste is sends to EfW. As London strives to be greener, there are further steps the Mayor should take to manage the environmental impact of EfW in the short term.	<p>The Proposed Development would treat residual (non-recyclable) waste at the appropriate level of the waste hierarchy.</p> <p>The assessments within Chapters 6 to 14 of the ES (6.1, APP-043 to APP-051, Rev 1) demonstrate that significant adverse effects to the environment have been minimised where practicable.</p>

5.2.14 After the list key findings of the London Assembly Environment Committee 'Waste: Energy from Waste' report (February 2018), the respondent provides further comments as summarised in **Table 5.4** below. The Applicant responds to each point in turn in **Table 5.4** below.

Table 5.4 – Responses to further comments made by Councillor Dave Putson

Respondent's comment	Applicant's Response
<p>Cory are returning to the size of incineration plant that they first applied for in the 1980's. They got half and this is their continuing attempt to achieve the full 1980's application. Sadly, I am opposed as I believe that incineration is not the answer. We need to be recycling, re using and reducing our waste not burning it.</p>	<p>National Policy Statement (NPS) EN-1 covers Energy from Waste electricity generation (see Section 3.4) and NPS EN-3 specifically sets out the national policy for Energy from Waste (see Section 2.5). Indeed, Paragraph 2.1.2 of NPS EN-3 is explicit, "the [Government] should act on the basis that the need for infrastructure covered by this NPS has been demonstrated." Paragraph 3.1.3 of NPS EN-1 goes on to state that the scale and urgency of the identified need is as described for each of them in Part 3. For Energy from Waste, which is classed as renewable electricity generation, that need is "urgent" (Paragraph 3.4.3).</p> <p>As set out in the PBR (7.2, APP-103) the Applicant has further identified the substantial need for further ERF capacity in London. REP will not prevent recycling or hinder local recycling rates. As waste management follows the most cost effective solution, the ERF component of REP will not hinder recycling rates as recycling is a cheaper process for waste producers. Waste producers thereby have a financial imperative to maximise recycling where they can. This financial incentive is demonstrated in WRAP's Gate Report 2018. Table 1 of WRAP's published Gate Report 2018 clearly shows that the median gate fees at material recycling facilities and organic waste treatment facilities (e.g. anaerobic digestion facilities), which are preferred in the waste hierarchy, are significantly lower than gate fees at energy from waste plant and landfill facilities, with the median anaerobic digestion gate fee for England continuing to decline. Therefore, waste producers have a financial imperative to recycle and the ERF element of REP will not stop them recycling. REP will support the drive to move waste further up the waste hierarchy by preventing residual waste (waste that is left after recycling) going to landfill and work alongside</p>

Respondent's comment	Applicant's Response
	the Mayor's recycling targets and policy aspirations identified in the London Environment Strategy (LES).
Despite their vastly improved scrubbing of waste from their chimney, they still are unable to answer the serious question of ultra fine particulates which are released and are a dangerous health concern for local residents. LBB when asked were completely flummoxed by this question.	<p>Contrary to the assertion in the question, bag filters are very effective at removing ultrafine particles. This is because a layer of particles called “filter cake” builds up on the surface of the filter material which consists of reagents (lime and activated carbon) and reaction products. Smaller particles are adsorbed onto the surface of the particles in the filter cake. The smaller the particle, the greater the probability that it will be adsorbed onto another particle. The abatement efficiency for particles below 1 µm has been shown to be more than 99.8%.</p> <p>Further information on ultrafine particles can be found in Post Hearing Note on Public Health and Evidence (8.02.27) submitted at Deadline 3.</p>
Incineration is an old technology that works for providing energy and in some instances heating, but it fails dramatically on carbon reduction	The issue of carbon reduction has been addressed earlier within Table 3 .
On one consultation I asked about carbon usage by Cory and I received three different answers from three different personnel, Low Carbon, Carbon Neutral AND Carbon Negative. Clearly it cannot be all three and I still await the answer I was promised from Cory.	The Applicant's Response to Relevant Representations (8.02.03, REP2-054) submitted at Deadline 2, responds to whether REP is renewable or low carbon (See TR-025 (Carbon) on page 83 of that document). The ERF element of REP is classed as renewable/low carbon, on the basis that the carbon emissions from the ERF will be lower than energy generation from conventional power sources and indeed lower than sending waste to landfill. In addition, the biocarbon content of the residual waste will be over 50% and therefore the ERF itself is over 50% renewable. REP also includes renewable sources of generation, the solar PV panels.
There is Crossness Nature reserve	Paragraph 11.9.27 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-

Respondent's comment	Applicant's Response
<p>immediately adjacent to the proposed development and the artificial lighting that will surround the proposed new site will have a serious and adverse impact on the migration birds and other wildlife that flock to, and nest, at this special reserve.</p>	<p>023) includes an assessment of the potential operational effects of exterior lighting required for REP on habitat (see Section 11.9 of Chapter 11 Terrestrial Biodiversity of the ES (6.1, REP2-023)). The Outline Lighting Strategy (Appendix K.3 of the ES) (6.3, APP-096) sets out, through DP 5.01, 5.02 and 5.04, the approach to lighting design prepared in consultation with an ecologist, in accordance with industry guidance in relation to mitigating lighting effects to wildlife, to ensure effects to designated areas from light spill are avoided or minimised. The operational lighting strategy is secured via Requirement 15 at Schedule 2 to the dDCO (3.1, Rev 2, submitted at Deadline 3), which requires that no part of Work Nos 1, 2, 3, 4, 5 and 6 may commence until a written scheme for the management of operational external artificial light emissions for that part has been submitted to and approved by the relevant planning authority. The Applicant has committed to ensuring the lighting will be compliant with industry standards in relation to mitigating lighting effects to wildlife, no significant lighting effects to habitats are identified.</p>
<p>Despite this being an area of Metropolitan Open Land and Green Belt there appears to be a burgeoning planning and build ethos detrimentally impacting this Nature reserve.</p>	<p>Impacts on the adjacent area of Metropolitan Open Land are addressed within Paragraphs 5.15.8 to 5.15.11 in the Planning Statement (7.1, APP-102), which reports that the Proposed Development is not expected to have an adverse impact on the openness of Metropolitan Open Land.</p>

5.3 Knights on behalf of S Wernick and Son (Holdings) Ltd and Wernick Event Hire Ltd

Introduction

- 5.3.1 Knights solicitors, on behalf of its clients S Wernick and Son (Holdings) Ltd and Wernick Event Hire Ltd (together referred to as "Wernick") submitted the following comments at Deadline 2.

We have been made aware by our client - S Wernick and Son (Holdings) Ltd and Wernick Event Hire Ltd - that the Applicant has reached a voluntary agreement for the purchase of our client's land. Contracts are currently being drawn up to formalise this agreement asap and once that contract has been completed our client will be in a position withdraw its objection. However, until the contract has been completed, our client reserves its right to attend the CPA Hearing on 30th July 2019 and set out its case to the Inspector. On that basis, although we have finalised Written Representations for WERNI and WEHL, we are not proposing to file them. We will, of course, keep the Inspector updated as this agreement is finalised.

The Applicant's response

- 5.3.2 The Applicant is grateful to Wernick for its response.
- 5.3.3 The Applicant confirms that it has reached a voluntary agreement with Wernick in respect of the sale of its land interests in the Order land. Heads of Terms have been agreed and the parties are currently in the process of documenting the Heads of Terms in legal contracts.
- 5.3.4 It is anticipated that the relevant contracts will be completed in advance of the compulsory acquisition hearing scheduled for 30 July 2019 and in all likelihood some time before then.
- 5.3.5 The Applicant will keep the Examining Authority updated in respect of progress during the course of the remainder of the examination.

5.4 Knights on behalf of SAS Depot Limited

Summary of Written Representation:

- 5.4.1 SAS Depot Limited (SASDE) has submitted a Written Representation (WR) at Deadline 2 of the examination (**REP2-090**) which sets out the reasons for its opposition to the Proposed Development.
- 5.4.2 The reasons for objection set out by SASDE in its WR include the following:
- 5.4.3 The compulsory acquisition of 6,362 m² of land (plot 02/06) owned freehold by SASDE which SASDE notes is its sole commercial property asset from which it derives its income by way of rent. SASDE considers its landholding is an asset class which is scarce in the locality; and
- 5.4.4 SASDE provides additional information in respect of the ownership of SASDE, noting that given the health and age of the shareholders and Directors, they are unlikely to be in a position to easily go through the process of finding, purchasing and managing a replacement investment property.
- 5.4.5 SASDE notes the relevant tests for compulsory acquisition included in **Section 122** of the **Planning Act 2008** and refers to the Guidance related to procedures for the compulsory acquisition of land (the 2013 Guidance) and the Guidance on the Compulsory purchase process and The Cichel Down Rules (the 2018 Guidance). It is said that the Applicant has not complied with the Planning Act 2008, the 2013 Guidance and the 2018 Guidance.
- 5.4.6 SASDE states that the decision-maker cannot be satisfied that there is a compelling case in the public interest for the inclusion of powers of compulsory acquisition in the DCO in general or the compulsory acquisition of SASDE's land and interests.
- 5.4.7 SASDE states that the Applicant is unable to demonstrate that all reasonable alternatives to compulsory acquisition have been explored and has not demonstrated that the proposed interference with SASDE's rights meets the **Paragraph 8** tests in the 2013 Guidance.
- 5.4.8 SASDE asserts that the Applicant should have gone beyond the bare minimum requirements to seek compulsory acquisition as a last resort in its negotiations as it is clearly possible that it could have acquired the land and rights necessary by agreement, at commercial values, that the development would justify.
- 5.4.9 Further SASDE sets out that the Applicant provided inadequate information in respect of the design of the Proposed Development at the pre-application stage.
- 5.4.10 SASDE challenges the statements made in the Application documents in respect of consultation and negotiations relating to the acquisition of SASDE's land interests. SASDE does not consider that the Applicant has complied with

Riverside Energy Park

Applicant's responses to Written Representations

the 2013 Guidance or the 2018 Guidance in respect of its consultation and negotiation activities.

5.4.11 The Applicant provides a response to each of the points raised in the WR below.

Response to Written Representation:

5.4.12 Riverside Resource Recovery Limited (RRRL), is the current tenant of plot 02/06 (being the 6,362 m² referred to by SASDE at **Paragraph 2** of their **WR**) by virtue of a lease completed on 23 December 2014 (**Book of Reference 4.3, REP2-010**). RRRL is a subsidiary company of the Applicant and both are companies within the Cory Group (as defined in **Section 1.2** of the **Funding Statement (4.2, APP-017)** submitted with the DCO Application). Therefore, the rent that SASDE currently receives from plot 02/06 is from a subsidiary company of the Applicant. In the event that a voluntary agreement is not reached for the Applicant to acquire the freehold from SASDE and the Applicant is awarded compulsory acquisition powers over this plot, then the loss of rental income would be a matter to be determined pursuant to the Compensation Code.

5.4.13 It is also relevant that the lease that RRRL holds from SASDE includes a right of pre-emption should SASDE decide to sell the reversion which would enable RRRL to buy the freehold. Further, there is an ability for RRRL to acquire SASDE if it purchases the reversion. This is evidence that the potential for RRRL to purchase plot 02/06 has been considered for a considerable period of time.

5.4.14 The Book of Reference (**4.3, REP2-010**) records SASDE's interests in the Order Land as follows:

- Freehold owner in respect of plot 02/06; and
- Category 2 interests in respect of plots: 02/07, 02/11, 02/20, 02/24, 02/36.

5.4.15 The Applicant does not accept the assertion that plot 02/06 is of an asset class which is scarce in south east London/north west Kent. This plot is owned by SASDE but not occupied by it. The plot is held as an investment for SASDE to receive a rental income. Accordingly, there are no grounds to oppose compulsory acquisition of plot 02/06 when the compensation that SASDE would receive can be utilised by SASDE to acquire another investment property of equivalent value and which need not be restricted to a property of the same asset class. Ardent Management Ltd. (Ardent), the Applicant's advisors in respect of land, has carried out a review of available freehold sites which have similar characteristics to plot 02/06 and has identified various sites that are available.

5.4.16 The Applicant contends that the Examining Authority, and indeed the Secretary of State, can be satisfied that the compulsory acquisition of SASDE's interests meets the requirements of **Section 122** of the **Planning**

Act 2008 as well as the 2013 Guidance and the 2018 Guidance. **Section 6.5** of the **Statement of Reasons (4.1, REP2-008)** explains why there is a compelling case in the public interest for the Order Land to be compulsorily acquired, with plot 02/06 being land that REP will be built upon, forming part of the access road and tipping hall to the Anaerobic Digestion and the Energy Recovery Facility (ERF) elements of REP. Plot 02/06 is clearly required for the construction and operation of REP, being the Nationally Significant Infrastructure Project (NSIP) comprised in the DCO Application.

5.4.17 The Respondent has made the claim that "*Cory's conduct has been manifestly contrary to Paragraphs 24-30 of the Guidance*". The reasons given for this are set out at **Paragraphs 13 to 22** of **SASDE's WR**. The Applicant does not accept this statement and rebuts any accusation that it has breached **Paragraphs 24 to 30** of the **Guidance**. The Applicant considers it necessary to respond to the accusations in respect of each of these paragraphs in further detail. These are set out in tabulated form in **Table 1** below.

5.4.18 National Policy Statement (NPS) EN-1 makes clear the reliance on the market to bring forward new facilities. REP is an industry funded NSIP, delivering on all relevant aspects of national and local policy. The need for the Proposed Development has been established in the **Project and its Benefits Report (7.2, APP-103)** and the **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)** and is underpinned by **NPS EN-3** (particularly **Paragraph 2.5.2**) which explicitly recognises that the recovery of energy from the combustion of waste is likely to play an increasingly important role meeting the UK's energy and renewable energy needs. As such, the benefits in the public interest, which are anticipated to arise from the Proposed Development (electricity generation, provision of waste capacity, moving waste higher up the waste hierarchy and carbon savings) are of national significance and would, accordingly, be on a scale outweighing the individual private loss suffered by parties whose interests in land were interfered with in order to enable the delivery of the Proposed Development. The proposed acquisition of land is legitimate, necessary and proportionate.

5.4.19 Regarding alternatives, the REP site, of which plot 02/06 forms part, is being promoted by the Applicant given the following considerations:

- the REP site means that the Applicant can directly use existing river transport infrastructure that is already geared up for waste delivery and the collection of the subsequently recovered secondary materials. This is a result of the REP site being adjacent to the existing Riverside Resource Recovery Facility (RRRF). No other site can provide this advantage and use of existing river infrastructure;
- the REP site enables the Applicant to optimise a location that is already in a low carbon and waste management use, including the ability to share infrastructure with RRRF, thereby reducing the footprint of REP and ultimately compulsory acquisition of land required for a facility the size of REP. No other site can provide this advantage of shared infrastructure;

Riverside Energy Park

Applicant's responses to Written Representations

- the REP site is a brownfield site that is adequate to accommodate a development such as REP;
- the availability of a suitable electrical connection within the vicinity of the REP site;
- the good potential for district heating; and
- the REP site's location is such that no significant adverse residual effects were identified on sensitive residential and environmental receptors from the construction, operation or de-commissioning of the Proposed Development, other than relating to townscape and visual effects.

5.4.20 As many of SASDE's representations are in respect of the consultation/negotiation undertaken by the Applicant, the Applicant refers to **Appendix C** in the **Statement of Reasons (4.1, REP2-008)** which provides an updated negotiation log as at Deadline 2 and the **Land Negotiations Summary (8.02.22, Rev 0)**. In addition, the Applicant provided a further commercial offer to SASDE on 9 May 2019, which was subsequently rejected by SASDE on 28 May 2019, accompanied by a counter offer from SASDE. The **Land Negotiations Summary (8.02.22, Rev 0)** submitted at Deadline 3 sets out the current status of negotiations.

5.4.21 These land negotiations, which include multiple commercial offers, demonstrates that the Applicant has made serious attempts to reach agreement voluntarily. Indeed, SASDE itself acknowledges that five (5) commercial offers were made before the DCO Application was even submitted.

5.4.22 The Applicant does not understand the relevance of the point made by SASDE referring to the fifth offer being made 9 days' before submission of the DCO Application. This just demonstrates that numerous offers were made before the Application was submitted in November 2018. All engagements with SASDE were undertaken by the Applicant in good faith. The Applicant has consistently taken professional advice from Ardent and all commercial offers to purchase SASDE's land were made based upon the then current market values of the land as advised by Ardent. The Applicant and SASDE have yet to agree on the value of the land and the overall compensation sum for the freehold purchase of Plot 02/06.

5.4.23 The Applicant does not accept that the compulsory acquisition of SASDE's interests would breach **Article 1** of the **First Protocol of the European Convention on Human Rights** (the Convention) for the reasons set out in **Section 10** of the **Statement of Reasons (4.1, REP2-008)**.

5.4.24 As stated above the Applicant sets out below its detailed response to the points made in **Paragraphs 14 to 22** of **SASDE's WR**.

Riverside Energy Park
 Applicant's responses to Written Representations

Table 5.5: Applicant's response to Paragraphs 14 to 22 of SASDE's WR.

SASDE WR (REP2-090) paragraph reference	The Applicant's response
14	<p>The Applicant has made commercial offers to SASDE which were informed by advice received from its land and property advisors, Ardent. The offers were made on the basis of the market value (at each instance) for SASDE's land interests. SASDE has stated that the Applicant should be prepared to pay a "significant premium", over and above the market value of the relevant land interests. This is not accepted by the Applicant. The Applicant rejects the allegation that it has failed to do even the minimum required to avoid the need for compulsory acquisition before making their application. To the contrary, it has done exactly what is required of it.</p>
15	<p>SASDE's comments on the design of REP betray a misunderstanding of the NSIP process. The design of any project evolves between the preliminary environmental information stage of the project and the subsequent application for development consent. The design of a project at the preliminary environmental information stage will not be the full and final design as the purpose of the consultation undertaken at this stage is so that consultation responses can inform the evolution of the design. The approach taken by the Applicant is consistent with this.</p> <p>The Applicant consulted with SASDE at an early stage (with discussions commencing in July 2017 followed by the Applicant's first offer on 11 August 2017). The Applicant did not ignore SASDE's questions, regarding the proposed cable routes and has sought to share all appropriate information available at that time. Moreover, the Environmental Statement addresses alternative route queries. These issues have been discussed in meetings with SASDE and its advisors.</p>

Riverside Energy Park
 Applicant's responses to Written Representations

SASDE WR (REP2-090) paragraph reference	The Applicant's response
16	<p>The Applicant refutes the comments made by SASDE within Paragraph 16 of their WR. The negotiation log set out in Appendix C in the Statement of Reasons (4.1, REP2-008) exemplifies that SASDE was both consulted at an early stage and has subsequently been consulted extensively. The Applicant therefore does not accept the criticism levelled at it in this paragraph of the WR.</p>
17	<p>The Applicant has provided various undertakings to SASDE's advisors and has managed these and payment of the same promptly on receiving the supporting invoices. Whilst the earlier offers, which were rejected, ask for acceptance by a specific date they were not time limited. Each offer was revised to reflect changes in the property market during that period and largely take in account SASDE's concerns and opinions on value.</p> <p>The more recent offer accounts for the Compensation Code and the earlier offers incorporated personal commercial considerations at SASDE's request which would not be taken into account in the event of compulsory acquisition. The offers made are all reasonable attempts to acquire SASDE's interests on the dates made. In total, six (6) written offers have been made to date and numerous commercial meetings have been held with SASDE in addition since July 2017 to discuss commercial principles and explore possible options, all of which were subject to the Applicant's board approval.</p>
18	<p>It is inappropriate and contradictory to SASDE's earlier comments for them to criticise the Applicant for seeking to engage at an early stage with SASDE.</p> <p>The concept of compulsory acquisition was first raised with SASDE during the meeting held on 11 December 2017 between the parties. Indeed, SASDE confirms this point within their written response to the Applicant dated 17 December 2017. The Applicant has</p>

Riverside Energy Park
 Applicant's responses to Written Representations

SASDE WR (REP2-090) paragraph reference	The Applicant's response
	<p>been clear that it would not have consulted at such an early stage were it not 'serious' about Riverside Energy Park. The Applicant maintains that the record of correspondence submitted in the Statement of Reasons (4.1, REP2-008) is accurate.</p>
19 & 20	<p>The 2013 Guidance states that "<i>applicants are urged to consider</i>" alternative dispute resolution techniques. Therefore, there is no requirement to utilise such alterative techniques. Furthermore, before submission of the DCO Application, the Applicant made five (5) commercial offers to SASDE, which demonstrates the level of negotiations that were taking place prior to submission. At no point was there ever a suggestion that the ongoing discussions would benefit from alternative dispute resolution. Furthermore, post submission, the Applicant and SASDE have been engaged in discussions and negotiations, holding meeting on 5th April 2019 and 29th April 2019, with a further commercial offer being made by the Applicant on 9 May 2019.</p> <p>Undertakings have been provided to both SASDE's legal and land advisors, in part to advise SASDE on the DCO and compulsory acquisition process. Furthermore, all commercial meetings and negotiations have been led and attended by one Director of the Applicant, being a named individual known to SASDE for many years, and who has made himself available to SASDE as their direct contact since discussions commenced in July 2017.</p> <p>There can be no criticism that the Applicant has not engaged with SASDE or sought to reach a voluntary agreement.</p>
21	<p>The Applicant has agreed to pay SASDE's reasonable legal and surveyor fees and has provided various undertakings which total £9,500 plus VAT and disbursements to date. Invoices have been submitted to the Applicant direct from SASDE's advisors and</p>

Riverside Energy Park
 Applicant’s responses to Written Representations

SASDE WR (REP2-090) paragraph reference	The Applicant's response
	<p>these have been settled promptly on receipt of all invoices regarding the same. The Applicant confirms that undertakings were provided in November 2018 to SASDE’s solicitors, the invoice for which was not received until 12 April 2019 but which was settled within a matter of days.</p> <p>During early discussions and negotiations with SASDE (most specifically within the Applicant’s email of 15 December 2017), the Applicant offered to undertake a land swap, with the Applicant offering to take on the burden and responsibility of purchasing a similar sized plot within a proximate location to Plot 02/06, once identified. The task of identifying and securing an alternative site was also offered, all on the basis that this would have alleviated the personal impact on the directors of SASDE time.</p>
22	<p>Responses to the Relevant Representations referred to in paragraph 22 of the WR have been made at Deadline 2 in ‘The Applicant responses Relevant Representations’ (8.02.03, REP2-054). The Applicant does not repeat those comments here.</p>

5.5 Mrs Margaret J White

Introduction

5.5.1 Mrs M. J White raises four main areas of concern with the Proposed Development. These are:

- Necessity for the Proposed Development – The respondent questions why Belvedere should be more blighted than others given it is already home to three incinerators. The respondent questions why a new facility is required when she asserts that the existing Riverside Resource Recovery Facility (RRRF) is not operating at full capacity. Air quality effects are also questioned;
- Safety – The respondent has concerns over fire and explosion risk, flood risk and terrorism;
- Harm to Public Health – The respondent has concerns over emissions of pollutants from the Energy Recovery Facility (ERF) and RRRF on people's health; and
- Traffic Pollution – The respondent has concerns over traffic emissions from the Proposed Development in isolation and added to development proposed under the Bexley Plan, as well as congestion from the construction of REP and the Electrical Connection and the operation of REP.

5.5.2 This response addresses each of these concerns in turn.

Response

Necessity for the Proposed Development

5.5.3 The Applicant's **London Waste Strategy Assessment (LWSA) (Annex A of the Project and its Benefits Report (PBR) (7.2, APP-103))** incorporates a range of scenarios based on the different waste forecasts and recycling assumptions set out in both the adopted and draft London Plans and the London Environment Strategy. It is a comprehensive assessment of the waste strategy within London. In all the scenarios, there remains a pressing need for additional residual waste treatment capacity, particularly if London is to achieve its policy priorities of net self-sufficiency, reduced reliance on landfill and export overseas.

5.5.4 These are key priorities to achieve. In 2015 London exported 11.4 million tonnes of waste, with 5.1 million tonnes of that exported to landfill²⁷, predominantly to the East of England and South East of England, but also utilising recovery facilities on mainland Europe.

²⁷ Draft London Plan, paragraphs 9.8.1 and 9.8.2.

Riverside Energy Park

Applicant's responses to Written Representations

- 5.5.5 The **LWSA (Annex A of the PBR (7.2, APP-103))** demonstrates that achieving the London Plan policy priorities of net-self-sufficiency and 65% recycling would require an additional c. 900,000 tonnes of residual waste treatment capacity for London alone (**Table 6.1**, scenarios 2a, 3b, and 4).
- 5.5.6 London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be operational after 2025.
- 5.5.7 The **LWSA (Annex A of the PBR (7.2, APP-103))** is focused on waste generated within London. Looking at the policy and monitoring documents prepared by the waste planning authorities nearby, but outside of London, shows a further 1.5 to 2 million tonnes of residual wastes that should be diverted from landfill. This demonstrates an even greater urgency for waste capacity, which REP will assist with.
- 5.5.8 **Table 1.1** of the **LWSA (Annex A of the PBR (7.2, APP-103))** presents both the permitted and the actual inputs for each of the ERF considered in the assessment. This table shows that RRRF has consistently been receiving 85 to 95 per cent of the permitted throughput, which is standard industry practice. ERFs do not operate at 100% because there are times when the facility needs to be shut down, for example during maintenance. Accordingly, RRRF is operating at its maximum throughput.
- 5.5.9 The Applicant considers the location of REP to be highly suitable for this type of development, optimising the use of an existing site and the associated jetty and wider River Thames (the latter supporting Policy 7.26 of the adopted London Plan, Policy SI9 and SI15 of the Draft London Plan and Policy CS15 of LBB's Core Strategy through the use of the River Thames).
- 5.5.10 In deciding upon the location for REP, the Applicant has had regard to factors such as those described in Section 2.5 of NPS EN-3 which sets out factors influencing site selection in relation to 'Biomass and Waste Combustion' facilities. Furthermore, as noted in **Paragraph 5.2.6 of Chapter 5, Alternatives Considered** of the **ES (6.1, REP2-015)**, given that the Applicant owns the majority of the freehold of the REP site (approximately 85% with a further 9% currently under lease), together with the proximity of associated road and jetty links with the River Thames (and associated network of riparian Waste Transfer Stations in London), the location is considered ideally suited for the Proposed Development. **Appendix A to the Statement of Reasons (4.1, REP2-008)** explains the benefits of the REP site, being:
- The Applicant's existing land ownership and ability for land assembly;
 - The ability to optimise existing river transport infrastructure that is already established for waste and material delivery and export;

Riverside Energy Park

Applicant's responses to Written Representations

- The ability to optimise a location that is already in low carbon and waste management use (including the ability to share infrastructure with RRRF, thereby reducing the footprint of REP);
- The use of a brownfield site that is adequate to accommodate REP;
- Proximity to the necessary electrical connection;
- The good potential for district heating;
- The location is such that there are no significant adverse effects on the sensitive residential and environmental receptors; and
- The site is promoted in policy.

5.5.11 As reported in **Paragraphs 16.2.2 and 16.2.3 of Chapter 16 Summary of Findings and In-Combination Effects** of the **ES (6.1, APP-053)**, no significant adverse residual effects are identified from the construction, operation or de-commissioning of the Proposed Development other than relating to townscape and visual effects. Such effects are to be considered as part of the wider planning balance.

5.5.12 Whilst it is recognised that there are 2 existing incinerators (Crossness Sewage Treatment Works and Riverside Resource Recovery Facility) within 5km of Belvedere, the Applicant selected the REP site for the specific benefits and locational advantages outlined above.

5.5.13 Positive development conditions exist in the immediate area around the REP site which include good access to the River Thames, close proximity of other supporting industrial development and the relatively isolated location, away from any neighbouring large residential areas. Suitable site choice is one of the main considerations for large scale industrial development and it is noted that the REP site, immediate surrounding area and sections of the Electrical Connection route form part of the Belvedere Industrial Area which is designated as a Strategic Industrial Location (SIL) and Preferred Industrial Location (PIL) (see London Plan Policy 2.17). The site is also within the Bexley Riverside Opportunity Area which proposes a minimum of 4,000 new homes.

5.5.14 The use of the site also accords with the London Plan which encourages new development to optimise the use of existing site infrastructure. Further information is also provided in the **PBR (7.2, APP-103)** and subsequent **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)** submitted for Deadline 2.

5.5.15 The Anaerobic Digestion element of REP provides a facility to effectively and efficiently manage food waste arising from both the London Borough of Bexley and the local area. National Waste Policy - 'Our Waste, Our Resources: A Strategy for England' (WRS 2018) promotes an increase in, and potential mandatory, food waste collection. With this, together with London Policy

Riverside Energy Park

Applicant's responses to Written Representations

driving a significant increase in recycling and composting rates, the Applicant sees an increasing need for new infrastructure to manage food waste.

5.5.16 As such, REP will not only play a significant part in addressing London's residual waste management infrastructure shortfall but can also provide an in-borough solution for the London Borough of Bexley which currently sends its food and green waste to be processed out of the borough.

5.5.17 As stated in **Paragraph 7.7.50 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** the emissions from RRRF have been taken into consideration in the baseline air quality assessment as the plant is currently operational. The predicted emissions from REP have then been added to this baseline to give an overall prediction of likely significant effects.

5.5.18 The findings of the air quality assessment, are summarised in **Table 7.37 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** which shows that there will be no likely significant residual air quality effects on human or ecological receptors as a result of the construction or operation of the Proposed Development, when considered either in isolation or in combination with other planned developments.

5.5.19 In addition, as stated in the **Environmental Permit and Air Quality Note (8.02.06, REP2-057)**, submitted at Deadline 2, in the Environmental Permit (EP) application "*the Applicant has proposed what is understood to be the 'lowest' NO_x emission limit within the EP application for any large-scale conventional ERF within London or indeed the UK, being 75 mg/Nm³. This is a lower emissions limit than that assumed in the ES for the DCO application, being 120 mg/Nm³. As reported in the DCO application (6.1, APP-044), emissions of NO_x, with an emission limit of 120 mg/Nm³, will have a 'negligible' impact at sensitive receptors. Therefore, in applying for an emission limit of 75 mg/Nm³ within the EP application, the impact will be less than predicted in the DCO application.*"

5.5.20 The Applicant therefore disagrees with the statement that the Proposed Development would be counter to the Mayor's Air Quality Strategy (2015) which has been fully considered in preparing the assessment presented in **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**.

5.5.21 It is also noted by the Applicant that Statements of Common Ground (SoCG) have been signed with Natural England, London Borough of Barking and Dagenham, Dartford Borough Council and the Port of London Authority, all of which agree with the Applicants assessment of air quality effects, as presented in the ES and supporting documents.

Safety

5.5.22 The Applicant has addressed all of the concerns raised by the respondent in **Theme TR 018 – Safety** in **The Applicants Responses to Relevant Representations** submitted at Deadline 2 (**8.02.03, REP2-054**). This covers

Riverside Energy Park

Applicant's responses to Written Representations

the safety of the Proposed Development in terms of potential fire and explosion risk events.

5.5.23 Safety concerns over flood risk are fully addressed in the **Flood Risk Assessment (FRA), (5.2, APP-033)** submitted to accompany the DCO Application, which concludes at **Paragraph 11.1.3** that the Proposed Development will be safe for its lifetime without increasing flood risk elsewhere, thus meeting the requirements of National Policy Statements EN-1 (Paragraph 5.7.3), EN-3 (Paragraph 2.3.2) and EN-5 (Section 2.4) and the revised National Planning Policy Framework (NPPF).

5.5.24 In relation to potential terrorist attacks, whilst the general overall risk for society is recognised, the REP site would be inherently secure and safe. All reasonably foreseeable security measures will be incorporated into the design of the Proposed Development. As stated in **Paragraph 3.8.1 of Chapter 3 Project and Site Description of the ES (6.1, REP2-013)**, the REP site would be enclosed by a palisade fence which includes proportionate lighting to the perimeter at night and CCTV that covers the entire REP site. Gates and barriers would be controlled by an access control system, along with all of the outer building doors and strategic internal doors. Weighbridge barriers would be controlled by the weighbridge system and would communicate to the access control system to open gates when exiting. Access would be strictly controlled by staff at all times and would not be accessible from public locations.

5.5.25 Security staff would be present on site to monitor for the presence of potential threats e.g. drones.

5.5.26 No potential terrorist threat has been recorded at the existing RRRF site since it became operational.

5.5.27 There is no evidence to suggest that two ERF plants located in close proximity would give rise to an increased threat.

Harm to public health

5.5.28 A **Human Health Risk Assessment (HHRA)** accompanies the air quality assessment and is presented in **Appendix C.3 of the ES (6.3, REP2-040)**. The HHRA considers the potential effects on human health arising from long-term exposure to dioxins and furans, dioxin-like polychlorinated biphenyls (PCBs) and trace metals emitted from the proposed ERF at REP. **Paragraphs 3.6.1-3.6.4 of Appendix C.3 HHRA of the ES (6.3, REP2-040) and Paragraph 7.9.41 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** conclude that no likely significant effects are anticipated in relation to long term exposure to dioxins and furans, dioxin-like PCBs and trace metals.

5.5.29 **Table 7.34 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** provides the maximum ground level concentrations of nitrogen, sulphur dioxide and particulates within the study area. The assessment of potential effects on

human receptors from these pollutants is presented in **Paragraphs 7.9.21–7.9.32 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**.

- 5.5.30 **Paragraph 7.13.2 of Chapter 7 Air Quality of the ES (6.1, Rev 1, REP2-019)** reports the assessment findings that there would be no likely significant effects on human receptors.
- 5.5.31 **Paragraphs 3.5.5-3.5.12 of Appendix C.3 HHRA of the ES (6.3, REP2-040)**, consider the likely carcinogenic and non-carcinogenic effects of the emissions from REP on human health. As stated in **Paragraph 7.9.40 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**, *“an individual with maximum exposure is not subject to a significant carcinogenic risk or non-carcinogenic hazard, arising from exposure via both inhalation and the ingestion of foods.”* Therefore, it is considered that there will be no likely significant effects anticipated in relation to long term exposure to emissions from REP on human health.
- 5.5.32 Furthermore, **Paragraph 21.1.3 of the Health Impact Assessment (HIA) (Appendix K.1 of the ES) (6.3, APP-094)** concludes that no likely significant adverse effects on human health are anticipated during the operation of the Proposed Development. The assessment findings are that there may be some long-term beneficial effects on surrounding communities and vulnerable groups (such as those in social housing) associated with the provision of a secure energy supply (see **Paragraph 21.1.4 of the HIA (Appendix K.1 of the ES) (6.3, APP-094)**).
- 5.5.33 Further details on Human Health can be found in the **Post Hearing Note on Public Health and Evidence (8.02.27, submitted at Deadline 3)**.

Traffic Pollution and Congestion

- 5.5.34 It is acknowledged that there will be additional transport movements associated with construction of the Proposed Development, however, as stated in **Paragraph 7.9.12 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**, and confirmed through **Paragraph 2.4.6 of the Applicant's Responses to First Written Questions (8.02.04, REP2-055)** submitted at Deadline 2, the potential effect of traffic emissions during the construction period would be negligible and not significant.
- 5.5.35 **Chapter 7 Air Quality of the ES (6.1, REP2-019)** presents the assessment of potential effects of emissions from additional operational traffic (from both river and road) associated with the Proposed Development. **Paragraph 7.9.13 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** reports the assessment of the potential effects on local air quality from road traffic associated with the Proposed Development. The predicted concentrations of NO₂, PM₁₀ and PM_{2.5} are presented in **Appendix C.1 Traffic Modelling of the ES (6.3, REP2-036)**. The assessment reports that the magnitude of impact is negligible at all locations considered, and road traffic impacts are therefore considered not significant.

Riverside Energy Park

Applicant's responses to Written Representations

- 5.5.36 In order to assess a possible worst case scenario, to provide a robust assessment, the assessment considered a scenario of 100% waste delivery by road. A further scenario with a much smaller percentage (around 25%) being delivered by road and has also been assessed.
- 5.5.37 Importantly the updated **draft Development Consent Order (dDCO) (3.1, Rev 2**, submitted at Deadline 3) includes a new requirement, **Requirement 14** in **Schedule 2**, which restricts the number of two-way vehicle movements made by heavy commercial vehicles delivering waste to both the ERF (work number 1A) and the Anaerobic Digester (work number 1B) during the operational period to a maximum of 90 vehicles in and 90 vehicles out per day, save in circumstances where there is a jetty outage.
- 5.5.38 As a river based logistics business, and having invested heavily in river-based infrastructure at RRRF, the Applicant is also subject to a strong commercial imperative to maximise use of river transport.
- 5.5.39 To further seek to minimise potential effects of traffic during the operational phase, a number of mitigation measures are set out in **Section 6** of the **Outline Operational Worker Travel Plan (Appendix M to Appendix B.1 (Transport Assessment) to the ES (6.3, APP-066))** which is secured via **Requirement 15** at **Schedule 2** to the **dDCO (3.1, Rev 2**, submitted at Deadline 3). Such measures including encouraging cycling, walking and use of public transport, sustainable car use and raising the awareness and benefits of sustainable travel to encourage non-car modes of travel amongst the workforce for REP.
- 5.5.40 **Paragraphs 7.9.14 to 7.9.19** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** report the assessment of emissions from increased operational river vessel movements associated with the Proposed Development. The assessment concludes that the magnitude of impact is negligible at all assessed locations and river transportation impacts are considered not significant.
- 5.5.41 As reported in **Table 4.3** of **Chapter 4 ES Assessment Methodology** of the **ES (6.1, APP-041)**, cumulative transport effects from 'other developments' are inherently included within the REP transport model to allow accurate predictions of future transport scenarios. Accordingly, cumulative air quality impacts from transport relating to future development anticipated under the Bexley Plan are provided for within the assessments described above.
- 5.5.42 With regards to potential congestion on the local highway network, **Paragraph 6.9.13** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)** reports that there would be one junction with predicted temporary significant adverse construction effects in relation to driver delay (based on the reasonable worst case analysis). However, mitigation measures in the updated **Outline Construction Traffic Management Plan (CTMP) (Appendix L of Appendix B.1 Transport Assessment to the ES (6.3, REP2-064))** which is secured via **Requirement 13** at **Schedule 2** to the **dDCO (3.1, Rev 2**, submitted at Deadline 3) and which requires the CTMP to be in substantial accordance with

Riverside Energy Park

Applicant's responses to Written Representations

the updated **Outline CTMP** submitted with the application reduces this effect to not significant. As stated in **Paragraph 6.13.3** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)** no residual likely significant effects are anticipated from the construction of the Proposed Development.

5.5.43 In addition, as stated in **Paragraphs 6.9.32-6.9.60** and **6.13.3** and **6.13.4** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)**, no likely residual significant traffic and transport effects are anticipated from the operation of the Proposed Development when considering both the 100% waste delivery by road scenario, and the 'nominal' scenario of 25% of waste being delivered by road. The assessment in the ES considers both scenarios and identifies the 'worst case' scenario to provide a robust assessment approach, when considered either in isolation or in combination with other planned developments.

Conclusion

5.5.44 In conclusion, the Applicant considers the location of REP to be highly suitable for this type of development, optimising the use of an existing site and the associated jetty and wider River Thames infrastructure, which is in accordance with local and national planning policy.

5.5.45 In deciding upon the location for REP, the Applicant has had regard to factors such as those described in Section 2.5 of NPS EN-3 which sets out factors influencing site selection in relation to 'Biomass and Waste Combustion' facilities. Furthermore, as noted in **Paragraph 5.2.6** of **Chapter 5, Alternatives Considered** of the **ES (6.1, REP2-015)**, given that the Applicant owns the majority of the freehold of the REP site (approximately 85% with a further 9% currently under lease), together with the proximity of associated road and jetty links with the River Thames (and associated network of riparian Waste Transfer Stations in London), the location is considered ideally suited for the Proposed Development.

5.5.46 As stated above and in **Chapter 6 Transport** of the **ES (6.1, REP2-017)** and **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**, there are no residual significant impacts to people's health arising from the Proposed Development and traffic pollution. Furthermore, there is no evidence to suggest that there is an increased risk to safety.

5.6 Jon Cruddas MP

Introduction

5.6.1 Jon Cruddas, MP for Rainham and Dagenham raises five main areas of concern with the Proposed Development. These are:

- Air quality and emissions;
- The economic cost to society;
- Environment, biodiversity and climate change;
- Recycling rates; and
- Rainham constituents.

5.6.2 We have addressed each of these in turn below.

Response

Air quality and emissions

5.6.3 The respondent cites the Greater London Authority's (GLA) response to the Section 42 Statutory Consultation, which states that "*incineration of solid waste can lead to emissions of toxic heavy metal, dioxins and other substances that are detrimental to human health and biodiversity*" and which would have negative effects on Rainham. The Applicant notes that this has been addressed through the **Applicant's Responses to Relevant Representations (8.02.03, REP2-054)** submitted at Deadline 2, responding to the same respondent (RR-036). The Applicant's response to RR-036 demonstrates that there is no evidence from the assessments carried out in respect of the Proposed Development to support the respondent's, and indeed the GLA's, assertions.

5.6.4 The Applicant has also provided a response to GLA's Section 42 Statutory Consultation response at **Appendix J.2** of the **Consultation Report (5.1, APP-030)** as part of the DCO Application.

5.6.5 The respondent also questions the cumulative effect of the Proposed Development with the existing Riverside Resource Recovery Facility (RRRF). **Paragraph 7.5.50** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** explains how the baseline for the air quality modelling includes existing emissions, such as those from operational facilities, including the RRRF plant and Crossness Sewage Sludge Incinerator. The predicted emissions from Riverside Energy Park (REP) have then been added to this baseline to give an overall prediction of likely significant effects.

The assessment of potential cumulative air quality effects does not identify any other significant point source emissions which would "significantly impact on the baseline to which the REP impacts have been added", as reported in

Paragraph 7.10.4 of Chapter 7 Air Quality of the ES (6.1, REP2-019). Beyond identifying point source emissions, there is no mechanism to identify the contribution of air quality effects of each individual project included in the cumulative assessment. The results of the combined emissions are reported in **Appendix C.2.2 of the ES (6.3, REP2-039)** which show that no thresholds are breached, and no likely significant effects are predicted.

- 5.6.6 Although the respondent has made assumptions about the levels of NOx emissions from both the RRRF and the ERF at REP and then added these together, in reality, the interaction of emissions from two facilities is far more complex and influenced by, amongst other things; weather conditions, buildings, and relative stack heights. It is therefore not accurate to simply add the emissions together. However, detailed modelling has been undertaken of the likely emissions from REP and the results are presented in **Chapter 7 Air Quality of the ES (6.1, REP2-019)**. As stated above, the modelling has taken into consideration the emission concentrations and dispersion profiles from RRRF, modelled together with the emissions concentrations and dispersion profiles from REP to give a set of results which includes both plants operating together. As summarised in **Table 7.34 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**, the operation of REP, together with the operation of RRRF, would not give rise to any likely significant effects with regard to air quality and emissions.
- 5.6.7 Dispersion plots showing emissions profiles are presented in **Figures 7.5 (6.2, Rev 2, submitted at Deadline 3) to 7.9 (6.2, APP-056)** of the ES.
- 5.6.8 It is important to note, that the Applicant's existing RRRF has been operating within its legal EU emission limits and Environmental Permit limits since becoming operational in 2011. As will be the case with REP, the operation of RRRF is subject to stringent emissions limits set by an Environmental Permit granted by the Environment Agency.
- 5.6.9 Furthermore, the NOx emission rate of 120mg/Nm³ cited by the respondent is a theoretical worst-case maximum. The assessment found that effects were considered to be not significant even in that scenario. The Applicant, in its Environmental Permit, which has been 'Duly Made'²⁸ by the Environment Agency in February 2019, has committed to invest in additional abatement systems which will result in a significant reduction in NOx emissions from REP compared to those assessed as part of the ES for the DCO Application and as such, the ERF would operate well below legislative limits.
- 5.6.10 Whilst it is recognised that the Amager Bakke facility in Copenhagen is a different scale and model of plant to the ERF proposed at REP, the Applicant felt that it served as a good example of a modern, clean plant operating well below legislative air quality limits and was therefore a good comparator plant to highlight to the respondent.

²⁸ ¹ In accordance with EA Guidance titled 'RGN 3: Deciding applications are duly made and requests for further information', dated February 2011, "An application is duly made if it contains the required components and sufficient information for it to begin to be determined".

- 5.6.11 The respondent refers to research published by UKWIN (2018)²⁹ which discusses air quality effects associated with RRRF and particulate matter produced as a by-product of incineration. The respondent raises concern that the emissions from REP and RRRF would result in '*more harmful particulate matter than anywhere else in the country; this would have serious implications on human health in the area*'. The Applicant rejects this claim and considers the RRRF emissions calculated within the UKWIN report assumed a constant emissions factor of 0.022 kg of particulate emissions per tonne of waste, which resulted in RRRF, being the second largest EfW plant in the country, being automatically calculated to have the second highest level of emissions. However, the actual emissions from RRRF are considerably lower than the claimed emissions factor. The Environment Agency has produced a response to UKWIN, attached as **Appendix E** to the Applicant's **Post Hearing Note on Public Health and Evidence (8.02.27)**, submitted at Deadline 3, in which the EA says that the emission factors are out of date. The Applicant can confirm that the actual emissions from RRRF in 2015 were around 3 tonnes, rather than the 16.4 tonnes claimed by UKWIN and reported by the respondent. The EA also notes that EfW plants processing municipal waste contributed 0.05% of total UK PM2.5 emissions in 2016.
- 5.6.12 **Table 7.34 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** provides the maximum ground level concentrations of nitrogen, sulphur dioxide and particulates within the study area. The assessment of potential effects on human receptors from these pollutants is presented in **Paragraphs 7.9.21 – 7.9.32 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**.
- 5.6.13 **Paragraph 7.13.2 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** reports the assessment findings that there would be no likely significant effects on human receptors.
- 5.6.14 We note that although the respondent cites a DEFRA report setting out the potential health effects on human health from exposure to particulates, and also provides statistics on lung disease related deaths in Barking and Dagenham, they have not provided any evidence to link lung disease or poor health to ERF plants, such as the one proposed at REP. The respondent has used assertion and assumptions from two unrelated data sets to claim the potential health effects from ERF plants without considering any other possible causes. The British Lung Foundation report "The Battle for Breath" from 2016, for example, refers to smoking as the most common cause of lung cancer and Chronic Obstructive Pulmonary Disease (COPD). As stated above, particulates have been modelled as part of the air quality assessment undertaken for REP and no likely significant effects are predicted.
- 5.6.15 Whilst the respondent quotes statistics on infant mortality and links 'spikes' in infant mortality to emissions from the Crossness Sewage Sludge Incinerator and RRRF, no evidence is provided to support this. The alleged peaks in mortality could be for any number of totally unrelated reasons. As the

²⁹ http://ukwin.org.uk/btb/Particulate_Pollution_July_2018.pdf

respondent says, the graph only considers a total of 17 infant deaths over 22 years, or less than 1 a year, and the Applicant estimates that the graph shows a variation between 0 and 2 infant deaths a year. It is simply not possible to draw conclusions from this limited data. The respondent has not provided any data on infant mortality rates in other wards in Havering for comparison purposes and it is therefore not possible to say whether the alleged trend is specific to this ward or more general.

5.6.16 The Applicant notes that Public Health England (PHE) commissioned a detailed study into health outcomes around existing UK EfW facilities.³⁰ This study considered over 1 million births, 18,600 infant deaths and all 22 operational EfW plants over the period 2003-2010. It did not reveal any tangible links between Fetal growth, stillbirth, infant mortality and other birth outcomes near UK Energy Recovery Facilities and found no evidence that exposure to particulates from, or living near to, an ERF operating to current EU standards was associated with harm for any of the following outcomes investigated: birth weight, small for gestational age (SGA) at term, stillbirth, neonatal, post-neonatal and infant mortality, multiple births, sex ratio and preterm delivery.

5.6.17 1An additional paper has been published from the same study, looking specifically at whether there is a change in infant mortality rates associated with the opening of a new Energy-from-Waste plant. The results from this study were published in April 2019³¹. The authors considered infant mortality rates within 10 km of eight EfW plants processing municipal solid waste which opened over the period 1996-2012 and compared these with infant mortality rates in comparator areas. The authors conclude "*we do not find evidence of an association of MWI opening with changes in risks of infant mortality or sex ratio in comparison with control areas.*" This is exactly the issue which the respondent is raising but it has been considered in a far more thorough way via scientific research commissioned by the government's advisors on this area. The Applicant suggests that this should be given far more weight.

5.6.18 Further details on both studies can be found in the Applicants "Post Hearing Note on Public Health and Evidence" submitted at Deadline 3. In summary, the evidence from the Government's advisors is that there is no link between health impacts and energy from waste plants. In addition, NPS EN-3 states that "*Where a proposed waste combustion generating station meets the requirements of WID [Waste Incineration Directive] and will not exceed the local air quality standards, the [Secretary of State] should not regard the proposed waste generating station as having adverse impacts on health.*" This is the case here.

³⁰ Ghosh RE, Freni Sterrantino A, Douglas P, Parkes B, Fecht D, de Hoogh K, Fuller G, Gulliver J, Font A, Smith RB, Blangiardo M, Elliott P, Toledano MB, Hansell AL. Fetal growth, stillbirth, infant mortality and other birth outcomes near UK municipal waste incinerators; retrospective population based cohort and case-control study. Environment International. 2018.

³¹ Freni-Sterrantino, A; Ghosh, RE; Fecht, D; Toledano, MB; Elliott, P; Hansell, AL; Blangiardo, M. Bayesian spatial modelling for quasi-experimental designs: An interrupted time series study of the opening of Municipal Waste Incinerators in relation to infant mortality and sex ratio. Environment International. 128 (2019) 106-115.

5.6.19 Furthermore, PHE were consulted throughout the application. PHE raised no concerns in their Relevant Representation (RR-067) and were satisfied with the methodology used to undertake the environmental assessment.

The economic cost to society

5.6.20 The respondent raises concerns over the long-term economic impact of waste incineration on society as a knock-on effect on negative public health outcomes. The respondent states the public health costs are likely to be in the region of £7,000,000 per annum. The Applicant strongly refutes this claim.

5.6.21 The Applicant notes that the commonly cited and most up to date guidance for calculating costs from industrial processes is DEFRA's 'Air Quality Damage Cost Guidance' (2019)³².

5.6.22 However, this guidance is not aimed at developers making an application for an individual project, rather the damage cost guidance is designed for policy appraisers, to guide in assessing the air quality impacts of a policy.

5.6.23 The Applicant has already set out in this response that there is no evidence linking health effects with energy from waste plants - and that evidence is from the Government's own advisors. In addition, the effects of any project must be weighed against its benefits, which, for the Proposed Development, include low carbon electricity generation (together with renewable generation and battery storage), moving waste up the waste hierarchy and reducing landfill, providing the ability for London to become self-sufficient and not incurring the carbon costs of transporting waste abroad, the good potential for waste heat for local residents and/or businesses, job creation, and a biodiversity net gain of a minimum of 10%. As part of REP, the Applicant is investing heavily in NOx abatement technology, the details of which is included within the Permitting and Technology Updates note - see enclosed. In any event, CRE is already providing a contribution to additional monitoring within the locality. In addition, the assessments reported in **Section 7.12 of Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** does not identify significant effects. The Applicant therefore considers that it is not appropriate to follow the damage costs approach as suggested by the respondent.

5.6.24 1The **Carbon Assessment (8.02.08, REP2-059)** shows that REP would reduce net greenhouse gas emissions, in the base case, by 137,000 tCO₂e. The central case BEIS short-term traded sector carbon value for policy appraisal for 2019³³ is £13.15, which suggests that the climate change benefits would be £1.8 million, outweighing any economic costs of air quality emissions. If the value for 2024 (the opening year) of £40.64 per tonne is used, the climate change benefits would be £5.5 million.

³² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770576/air-quality-damage-cost-guidance.pdf

³³ Updated short-term traded carbon values used for UK public policy appraisal, BEIS, April 2019

Environment, biodiversity and climate change

Need for the scheme

- 5.6.25 The respondent claims that the Proposed Development is an “*unnecessary development*” with no justifying evidence.
- 5.6.26 The need for the Proposed Development has been established in the **Project and its Benefits Report (PBR) (7.2, APP-103)** and is underpinned by the National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) (particularly Paragraph 2.5.2) which explicitly recognises that the recovery of energy from the combustion of waste is likely to play an increasingly important role meeting the UK's energy and renewable energy needs.
- 5.6.27 Despite the welcomed improvements gained in the prevention, re-use and recycling of waste in London, over two million tonnes of London's non-recycled waste is currently sent to landfill or shipped overseas. The **PBR (7.2, APP-103)** provides an assessment, using a range of scenarios based on different waste forecasts and recycling and recovery policies within London, which demonstrates that there is a clear and urgent need for additional residual waste management capacity, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will not be operational after 2025 (see **Annex A – the London Waste Strategy Assessment** of the **PBR (7.2, APP-103)**).

Carbon emissions

- 5.6.28 The respondent asserts that the Proposed Development is “detrimental to reducing emissions” and the proposed ERF component of REP will “emit far more fossil fuel derived CO₂ than gas powered stations producing the same amount of energy”.
- 5.6.29 In responding to similar concerns raised by other parties, notably UKWIN in their Relevant Representation (see RR-006), the Applicant prepared a detailed **Carbon Assessment (8.02.08, REP2-059)** to assess the carbon benefits of the REP ERF (submitted at Deadline 2 of the Examination). The assessment considered the sensitivity to changes in waste composition, changes in landfill gas recovery rates and changes in the source of displaced electricity.
- 5.6.30 As demonstrated in **Paragraph 5.1.2** of the **Carbon Assessment (8.02.08, REP2-059)**, the base case for the assessment shows that the benefit of REP is about 137,000 tonnes of CO₂-equivalent per year, or about 229 kg CO₂e per tonne of waste processed, compared to sending the same waste for disposal in a landfill site. **Paragraph 5.1.3** adds, that, if heat is exported, this benefit increases to 157,000 t CO₂e or 263 kg CO₂e per tonne of waste processed. Therefore, the **Carbon Assessment (8.02.08, REP2-059)** concludes that the ERF component of REP continues to have a benefit over landfill.

Planning Policy

- 5.6.31 The respondent states that the application appears to be at odds with the draft New London Plan and other Local Development Plans.
- 5.6.32 **Section 5** of the **Planning Statement (7.1, APP-102)** clearly demonstrates how the Proposed Development is compliant with regional planning policy and guidance (including the adopted London Plan, the draft New London Plan and the London Environment Strategy), in addition to other local development plans covering LBB, KCC and DBC. The policies and guidance documents identified in the Planning Statement have been taken into consideration throughout the preparation of the DCO Application and associated ES. In assessing compliance with regional and local policy, the Applicant has liaised with the GLA, the London Borough of Bexley, Dartford Borough Council and Kent County Council throughout the development of the DCO Application (see the **Consultation Report** and its associated appendices for further details (**5.1, APP-019 to APP-032**)).
- 5.6.33 Furthermore, the London Borough of Bexley, Dartford Borough Council and Kent County Council raise no concerns in relation to local policy compliance in their Local Impact Reports.

Impacts on biodiversity

- 5.6.34 The Applicant disagrees with the respondent's assertion that the Proposed Development would cause significant disturbance to habitats and biodiversity. The Applicant has summarised the findings of the biodiversity assessment undertaken to support the DCO Application, which is that no likely significant residual effects are predicted on species or habitats. This can be found in **Theme Reference TR-003** in **The Applicant's responses to Relevant Representations (8.02.03, REP2-054)**, submitted at Deadline 2

Air quality impacts on Biodiversity

- 5.6.35 **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** and **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** consider the potential air quality effects, arising from the operation of the Proposed Development, upon designated areas and habitats surrounding the REP site, including the Inner Thames Marshes Site of Special Scientific Interest (SSSI)/Rainham Marshes Local Nature reserve, and Ingrebourne Marshes SSSI.
- 5.6.36 Potential operational effects from REP, such as those from emissions, are assessed and reported in **Paragraphs 11.9.21 - 11.9.37** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** and **Table 7.37** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**. Emissions of nitrogen from the Anaerobic Digestion Plant could affect a small area of the Crossness LNR, however habitats in this area are not of high botanical diversity and predicted effects through nitrogen deposition are assessed as not significant. This conclusion has been agreed with Natural England, as set out in **Statement of**

Common Ground between the Applicant and Natural England (8.01.05, REP2-051), submitted at Examination Deadline 2.

5.6.37 Similarly, potential effects from construction dust have been assessed and are reported in **Paragraphs 7.9.1-7.9.11** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**. It is anticipated that dust will be controlled through standard mitigation measures described in the **Outline Code of Construction Practice (CoCP) (7.5, Rev 2)**, as submitted at Deadline 3). Measures include wheel washing, damping of stockpiles and sheeting materials, adherence to guidance such as the London Mayor's Supplementary Planning Guidance (SPG) on controlling dust, recording and making available a log of any complaints and covering of vehicles entering and leaving the site. The **CoCP** is secured via **Requirement 11** at **Schedule 2** to the **draft Development Consent Order (3.1, Rev 2)**, submitted at Deadline 3), which requires that the final CoCP submitted to and approved by the local authority must be in substantial accordance with the **Outline CoCP** submitted with the application. This conclusion has also been agreed with Natural England, as set out in the **Statement of Common Ground** between the Applicant and Natural England (8.01.05, REP2-051), submitted at Examination Deadline 2.

5.6.38 Further detail is provided in the **Applicant's Response to Relevant Representations** relating to biodiversity issues (TR-003) submitted at Deadline 2 (8.02.03, REP2-054).

Water quality and biodiversity impacts

5.6.39 No likely significant effects on water resources, including contamination, transfer of non-native species and sedimentation, are anticipated as a result of construction of the Proposed Development. **Paragraph 12.13.2** of **Chapter 12 Hydrology, Flood Risk and Water Resources** of the **ES (6.1, REP2-025)** confirms that any effects would be controlled by embedded mitigation measures such that residual effects would be negligible. Relevant embedded mitigation measures are reported in **Paragraph 12.8.2** of **Chapter 12 Hydrology, Flood Risk and Water Resources** of the **ES (6.1, REP2-025)**.

5.6.40 In addition, no likely significant effects on water vole populations are anticipated. **Paragraph 4.7.3** of the **Outline CoCP (7.5, Rev 2)**, submitted at Deadline 3), and **Paragraph 11.9.15** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** state that any potential direct effects on water voles during construction of REP would be avoided through ensuring a 5m offset of all construction work from ditches which support water vole. The CoCP is secured via **Requirement 11** at **Schedule 2** to the **dDCO (3.1, Rev 2)**, submitted at Deadline 3), which requires that the final CoCP submitted to and approved by the local authority must be in substantial accordance with the Outline CoCP submitted with the application.

Biodiversity Offsetting

5.6.41 **The Biodiversity Accounting Report (8.02.09, REP2-060)**, submitted at Deadline 2, takes into account the potential effects to Crossness Local Nature

Riverside Energy Park

Applicant's responses to Written Representations

Reserve (LNR), Erith Marshes Site of Importance for Nature Conservation (SINC), the River Cray Public Open Space and SINC, and the Dartford Marshes Local Wildlife Site (LWS). The biodiversity metric approach relies on identifying the change in biodiversity value arising from the Proposed Development. This provides certainty around the likely nature and scale of the off-set that needs to be secured by the Applicant to address the effects associated with loss of habitat on site and achieve the commitment to 10% biodiversity gain. The Applicant is working with the Environment Bank to identify options for off-setting which will be discussed and agreed with stakeholders and consultees.

Impact on Recycling Rates

5.6.42 The Applicant has provided a response to the assertion that the Proposed Development has the potential to negatively affect recycling rates in **Theme Reference TR-013** in **The Applicant's responses to Relevant Representations (8.02.03, REP2-054)**, submitted at Deadline 2.

5.6.43 The respondent states that *"over the last five years recycling rates have stalled across the United Kingdom whilst government approved waste incineration has doubled"*. However, the respondent presents no evidence to justify or explain this claim that recycling rates have stalled, it is simply a position statement.

5.6.44 The Applicant wholly recognises, and welcomes, the achievement of higher recycling rates and has explicitly considered this outcome. REP will support, and is in compliance with, the waste hierarchy principles and make best use of the residual waste arising in London and the South East. Despite improvements in the prevention, re-use and recycling of waste, there will remain residual waste which should be diverted from landfill in accordance with the waste hierarchy. REP will provide a suitable alternative to help treat London's residual waste remaining after recyclable waste has been treated.

5.6.45 Furthermore, the ERF component of REP will not prevent recycling or hinder local recycling rates as recycling is a cheaper process for waste producers. Waste producers, thereby, have a financial imperative to maximise recycling where they can. This financial incentive is demonstrated in WRAP's Gate Fee Report 2018³⁴. Table 1 of WRAP's Gate Fee Report 2018 shows that the median gate fees at recycling and organic waste treatment facilities are significantly lower than gate fees at energy from waste and landfill facilities. As such, it is to the local Borough's financial advantage to recycle over recovery. Thus, the ERF component of REP will support the drive to move waste further up the waste hierarchy.

5.6.46 REP will also include an Anaerobic Digestion facility which will accept green and food waste. Anaerobic digestion has been recognised as one of the best

³⁴

http://www.wrap.org.uk/sites/files/wrap/WRAP%20Gate%20Fees%202018_exec+extended%20summary%20report_FINAL.pdf (accessed 30/05/19)

Riverside Energy Park

Applicant's responses to Written Representations

methods for food recycling and will therefore help contribute towards the target of zero biodegradable or recyclable waste being sent to landfill. It will also help contribute towards the Mayor's 2030 municipal recycling targets and provide an 'in borough' Anaerobic Digestion solution for the London Borough of Bexley.

5.6.47 In summary, both the ERF and Anaerobic Digestion facility within REP will support the waste hierarchy in London, providing for both food and green wastes and residual wastes arising in the locality, supporting the goals of NPS EN-1 alongside the Mayor's recycling targets and policy aspirations. Further details are also provided in **the PBR (7.2, APP-103)** and the **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)**.

Concerns for Rainham Constituents

5.6.48 The Applicant regrets that the respondent considers, without evidence, that the Proposed Development would negatively affect local residents in Rainham and considers the need to organise a petition against the Proposed Development. However, the Applicant considers that it has been demonstrated, through the DCO Application and accompanying documents and studies, the clear need for the Proposed Development, and that the location is highly suitable and can be delivered in an appropriately sensitive way to adequately manage any potential environmental effects. Further information on potential environmental impacts is also included in the **Applicant's Responses to Relevant Representations (8.02.03, REP2-054)** (see **Themes TR-001 to TR-0025**).

5.6.49 **Section 12.1** of the **Statement of Reasons (4.1, REP2-008)** sets out a number of reasons relating to the suitability and advantages of the REP site. These include:

- Optimising existing river transport infrastructure that is already established for waste & material delivery and export;
- Optimising a location that is already in a low carbon/renewable and waste management use (including the ability to share infrastructure with RRRF, thereby reducing the footprint of REP);
- Use of a brownfield site that is adequate to accommodate REP;
- Proximity to the necessary electrical connection;
- Providing good potential for district heating; and
- Location is such that there are no significant adverse effects on the sensitive residential and environmental receptors.

5.6.50 The Applicant considers that the benefits of the REP site, together with the fact that 84 % of the total of the REP site is in the freehold ownership of the Applicant/Cory Group (with an additional 9% being leased), makes the REP

Riverside Energy Park

Applicant's responses to Written Representations

site the right location for REP. In particular the optimisation of existing infrastructure (river infrastructure and the infrastructure at RRRF), and the proximity to the heat network demand, means that the Applicant has chosen an ideal site for REP in terms of minimising environmental effects. Further information regarding the location of REP is included in **Paragraph 5.2.6 of Chapter 5 Alternatives Considered** of the **ES (6.1, REP2-015)**.

5.6.51 Whilst REP is being promoted to take waste from within London, there is no justification for it to be limited to the capital, especially given its location and the river logistics network that can support it, as set out above. As noted in the **PBR (7.2, APP-103)**, there is an identified need for approximately 2 million tonnes of residual waste management capacity across the waste planning authorities adjacent to London. The ERF component of REP will be a suitable and reliable alternative to help treat London and the South East's waste which remains after recycling, helping to ensure that less waste is sent to landfill or shipped overseas. The need for the Proposed Development is discussed in further detail in the **Applicant's Responses to Relevant Representations (8.02.03, REP2-054)** (see Theme TR-003).

5.6.52 Although not the primary basis for determining DCO applications, policy contained within the local development plans are specific about the key features sought for sites proposed as energy generating and waste management projects. The reasons for the location of REP, as set out in **Section 12.1 of the Statement of Reasons (4.1, REP2-008)**, are in compliance with the local development plan for the site, notably Policy 7.26 of the adopted London Plan, Policy SI9 and SI15 of the Draft London Plan and Policy CS15 of LBB's Core Strategy through the use of the River Thames. As such, the Applicant disagrees with the respondent's assertions that the Proposed Development "*will conflict with the Mayor's London Plan and local environmental targets*". Furthermore, the **London Waste Strategy Assessment (LWSA) of the Project and its Benefits Report** (see **Annex A of 7.2, APP-103**) has been undertaken using the data and policy aspirations from the development plan documents prepared by the GLA. The **LWSA (Annex A of 7.2, APP-103)** demonstrates that both adopted and draft London Plan policy, seeking to achieve increased recycling, can be delivered alongside REP.

5.6.53 In any event, National Policy Statements ("NPS") are the primary determination basis for DCO applications. NPS EN-1 and NPS EN-3 both establish an urgent and substantial need for new energy generation infrastructure, which includes energy from waste. The NPSs emphasise an expectation that industry will provide this capacity through private-led investment, such as REP. As demonstrated in **Sections 5.2 and 5.3 of the Planning Statement (7.1, APP-102)** and **the PBR (7.2, APP-103)**, REP conforms to the policy objectives of the two NPSs, well as regional and local planning policy and guidance.

5.6.54 Paragraph 4.1.3 of NPS EN-1 explains that the decision-maker will weigh up a proposal's contribution to meeting the need for energy infrastructure and wider benefits, against the potential adverse impacts of the proposal and measures

Riverside Energy Park

Applicant's responses to Written Representations

to avoid, reduce or compensate for any adverse impacts. Overall, the likely impacts of the Proposed Development have been minimised wherever practicable through specification, siting and design and, where significant residual impacts remain, mitigation has been incorporated into the **draft DCO (3.1, Rev 2)**, submitted at Deadline 3). Therefore, the benefits of the Proposed Development, notably the contribution to meeting the urgent national need for renewable/low carbon electricity supply and the demonstrated need for new waste infrastructure in South East England, outweigh the limited residual adverse impacts.

5.7 Rt Hon Teresa Pearce MP

Introduction

5.7.1 Teresa Pearce MP for Erith and Thamesmead raises a number of areas of concern with the Proposed Development which can be broadly summarised into the following categories:

- Site Location;
- Connection to National Grid;
- Crossness Local Nature Reserve;
- Mayors Draft London Plan Context;
- Air quality;
- Recycling;
- Combined heat and power;
- Consultation; and
- Employment.

5.7.2 These concerns are addressed in turn below, referring to specific paragraph numbers in the respondent's Written Representation as required.

Response

5.7.3 The comments from the respondent in Paragraphs 2-3 of their Written Representation regarding the industrial operations on the River Thames are noted. The Applicant agrees with the respondent that industry brings welcome employment to the area, as demonstrated by the Applicant's existing Riverside Resource Recovery Facility (RRRF) plant, which employs around 80 people.

5.7.4 The respondent's concerns regarding air quality are noted and are covered later in this report in the sub-section for 'Air Quality' at Paragraphs 5.7.49 – 5.7.64

Site Location

5.7.5 The Applicant acknowledges the respondent's statements at Paragraphs 6 and 7 of their Written Representation, which state that they can understand why the proposed site was chosen. As inferred by the respondent, the site is ideally suited for a development of this nature. The REP site, and parts of the Electrical Connection route, form part of the Belvedere Industrial Area which is designated as a Strategic Industrial Location (SIL) and Preferred Industrial Location (PIL) (see London Plan Policy 2.17). The site is also within the designated Bexley Opportunity Area.

Riverside Energy Park

Applicant's responses to Written Representations

5.7.6 The use of the site also accords with the London Plan which encourages new development to optimise the use of existing site infrastructure. Further information is also provided in the **Project and its Benefits Report (PBR) (7.2, APP-103)** and subsequent **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)** submitted for Deadline 2.

5.7.7 **Appendix A** to the **Statement of Reasons (4.1, REP2-008)** explains the benefits of the REP site, being:

- the Applicant's existing land ownership and ability for land assembly;
- the ability to optimise existing river transport infrastructure that is already established for waste and material delivery and export;
- the ability to optimise a location that is already in low carbon and waste management use (including the ability to share infrastructure with RRRF, thereby reducing the footprint of REP);
- the use of a brownfield site that is adequate to accommodate REP;
- proximity to the necessary electrical connection;
- the good potential for district heating;
- the location is such that there are no significant adverse effects on the sensitive residential and environmental receptors; and
- the site is promoted in policy.

5.7.8 Given the key advantages of the REP site and clear policy compliance, the Applicant's consideration of alternatives focused on alternative site layouts and Electrical Connection options. This is entirely in accordance with the Overarching National Policy Statement for Energy (NPS EN-1) which states at Paragraph 4.4.1 that:

"...this NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option.

However: applicants are obliged to include in their ES, as a matter of fact, information about the main alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social, and economic effects and including, where relevant, technical and commercial feasibility".

Connection to National Grid

5.7.9 Following extensive engagement with UKPN that stretches back to before the DCO Application was submitted, the Applicant, at Deadline 2, reduced the Electrical Connection route options to a single route - this can be viewed on the **Land Plans (2.1, REP2-003)**, **Works Plans (2.2, REP2-004)** and explained in the **Electrical Connection Progress Report (8.02.07, REP2-**

058). The final Electrical Connection route is as follows: The connection leaves the REP site and is routed south along Norman Road to the junction with the A206. It then travels south east and south along the A2016 and A206 before heading east along the A206 – University Way and south east along Thames Road. It then follows Joyce Green Lane, a gravel path routed off the public highway and a busway routed east, and finally Rennie Drive and in to Littlebrook Substation. This route has been confirmed by UKPN as both viable and deliverable. The Applicant is in the process of making an application for a grid connection offer to UK Power Networks (UKPN).

5.7.10 The process of identifying a single route has been conducted in line with UKPN's obligations under the Electricity Act 1989, requiring UKPN to have regard to social, economical and environmental considerations, and in accordance with the relevant National Policy Statements. Consideration of potential risks to delivery of a single route has been informed by a programme of desk study, non-intrusive investigations and subsequent intrusive investigations carried out by UKPN. These investigations have confirmed that the selected route (as confirmed at Deadline 2) is viable and can be delivered by UKPN.

5.7.11 The respondent's concerns at Paragraphs 11-15 of their Written Representation relate to; the importance of the A2016 / A206 corridor to businesses, buses, local residents and employees; disruption to those businesses and residents; potential pinch point stress at peak times and the potential for congestion and lane closures on the A2016 during construction of the Electrical Connection. These points are noted and addressed below.

Strategic importance of A2016 / A206 corridor and choice of Electrical Connection route

5.7.12 The Applicant is cognisant of the important nature of the A2016 / A206 corridor for local and strategic movement by all forms of vehicle and non-motorised travel. The Applicant is further cognisant that the corridor experiences peak period congestion, particularly during the morning. In deciding on the most suitable route for the Electrical Connection, however, the Applicant has taken a balanced judgement reflecting all environmental aspects. For that reason, the route of the A2016 / A206 has been selected for the Electrical Connection.

Level of investment in the local transport infrastructure

5.7.13 At Paragraph 11 of their Written Response, the respondent comments on the level of investment in the local transport infrastructure. The Applicant has been advised, during scoping, by the local authorities that there are no network changes that should be considered within the Applicant's appraisals and has been advised of a number of local developments which are planned to be delivered in the near future. On that basis, robust future year assessments have been included with **Chapter 6 Transport** of the **ES (6.1, REP2-017)** and **Appendix B.1**, the **Transport Assessment** of the **ES (6.3, APP-066)**.

Riverside Energy Park

Applicant's responses to Written Representations

Potential effects from delay, congestion and lane closures, including 'pinch points'

- 5.7.14 The assessment criteria presented in **Section 6.5, Chapter 6 Transport** of the **ES (6.1, REP2-017)** included, amongst others: severance, pedestrian delay and amenity, fear and intimidation, and accidents and road safety. These cover a number of social impacts associated with increases in road traffic on relevant roads. The study area considered in **Section 6.5, Chapter 6 Transport** of the **ES (6.1, REP2-017)** included links such as the A206 and A2016 corridor (given its local importance to businesses and residents) and the local roads along the corridor of the Electrical Connection such as Church Manorway, Lower Road, West Street and Erith High Street.
- 5.7.15 The assessment of potential construction traffic effects arising from the installation of the Electrical Connection, including to local businesses and residents) is presented in **Paragraphs 6.9.61 – 6.9.89** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)**.
- 5.7.16 **Paragraph 6.9.77** of **Chapter 6 Transport** of the **ES (6.1, REP2-017)** states that the road works associated with the construction of the Electrical Connection (including potential for congestion and lane closures on the A206 and A2016) would induce a level of driver delay resulting from temporary traffic management put in place at the active worksite. The distance over which lane closures would occur would be up to 300m, unless agreed otherwise with the appropriate highway authority. This would ensure drivers do not experience delays greater than would be typically expected at road works of this type.
- 5.7.17 The impact on driver delay would therefore be judged to be Minor adverse, which is Not Significant.
- 5.7.18 Measures to mitigate effects arising from the construction of the Electrical Connection would be detailed as part of the final Construction Traffic Management Plan (CTMP) or CTMPs associated with the works. The CTMP/CTMPs would be in accordance with the **Outline CTMP (Appendix L** of **Appendix B.1 Transport Assessment** to the **ES (6.3, Rev 2)**. The **Outline CTMP** comprises complementary elements of logistics planning but also incorporates the available information relating to how workforce traffic would be managed at each stage of construction, helping to minimise the potential effects arising during the construction period. The CTMP is secured via **Requirement 13** at **Schedule 2** to the **draft Development Consent Order (dDCO) (3.1, Rev 2)** submitted at Deadline 3. With the inclusion of such mitigation measures, effects arising from the installation of the Electrical Connection would be Not Significant.
- 5.7.19 Supplementary evidence has also been provided on the predicted effects on the road network during the peak construction period of the construction of the Electrical Connection on the selected corridor (i.e. pinch point stress as referenced in Paragraph 11 of the respondent's written representation). Those roads include A2016 Bronze Age Way, and A206 Queens Road and

Northend Road. This is set out in technical note **TN013 Traffic flows on A2016 Bronze Age Way and A206 Queens Road/Northend Road - Interface with Electrical Connection Construction Works**, submitted at Deadline 2 (**Appendix F to the Applicant's Response to Relevant Representations, 8.02.03, REP2-054**) which sets out information and analysis in relation to:

- Traffic flow characteristics on the A2016 Bronze Age Way and A206 Queens Road corridor, in each direction;
- Theoretical link capacity on the A2016 Bronze Age Way and A206 Queens Road / Northend Road;
- Queueing and congestion at key points on the A2016 Bronze Age Way and A206 Queens Road / Northend Road corridor; and
- Flow characteristics at Erith Roundabout (A2016 Bronze Age Way junction with A206 Bexley Road) and potential implications of the construction of the Electrical Connection for REP on the operation of the junction.

5.7.20 The technical note reviews the effects of traffic movements generated by the construction of REP at the peak construction period (predicted to be month 13). It sets out the Applicant's commitment to cap on-site workforce parking at 275 spaces – halving the 552 space quantum considered in **Chapter 6 Transport** of the **ES (6.1, REP2-017)** and **Appendix B.1, the Transport Assessment** of the **ES (6.3, APP-066)**. That commitment, coupled with the construction working day being between 07:00 and 19:00, as set out in **Paragraph 3.2.1 of the Outline Code of Construction Practice (7.5, Rev 2)**, ensures that workforce related travel would have no more than a Negligible effect on the operation of the local road network.

5.7.21 Where the construction area crosses side roads, the Contractor will set out in the final CTMP the method of temporary traffic management. The CTMP will be agreed with the appropriate highway authority, in consultation with TfL for roads within the London Borough of Bexley, and is secured by **Requirement 13** of the **dDCO (3.1, Rev 2)** Submitted at Deadline 3. The method of temporary traffic management could include: constructing the associated trench or trenchless corridor alongside the main carriageway, such as at Erith Station approach; and construction focused on off-peak periods. These measures would seek to minimise the temporary effects on the road network.

5.7.22 As set out in **Chapter 3 Project and Site Description** of the **ES (6.3, REP2-013)**, the distance over which lane closures would occur is likely to be up to 300m, unless agreed otherwise with the appropriate highway authority. This would ensure drivers do not experience delays greater than would be typically expected at road works of this type. **Chapter 3 Project and Site Description** of the **ES (6.3, REP2-013)**, considers two programme options for the construction of the Electrical Connection (i.e. 15 month and 24 month programme). Under the 15 month programme it has been assumed that the appointed contractor might work in two locations concurrently. That scenario

Riverside Energy Park

Applicant's responses to Written Representations

would be agreed with the appropriate highway authority, reflecting the implications of concurrent working on the transport network.

5.7.23 The potential environmental effects of the Electrical Connection have been assessed in each of the 'topic' chapters of the **ES (Sections 6.9 (6.1, Rev 1, REP2-017), 7.9 (6.1, Rev 1, REP2-019), 8.9 (6.1, APP-045), 9.9 (6.1, Rev 1, REP2-021), 10.9 (6.1, APP-047), 11.9 (6.1, Rev 1, REP2-023), 12.9 (6.1, Rev 1, REP2-025), 13.9 (6.1, Rev 1, REP2-027) and 14.9 (6.1, Rev 1, REP2-029))** which all conclude that there would be no likely significant effects arising from the construction, operation and decommissioning of the Electrical Connection.

Tunnel under the Thames

5.7.24 The **Electrical Connection Progress Report (8.02.07 REP2-058)**, comprising part of the submission for Deadline 2, includes additional commentary to that provided in **Paragraphs 5.5.2 and 5.5.3 of Chapter 5 Alternatives Considered** of the **ES (6.1, REP2-015)**.

5.7.25 The report confirms that the use of the existing utilities tunnel under the River Thames to a Barking substation connection was one of the route options considered at the EIA scoping stage. The existing Riverside Resource Recovery Facility (RRRF) is connected to Barking substation via this route.

5.7.26 UKPN explored both the potential to use the existing RRRF cables as well as installing additional cables, finding that neither option was technically feasible due to potential overheating of cables within the existing tunnel and lack of available space for additional new cables. Seeking a cable connection to Barking substation would therefore have required the construction of a new and separate utilities cable tunnel under the River Thames in excess of 500m in length with all the associated environmental effects.

5.7.27 UKPN therefore determined, given the very significant cost and engineering complexity of delivering a new river tunnel, that an entirely land and highways based route to Littlebrook represented an economic and efficient solution to connect Riverside Energy Park (REP). This solution is in line with UKPN's statutory obligations under the Electricity Act 1989 and as set out in Paragraph 3.7.10 of NPS EN-1:

"The [Secretary of State] should consider that the need for any given proposed new connection or reinforcement has been demonstrated if it represents an efficient and economical means of connecting a new generating station to the transmission or distribution network"

and 2.2.2 of EN-5:

"In neither circumstance [being connected to the location of a generating station or the need for strategic network reinforcement] is it necessarily the case that the connection between the beginning and end points should be via the most direct route (indeed this may be practically impossible), as the

Riverside Energy Park

Applicant's responses to Written Representations

applicant will need to take a number of factors, including engineering and environmental aspects, into account."

5.7.28 Whilst a connection to Barking via a new Thames tunnel may have been viable in engineering terms, its cost, complexity and associated environmental effects weighed against it in favour of an economic and efficient connection to Littlebrook, and the latter was therefore included in the submitted application for Development Consent.

Crossness Nature Reserve

5.7.29 The respondent's concerns, at Paragraph 23 of their Written Representation, regarding potential construction effects arising from the Proposed Development on Crossness Nature Reserve (particularly birds, mammals and invertebrates) are noted.

Potential for direct effects

5.7.30 The footprint of the REP Site, Main Temporary Construction Compound and Electrical Connection do not directly affect the Crossness LNR. **Table 1** of the **Outline Biodiversity and Landscape Mitigation Strategy (OBLMS) (7.6, Rev 1)** submitted at Deadline 3 sets out measures which will be used during construction to avoid or mitigate potential indirect effects such as those relating to noise, visual disturbance, dust and pollution. The **OBLMS** is secured via **Requirement 5** at **Schedule 2** to the **dDCO (3.1, Rev 2)**, submitted at Deadline 3, which requires that the final **Biodiversity and Landscape Mitigation Strategy (BLMS)**, submitted to and approved by the local authority, be in substantial accordance with the OBLMS.

5.7.31 The potential effects of different Electrical Connection route options have been assessed and are reported in **Paragraphs 11.9.38-11.9.60, Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**. The Applicant can confirm that, following further technical design work and investigations carried out by the Applicant and UKPN, the Electricity Connection route option (part of route option 1A) proposed through Crossness LNR is no longer being considered. The removal of the Electrical Connection route option through the Crossness LNR is confirmed in the Applicant's submission to the Examination at Deadline 2 and the updated **Land Plans (2.1, REP2-003)** and **Works Plans (2.2, REP2-004)** submitted into the Examination at Deadline 2. Therefore, potential effects reported in **Paragraphs 11.9.41 and 11.9.42, Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** which relate to the Crossness LNR should no longer be considered.

Potential for indirect effects

5.7.32 It is recognised that there is the potential for indirect effects on Crossness LNR arising from the construction of REP from e.g. traffic movements, noise and lighting as set out in **Paragraph 11.9.2 of Chapter 11 Terrestrial Biodiversity**, of the **ES (6.1, REP2-023)**. The **OBLMS (7.6, Rev 1)** Submitted at Deadline 3 sets out protection and appropriate working measures which will

be employed during construction and decommissioning to protect the habitats and therefore effects are assessed as being Not Significant.

5.7.33 **Tables 1 and 3** of the **OBLMS (7.6, Rev 1)** Submitted at Deadline 3 establish the principles and measures to minimise effects to designated areas (through consideration of noise, lighting, pollution, fencing off working areas and installation of silt fencing), habitats (through financial contributions to the Environment Bank) and species arising from potential spillages or leaks during construction. The OBLMS is secured via **Requirement 5** at **Schedule 2** to the **dDCO (3.1, Rev 2)**, Submitted at Deadline 3, which requires that the final BLMS submitted to and approved by the local authority is in substantially accordance with the OBLMS submitted with the application.

5.7.34 Potential effects arising from noise and light would have the potential to affect species such as breeding birds and foraging or commuting bats, as set out in **Paragraphs 11.9.7** and **11.9.10-11.9.11** of the **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**. After consideration of mitigation measures set out in the **OBLMS** and **Paragraph 4.4.3** of the **Outline CoCP (7.5, Rev 2)**, including working in line with the recommendations of BS 5228 (for example, quiet working methods and acoustic screening), and **Paragraph 4.7.3** of the **Outline CoCP (7.5, Rev 2)**, including appropriate working measures to be adopted to protect habitats and species from lighting, no significant effects from lighting or noise are anticipated to arise for either habitats or species, as set out in **Paragraphs 11.9.7** and **11.9.10-11.9.11** of **Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**. The CoCP is secured via **Requirement 11** at **Schedule 2** to the **dDCO (3.1, Rev 2)**, which requires that the final CoCP is submitted to and approved by the relevant planning authority is in substantial accordance with the **Outline CoCP (7.5, Rev 2)** submitted with the application.

5.7.35 **Chapter 11 Terrestrial Biodiversity, Paragraph 11.9.8** of the **ES (6.1, REP2-023)** reports that suitable alternative habitat is present adjacent to breeding bird habitat and standard measures to avoid adverse construction effects would be adopted (such as vegetation clearance outside of the nesting season, or inspection of vegetation to be cleared, use of screens providing physical barriers, good site construction practice, avoidance of noisy activities when passage and wintering birds are present), are included in **Tables 1** and **3** of the **OBLMS (7.6, Rep 1)**.

5.7.36 **Paragraph 11.9.11 of Chapter 11 Terrestrial Biodiversity**, of the **ES (6.1, REP2-023)** reports that, given the abundance of alternative habitats in the surrounding area and the temporary nature of the potential effects, effects on breeding birds during the construction phase are Not Significant.

5.7.37 Effects from noise and visual disturbance could occur to wintering birds using the intertidal areas adjacent to the REP site during construction. However, these areas were surveyed and found to be unexceptional in terms of numbers and the variety of water birds supported. There was no evidence that these areas are of particular value over and above similar sections of

Riverside Energy Park

Applicant's responses to Written Representations

shoreline in the area. The potential adverse noise effects on wintering birds in these areas during construction were assessed and are reported in **Paragraph 11.9.19 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)** as being Not Significant.

5.7.38 No likely significant effects to light sensitive species from lighting impacts have been identified during the construction stage (**Paragraph 11.9.7 of Chapter 11 Terrestrial Biodiversity** of the **ES (6.1, REP2-023)**). Given the Proposed Development is not located near to key bird migration areas (such as coastal headlands), along with existing background light levels in the area, construction lighting is unlikely to affect the migration of birds. **Paragraph 4.11** of the **Outline CoCP (7.5, Rev 2)** includes measures to control the potential effects arising from construction lighting.

Mayor's Draft London Plan

5.7.39 The Applicant acknowledges the statements made in Paragraphs 21, 25 and 26 of the respondent's Written Representation that the area surrounding the REP site is recognised in both the existing and draft London Plans as an Opportunity Area and that this area should be for both residential and non-residential development. This is re-iterated in **Paragraphs 4.5.3-4.5.5** of the **Planning Statement (7.1, APP-105)**.

5.7.40 Like the respondent, the Applicant acknowledges that development in Opportunity Areas should contribute to regeneration objectives and tackle social, environmental and economic barriers. To this end, the Proposed Development would provide the following benefits:

- A national and local policy-supported supply of low carbon/renewable energy, that will help to deliver climate change priorities, including sustainable waste management;
- Potential district heat network opportunities which would support development in opportunity areas through providing a reliable source of sustainable heat;
- Opportunities for local employment during both the construction and operational phases of the Proposed Development which would further support growth in opportunity areas; and
- Knock-on socio-economic benefits to potential opportunity areas from construction spend.

5.7.41 In terms of potential Combined Heat and Power (CHP) opportunities, the Applicant has engaged with major local residential and commercial developers to the west of the REP site in Thamesmead which could offer the potential for REP to supply heat to a district heat network. Through this engagement, an important local developer (Peabody) has written to support the commitment to progress a district heat network (See **Appendix A** of the **CHP Supplementary Report (5.4.1, REP2-012)**). In conjunction with partners, Peabody has

Riverside Energy Park

Applicant's responses to Written Representations

identified Thamesmead as a key strategic growth area, aiming to develop 20,000 new homes over the next 30 years. The Bexley District Heating Partnership Board (of which Peabody is a member) was established to realise the opportunity for CHP offtake. As a member of the Partnership Board, Peabody supports the Proposed Development which would contribute to the collective goal of developing a heat network in the area.

5.7.42 Further information is included in the **Project and its Benefits Report (PBR) (7.2, APP-103)** and subsequent **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)** submitted for Deadline 2.

5.7.43 The suitability of the REP site has already been explored in this response and is also acknowledged in Paragraphs 6 and 7 of the respondent's Written Representation.

5.7.44 The results of the air quality assessment submitted to accompany the DCO Application are summarised in **Table 7.34 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** and isopleths of dispersion are shown in **ES Figures 7.4 to 7.9 of the ES (6.2, APP-056)** and the updated **Figure 7.5 (6.2, Rev 2**, as submitted at Deadline 3). These both demonstrate that operation of the Proposed Development would give rise to negligible effects on the areas surrounding the REP site, including opportunity areas and potential areas for future residential development. **Appendix A to the Applicant's response to the Local Impact Report by London Borough of Havering (LBH) (8.02.18)**, submitted at Deadline 3, contains figures which detail the assessment isopleths maps against the London Riverside Opportunity Area, LBH Site Specific Allocations (2008), LBB Site Specific Allocations (2010) and LBB Unitary Development Plan (2004).

5.7.45 Furthermore, although it is recognised that the wider area around the REP site could be subject to residential development (e.g. further development identified in the London Borough of Bexley's Growth Strategy for Belvedere and Thamesmead Opportunity Area) , the REP site itself and immediate surrounding areas are either industrial in nature, strategically designated for industry or comprise Metropolitan Open Land (MOL). Therefore, these areas are unlikely to be suitable for residential development and more likely to be used to for appropriately sited industrial development.

5.7.46 The wider surroundings of the REP site, including the aforementioned Opportunity Areas also provide an extensive amount of brownfield land suitable for development. As much of the immediate surrounding area of REP comprises a network of MOL, SINCS and the Crossness LNR, it is likely that future development would be directed away from these areas to best utilise existing land and limit any potential effects on greenfield land and designated.

5.7.47 There is no evidence that the Proposed Development would deter people from living in the areas described. Indeed, there is no demonstrable link between siting of ERF plants and desirability of places to live. The Applicant therefore does not agree that the addition of REP would have a detrimental effect on future residential development planned for the area. The ES has

Riverside Energy Park

Applicant's responses to Written Representations

demonstrated that any residual effects from the Proposed Development would be manageable and acceptable.

5.7.48 As demonstrated in the **Combined Heat and Power (CHP) Assessment (5.4, APP-035)** and the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**, for a viable CHP and district heating opportunity to exist, it must be in close proximity to recipients. Therefore, rather than having a detrimental effect on future residential development, REP provides potential benefits to any future development in close proximity.

Air Quality

5.7.49 The comments in Paragraphs 3 and 4 of the Respondent's Written Representation are noted. The Applicant's existing RRRF plant operates within strict air quality limits bound by its Environmental Permit (EP) issued and regulated by the Environment Agency, meaning that it is not permitted by its EP to emit harmful levels of pollutants. To date, the RRRF facility has received no complaints relating to air quality or odour issues and the Applicant is proud of its operational record since operations commenced in 2011. The respondent would be welcome to visit the RRRF plant to view the operations and discuss any matters or concerns direct with the Applicant.

5.7.50 As with RRRF, the Proposed Development would be bound by operational limits on emissions set by an Environmental Permit.

5.7.51 **Paragraph 7.13.2 of Chapter 7 Air Quality of the ES (6.1, REP2-019)** reports that there will be no likely significant air quality effects on human or ecological receptors as a result of the operation of the Proposed Development, when considered either in isolation or in combination with other planned developments. This assessment includes receptors in the respondent's constituency as well as the north side of the Thames. **ES Figures 7.4 to 7.9 of the ES (6.2, APP-056)** and the updated **Figure 7.5 (6.2, Rev 2)**, as submitted at Deadline 3) show the likely dispersion of emissions from the ERF and demonstrate that, at all locations, potential effects would be negligible.

5.7.52 An **Environmental Permit and Air Quality Note (8.02.06, REP2-057)** providing an update on the status of the Environmental Permit Application and an update on the abatement technology proposed for the ERF element of Riverside Energy Park (REP) set out in the Environmental Permit (EP) application, has also been prepared and submitted at Deadline 2. This note confirms the Applicant's intention to use Selective Catalytic Reduction (SCR) technology which would reduce NO_x levels significantly compared to the levels reported in the **Chapter 7 Air Quality of the ES (6.1, REP2-019)**. This would be secured by the Environment Agency in the Environmental Permit.

5.7.53 The concerns raised in Paragraphs 27-34 of the respondent's Written Representation are noted. The Applicant can confirm that the key aims of Draft London Policy SI1 would be met by the Proposed Development as per **Table 7.9 of Chapter 7 Air Quality of the ES (6.1, REP2-019)**.

- 5.7.54 The results of the Air Quality modelling presented in **Table 7.34** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** show that effects from REP on air quality would be Not Significant at all modelled locations. The dispersion of emissions is shown in **ES Figures 7.4 to 7.9** of the **ES (6.2, APP-056)** and the updated **Figure 7.5 (6.2, Rev 2**, as submitted at Deadline 3). The Applicant can confirm that, based on these results, the Proposed Development would not create new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits. Nor would the Proposed Development create unacceptable risks of high levels of exposure to poor air quality or directly reduce air quality benefits that result from the Mayor's borough's activities to improve air quality.
- 5.7.55 Whilst it is acknowledged that the Proposed Development would create a new source of emissions, there is a commitment to achieving the best possible efficiency and air quality standards.
- 5.7.56 The results of the Air Quality modelling presented in **Chapter 7 Air Quality** of the **ES (6.1, Rev 1, REP2-019)** show that effects from REP on air quality would be Not Significant at all modelled locations. Further to this, the **Environmental Permit and Air Quality Note (8.02.06, REP2-057)** submitted at Deadline 2 confirms the Applicant's intention to use modern state of the art abatement technology which would reduce NO_x levels significantly compared to the levels reported in the ES. This would be secured in the Environment Permit.
- 5.7.57 Additionally, it is understood that road transport is the biggest source of the emissions damaging health in London³⁵. As a river-only logistics organisation, and having invested heavily in river-based infrastructure at RRRF, the Applicant is subject to a strong commercial imperative to maximise use of river transport.
- 5.7.58 To this end, the Applicant intends to use of the river and its existing infrastructure and fleet of barges to operate REP. London Plan Policy 7.26 and Draft London Plan Policy SI15 both promote the use of waterways for transporting bulk materials via waterways.
- 5.7.59 The **dDCO (3.1, Rev 2)** includes a requirement, **Requirement 14** in **Schedule 2**, which restricts the number of two-way vehicle movements made by heavy commercial vehicles delivering waste to the ERF and the Anaerobic Digester during the operational period, to a maximum of 90 vehicles in and 90 vehicles out per day, save in circumstances where there is a jetty outage.
- 5.7.60 In response to Paragraph 30 of the Written Representation, the Applicant can confirm that they are responding separately to concerns raised by the GLA. However, the approach taken to modelling potential effects from emissions from the Proposed Development is acceptable and based on best practice (e.g. ADMS-Roads dispersion model (v4.1.1) and ADMS 5. Given the different

³⁵ <https://tfl.gov.uk/corporate/publications-and-reports/ultra-low-emission-zone#on-this-page-0>

Riverside Energy Park

Applicant's responses to Written Representations

dispersion characteristics of different emissions sources, the most appropriate method is to model the sources separately and sum the results to give a combined effect.

5.7.61 The contour plots provided in **ES Figures 7.4 to 7.9** of the **ES (6.2, APP-056)** and the updated **Figure 7.5 (6.2, Rev 2)**, as submitted at Deadline 3 demonstrate that the emissions from RRRF/REP and the biogas combustion do not interact due to differences in relative stack heights.

5.7.62 As stated in **Section 7.5** of **Chapter 7 Air Quality** of the **ES (6.1, Rev 1, REP2-019)** the impacts from REP have been added to road transport emissions at receptors that will be impacted by both and no likely significant effects have been predicted.

5.7.63 The impact of cumulative developments have been considered where there is the potential for emissions from REP to interact with impacts from transport associated with the cumulative development. The cumulative assessment **Section 6.10** of **Chapter 6 Transport of the ES (6.1, REP2-017)** has not identified any significant cumulative effects.

5.7.64 The potential effects of the Proposed Development on air quality would be Not Significant. The methodology and rationale behind the assessment levels and what is deemed significant are set out in **Section 7.5** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**. They are based on nationally and internationally recognised standards. As summarised in **Table 7.34** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** levels of all emissions are below quoted assessment levels, such that there would be no likely significant effects from either the Proposed Development in isolation, or cumulatively with other developments. Reference made by the respondent to the London Assembly Environmental Committee are noted and the Applicant has previously responded on this point in **Table 7.9** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)** by stating that the effects of all pollutants modelled for REP and reported in the ES (including NO_x, chlorine, arsenic and mercury) are Not Significant. As stated above, the concentrations and emissions profiles of these pollutants are summarised in **Table 7.34** of **Chapter 7 Air Quality** of the **ES (6.1, REP2-019)**. Levels of all emissions are below quoted assessment levels, such that there would be no likely significant effects from either the Proposed Development in isolation, or cumulatively with other developments.

Recycling

5.7.65 The comments made at Paragraphs 35-36 of the respondent's Written Representation are noted. REP supports both regional and local waste management needs. In spite of the welcome improvements made in the prevention, re-use and recycling of waste within London, over two million tonnes of non-recyclable waste is currently sent to landfill or shipped overseas. As demonstrated in **The Project and its Benefits Report (PBR) (7.2, APP-103)**, London has a clear waste infrastructure capacity gap which urgently needs investment, particularly as only 2 out of the 11 active landfill sites where London's residual waste is currently sent for disposal will be

Riverside Energy Park

Applicant's responses to Written Representations

operational after 2025. REP will help London transition to a low-carbon and self-sufficient city providing an appropriate alternative higher in the waste hierarchy to treat London's waste which remains after recycling. This provides a substantial and reliable alternative to waste being sent to landfill or shipped overseas.

5.7.66 The ERF component of REP will not prevent recycling or hinder local recycling rates. Data gathered by WRAP and published in **Table 1** in its Gate Fee Report 2018³⁶ clearly shows that the median gate fees at material recycling facilities and organic waste treatment facilities (e.g. anaerobic digestion facilities), which are preferred in the waste hierarchy, are significantly lower than gate fees at energy from waste plant and landfill facilities. To note, the median gate fees for recycling facilities and organic waste treatment facilities are also consistently lower than energy recovery or disposal each year. Waste management follows the most cost-effective solution, therefore the ERF component at REP will not hinder progress in that regard. Furthermore, WRAP's Gate Fee Report 2018 shows that the median anaerobic digestion gate fee for England continues to decline. Therefore, REP will support the drive to move waste further up the waste hierarchy by preventing residual waste going to landfill and work alongside the Mayor's recycling targets and policy aspirations.

5.7.67 REP will include an Anaerobic Digestion facility which will accept green and food waste. Anaerobic digestion has been recognised as one of the best methods for food recycling and will therefore help contribute towards the target of zero biodegradable or recyclable waste being sent to landfill. It will also help contribute towards the Mayor's 2030 municipal recycling targets and provide an 'in borough' Anaerobic Digestion solution for the London Borough of Bexley, reducing carbon intensive transport arising from current operations. Outputs from the Anaerobic Digestion facility may also be used as a fuel in the ERF to generate electricity or transferred off-site for use as a fertiliser/soil conditioner.

5.7.68 As such, both the ERF and Anaerobic Digestion facility within REP will support the waste hierarchy in London, providing for both food and green wastes and residual wastes arising in the locality, supporting the goals of NPS EN-1 and NPS EN-3 alongside the Mayor's recycling targets and policy aspirations. Further details are provided in **The Project and its Benefits Report (7.2; APP-103)** and the **Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045)**.

5.7.69 In addition, it is noted that although there are ultimate targets of 65% recycled municipal waste by 2036, there will inevitably be a transition period where waste still needs treatment and disposal, and REP will actively support this transition.

³⁶ Gate Fees Report 2018 – Comparing the costs of alternative waste treatment options, WRAP http://www.wrap.org.uk/sites/files/wrap/WRAP%20Gate%20Fees%202018_exec+extended%20summary%20report_FINAL.pdf

Riverside Energy Park

Applicant's responses to Written Representations

5.7.70 This is an ambitious target, and the London Environment Strategy (LES) recognises the extent of the challenges that London must counter in order to meet the 65% recycling target for municipal waste. These include: severe austerity measures affecting all the London Boroughs; a lack of any other funding after 2020; and limited powers attributed to the Mayor. In addition, the 65% recycling target for municipal waste relies upon achieving 50% across local authority collected waste (LACW). This is going to be both difficult and costly to achieve, not least modelling undertaken for the LES concludes that *'the highest performing combination scenario ... achieving a 42 per cent household recycling rate, would bring a cumulative cost of £129m in addition to business as usual costs'* (page 112, LES Evidence Base, Waste). Therefore, it is possible that the targets for recycling could be missed.

5.7.71 It is not the planning system's role to dictate how much capacity should be provided, rather that is for the market to dictate, and for private developers, such as the Applicant to proceed with development at their own calculated risk. Indeed, Paragraph 3.3.24 of NPS EN-1 states:

"It is not the Government's intention in presenting the above figures to set targets or limits on any new generating infrastructure to be consented in accordance with the energy NPSs. It is not the IPC's role to deliver specific amounts of generating capacity for each technology type. The Government has other mechanisms to influence the current delivery of a secure, low carbon, affordable electricity mix. Indeed, the aim of the Electricity Market Reform project (see Part 2 of this NPS for further details) is to review the role of the variety of Government interventions within the electricity market".

5.7.72 The planning system should, however, ensure that there are facilities available. The worst position would be for targets to be missed and no facilities available at the next stage of the waste hierarchy. Waste would then be diverted further down the hierarchy to e.g. landfill which is a far more carbon intensive process and a last resort for waste disposal.

5.7.73 As outlined above, the Applicant has demonstrated a clear need for the Proposed Development which is a far less carbon intensive option for waste disposal than landfill.

Combined Heat and Power

General comments

5.7.74 The comments at Paragraphs 37-47 of the respondent's Written Representation are noted and the ultimate conclusion at Paragraph 46 that *'CHP opportunities are being explored'* is welcomed. As alluded to by the respondent, the Applicant has undertaken a significant amount of work to explore the best possible use of waste heat from the ERF. The Applicant has considered the opportunities for heat connection specifically for REP within the **Combined Heat and Power (CHP) Assessment (5.4, APP-035)** and the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**.

5.7.75 **Section 3** of the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** presents the heat demand investigation which assesses potential off-takers for the heat produced by REP within a 10 km radius of the Proposed Development. The assessment has been undertaken in line with the Environment Agency's CHP Ready Guidance³⁷. **Paragraph 3.2.6** of the **Combined Heat and Power Supplementary Report** confirms that there is sufficient heat demand to accommodate both the heat produced from REP and the adjacent RRRF.

5.7.76 The Applicant has engaged with major local commercial and residential developers to the west of the REP site in Thamesmead which could offer the potential for REP to supply heat to a district heat network. Through this engagement, a major local developer (Peabody) has written to support the commitment to progress a district heat network (See **Appendix A** of the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**). In conjunction with partners, Peabody has identified Thamesmead as a key strategic growth area, aiming to develop 20,000 new homes over the next 30 years. The Bexley District Heating Partnership Board (of which Peabody is a member, alongside CRE, LBB and the GLA amongst others) was established to realise the opportunity for CHP offtake. As a member of the Partnership Board, Peabody supports the Proposed Development which would contribute to the collective goal of developing a heat network in the area.

5.7.77 Compared to other comparable projects at this pre-consent stage, the Applicant has taken considerable, demonstrable steps to actively pursue opportunities for heat export and has clearly identified the demand for a heat network in the area of the Proposed Development.

5.7.78 As set out in **Section 4.3** of the **CHP Assessment (5.4, APP-035)**, and further clarified in **Section 4** of the **CHP Supplementary Report (5.4.1, REP2-012)** using updated versions of the GLA ready reckoner (at the GLA's request), the proposed ERF would be capable of achieving or exceeding the Carbon Intensity Floor (CIF) target in every operational scenario, regardless of the volume of heat exported (although performance does improve with increasing heat export). This is made possible by the highly efficient technology proposed for REP which would ensure that the policy tests in the Adopted and Draft London Plans and the London Environment Strategy are met.

Economic Assessment

5.7.79 The comments made by the respondent in Paragraphs 41 and 42 of their Written Representation regarding economic assessment and potential funding of CHP / district heating as well as timing of future development are noted.

5.7.80 The economic assessment presented in **Section 7** of the **CHP Assessment (5.4, APP-035)** has been conducted in accordance with the Environment

³⁷

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/296450/LIT_7978_e06fa0.pdf

Riverside Energy Park

Applicant's responses to Written Representations

Agency's guidance and toolset³⁸, provided as a means to ensure compliance with Article 14 of the Energy Efficiency Directive (2012/27/EU).

5.7.81 The presented costs have been developed in collaboration with the preferred construction contractor for the project and benchmarked against market comparators. These figures represent the full costs for the design, engineering and construction of a district heating network to the scale proposed, accounting for heat recovery equipment and ancillaries, pipe routing, insulation, civil works and all associated costs. This approach is required to understand what level of heat price and subsidy (if relevant) would be required to establish an economically viable scheme.

5.7.82 There are a number of district heating delivery strategies which could be employed, each with varying levels of financing, ownership, operational and risk responsibilities. Following further discussion with Ramboll at a recent CHP strategy meeting on the 20th February 2019, the most likely arrangement appears to be the Applicant selling heat at a bulk heat price at the site boundary (or an appropriately metered location in close proximity to the primary heat exchangers). This price, in combination with any subsidy (if relevant) would offset the Applicant's capital and operational expenditure in financing, installing and operating heat recovery equipment, and all costs associated with the sacrifice of electrical generation. An energy service company (ESCO) would be responsible for ownership and operation of a distribution network and would sell heat to the consumer building operators or possibly individual heat consumers directly. The level of active involvement from the LBB in ownership and operation of a distribution network, through establishment of an ESCo, or whether this service would be fulfilled by the private sector, remains uncertain.

5.7.83 The funding status of a district heating network is typical for a project at this stage given that the Proposed Development is yet to secure consent and reach financial close. Both heat generators and heat consumers require some level of certainty around the prospects of a network being implemented. It is therefore common, particularly for heat networks supplied by medium / large scale ERFs, for substantive cross-party discussions around heat export to commence only once the relevant consents have been secured. The Applicant is however committed to realising a district heating network and the associated benefits this would bring, and has and will continue to pursue this ambition with its own resources.

Timing of future development

5.7.84 The aligned build out programmes cited in the **CHP Assessment (5.4, APP-035)** are possible on the basis that substantial housing development has been publicly announced or is underway in the region, as discussed in **Section 6.4** of the **CHP Assessment (5.4, APP-035)** and further clarified and refined in

³⁸

https://consult.environment-agency.gov.uk/psc/mcp-and-sg-regulations/supporting_documents/Draft%20Article%2014%20guidance%20April%202015%20V0.9.pdf

Section 3.2 of the **CHP Supplementary Report (5.4.1, REP2-012)**. In order to maximise the benefits associated with heat export and the volume of heat demand which could be provided by low carbon / renewable sources from REP, the Applicant intends to construct the ERF fully CHP-Enabled and provide heat at the earliest possible time.

5.7.85 Regardless of house build programme slippage, the volume of housing proposed in the region is vast (up to 20,000 dwellings plus associated commercial premises), and heat export commencement from 2024 to align with REP operational commencement is entirely possible. For a network of the size under consideration, large numbers of end consumers can take many years to connect. Therefore some slippage of house build programmes is not considered as a detriment to the viability of a district heating network in overall terms, providing that a fundamentally strong technical design and business plan is implemented. The Applicant has also committed to progressing alternatively heat export opportunities (principally businesses located on Burt's Wharf which represent a significant volume of surplus heat demand) in the unlikely event that proposed residential developments do not come forward.

5.7.86 The Mayor of London has identified Heat Network Priority Areas across London, where heat density is sufficient for heat networks to provide a competitive solution for supplying heat to consumers. REP falls within one of the identified Heat Network Priority Areas and is therefore well situated for implementing a heat network. In addition, the Adopted and Draft London Plan(s) and LBB's Sustainable Design and Construction SPD require new developments to connect to a heat network if it is feasible and investigate the incorporation of renewable energy technologies. As such, there exists strong policy drivers which would require new developments to accept heat from REP. The Applicant would welcome any further conditions placed on new developments through the planning process to ensure that heat uptake is maximised.

5.7.87 From a technical perspective, the technology proposed for a district heating network is well proven and can provide a heat distribution system with a 30 year plus design life. Incremental steps have been taken to ensure heat would be delivered with the highest practicable levels of energy efficiency, but the fundamental approach is well established and, provided that the design and construction of the network is managed by a competent project manager, the risks are well understood and comparatively low.

Heat Network Investment Project Funding (HNIP)

5.7.88 The respondent's comments at Paragraph 43 of their Written Representation regarding HNIP funding are noted.

5.7.89 Heat Network Investment Project (HNIP) funding remains active so the position highlighted in **Chapter 7** of the **CHP Assessment (5.4, APP-035)** is unchanged.

Riverside Energy Park

Applicant's responses to Written Representations

- 5.7.90 The Applicant has followed through on its commitment to support LBB and has engaged with Ramboll, who was commissioned by LBB to undertake a techno-economic feasibility study for a district energy network in the locality. Phase 1 of the study was published in December 2018 and a CHP strategy meeting was held on 20th February 2019 to discuss the results, verify technical and commercial assumptions adopted within the study and to discuss next steps in delivery of a heat network in the region. The meeting was attended by the Applicant, the Applicant's technical and commercial advisers and Ramboll (on behalf of the LBB).
- 5.7.91 To assist in the Phase 2 study, the Applicant provided Ramboll with a technical note outlining feasibility studies commissioned by the Applicant since 2014 to explore heat export from RRRF. The note substantiates technical assumptions in respect of heat export, covering heat export system configurations for hot water and steam options, presents equipment layouts, identifies space available for heat recovery and distribution equipment and sets out an indicative pipe route. The Applicant's commercial advisor also raised some suggestions in respect of commercial assumptions within the feasibility study, which could be adjusted to offer a more realistic view of the scheme under consideration.
- 5.7.92 Phase 2 of the study (dated 2nd May 2019) was issued as Appendix 2 to the GLA's written representation.

Capital Funding

- 5.7.93 The comments made by the respondent on the capital funding of any District Heating (DH) scheme in Paragraph 47 of their Written Representation are noted.
- 5.7.94 Given the nature and scale of a district heating network under consideration, and to facilitate the realisation of the associated carbon savings, efficiency improvements and social value added, the typical approach would be for the Applicant to seek public funds to support the delivery of a district heating network in combination with its own financing contribution. The public funding element has in the past, subject to technology type under consideration, typically been provided via central Government through the Renewable Heat Incentive and Renewables Obligation (superseded by Contracts for Difference). More recently, heat network support has shifted to the Heat Network Investment Project (HNIP). Local authorities have an important role to play and can benefit from central government support and prudential borrowing for these types of projects.
- 5.7.95 Relevant to comparable projects, the Applicant is exposing itself to a good deal of financial risk by committing to construct REP as fully CHP-Enabled from the outset, meaning that it would be fully capable of exporting heat from the commencement of operations, with all required on site infrastructure in place. The typical approach would be to build the facility as CHP-Ready which is a lower cost option and would be considered Best Available Technique (BAT) by the Environment Agency. The Applicant is therefore committed to the

Riverside Energy Park

Applicant's responses to Written Representations

realisation of heat export by going beyond legislative obligations, including by way of financial commitment.

5.7.96 Given the size of the scheme proposed and the highly capital intensive nature of the geographically expansive works required, it is likely that delivery of a district heating network would require financial contribution from not only the Applicant, but also some level of support from public funds, either in the form of a grant, low cost loan or tariff. As discussed previously, the specific level of support would be subject to the delivery strategy selected, the agreed heat price and the appetite of local authorities to take a role in the construction and operation of a network.

5.7.97 While the Applicant is making every effort in bringing forward heat export opportunities, principally through involvement in the Bexley District Heating Partnership Board and direct engagement with the LBB, GLA and their advisors, all relevant policy tests can be achieved without the inclusion of CHP. This is particularly relevant in respect of the GLA's Carbon Intensity Floor (CIF) threshold, which can be met by virtue of the high efficiency performance which would be achieved by REP.

Consultation

5.7.98 The comments made in Paragraphs 48-49 of the respondent's Written Representation are noted. The consultation zone was created specifically to cover the areas which have the most potential to be affected by the Proposed Development. The consultation zone was included in the Statement of Community Consultation (SoCC). **Section 7.3** of the **Consultation Report (5.1, APP-019)** describes the process of preparing and consulting on the SoCC which was sent to the following Local Authorities for comment:

- London Borough of Bexley;
- Dartford Borough Council;
- Kent County Council;
- Gravesham Borough Council;
- East Sussex County Council;
- Surrey County Council;
- Essex County Council;
- Medway Council;
- London Borough of Barking and Dagenham;
- Sevenoaks District Council;
- Thurrock Council;

Riverside Energy Park

Applicant's responses to Written Representations

- London Borough of Havering;
- Royal Borough of Greenwich; and
- London Borough of Bromley.

5.7.99 All of the above authorities were given the opportunity to comment on the SoCC and associated consultation zone. Where comments were received, these were incorporated into the SoCC.

5.7.100 As shown in **ES Figures 7.4 to 7.9** of the **ES (6.2, APP-056)** and the updated **Figure 7.5 (6.2, Rev 2)**, as submitted at Deadline 3, the air quality modelling results indicate no significant effects arising from emissions north of the River Thames. This is the reason why the Applicant focused consultation predominantly south of the river.

5.7.101 As part of the acceptance process for the DCO Application, Section 55(4) of the Planning Act 2008, as amended, requires the Secretary of State to have regard to any Adequacy of Consultation representation (AoC) received from a local authority consultee. The AoC responses for the Proposed Development are available on the Planning Inspectorate website: (<https://infrastructure.planninginspectorate.gov.uk/projects/london/riverside-energy-park/?ipcsection=docs&stage=2&filter1=Adequacy+of+Consultation+Representation>). No concerns relating to the adequacy of consultation were raised by those authorities which responded, comprising: Thurrock Council; RB Greenwich; LB Bexley; LB Lewisham; Kent County Council; Gravesham Borough Council; East Sussex County Council; LB Tower Hamlets; Dartford Borough Council; Brentwood Borough Council; 'Be First' on behalf of LB Barking and Dagenham; and the Greater London Authority.

5.7.102 As set out in **Section 7.4** of the **Consultation Report (5.1, APP-019)**, the Applicant undertook statutory (**Section 47**) consultation between 18 June and 30 July 2018 to give local people and stakeholders the opportunity to review further details of the Proposed Development, ask questions of the project team and provide feedback. During this phase of consultation, the Applicant presented preliminary environmental information relating to the environmental impact assessment (EIA) in a Preliminary Environmental Information Report (PEIR) (available at <https://riversideenergypark.com/consultation/materials>), which was available at the section 47 public exhibitions, at Upper Belvedere Community Library, Dartford Library, LB Bexley Civic Offices and on the project website: www.riversideenergypark.com/. **Appendix I.4** of the **Consultation Report (5.1, APP-019)** provide copies of the information panels displayed at these statutory public exhibitions.

5.7.103 **Paragraph 93** of the Department for Communities and Local Government (DCLG) (2015) Planning Act 2008: Guidance on the pre-application process (the PA 2008 DCLG pre-application guidance) requires that "*...for the pre-application consultation process, applicants are advised to include sufficient preliminary environmental information to enable consultees to*

Riverside Energy Park

Applicant's responses to Written Representations

develop an informed view of the project". **Annex 1** of the **Consultation Report (5.1, APP-019)** sets out how the Applicant complied with the PA 2008 DCLG pre-application guidance. As described in that Annex, the PEIR was produced in the same format as the ES and provided as much baseline information and preliminary findings of assessments as were available at the time, in order to ensure a meaningful pre-application consultation so that detailed responses could be formulated by consultees.

Employment

5.7.104 The comments in Paragraph 50 of the respondent's Written Representation are noted. The Applicant would suggest that it is not possible to accurately predict the outcomes of the Brexit process and that this is outside of their control. Nevertheless, any construction cost risk would be for the Applicant to address, such that no burden would fall to the public sector or members of the public.

5.7.105 The Applicant is committed to creating local employment benefits from the Proposed Development. As such, it is noted that **Requirement 18** of the **dDCO (3.1, Rev 2)** states that:

"(1) No part of the authorised development may commence until an employment and skills plan has been submitted to and approved by the relevant planning authority. (2) The employment and skills plan must be implemented as approved by the relevant planning authority".

Conclusions

5.7.106 Whilst the Applicant acknowledges the concerns raised by the respondent in their Written Representation, it has been demonstrated, as per the response above, together with information submitted in support of the DCO Application that these concerns have been addressed.

5.7.107 Furthermore, the Proposed Development would deliver several benefits including:

- A national and local policy-supported supply of low carbon/renewable energy, that will help to deliver climate change priorities, including sustainable waste management;
- Potential district heat network opportunities which would support development in opportunity areas through providing a reliable source of sustainable heat;
- Opportunities for local employment during both the construction and operational phases of the Proposed Development which would further support growth in opportunity areas; and
- Knock-on socio-economic benefits to potential opportunity areas from construction spend.

Riverside Energy Park

Applicant's responses to Written Representations

5.7.108 This includes the respondents concluding remarks on the following topics:

- Site Location;
- Connection to National Grid;
- Crossness Nature Reserve;
- Mayors Draft London Plan Context;
- Air quality;
- Recycling;
- Combined heat and power;
- Consultation; and
- Employment.

Appendix A Response to Appendix 1 (Analysis of Carbon Intensity Floor Calculations) to Greater London Authority Written Representation

Efficiency Justification

- 1.1.1 Eunomia makes a number of general points around the efficiency of energy-from-waste plants in section 2.1.3.
- 1.1.2 ***“Significant problems are caused by chlorine in the waste, which causes corrosion of the boiler tubes. To avoid this, incinerators using the moving grate technology commonly operate at a temperature range of 400-425 degrees C and 40-50 bar pressure. This, however, limits the gross electrical generation efficiency to around 24% (calculated based on the NCV).”*** While the Applicant agrees in principle that limitations on live steam temperatures are applicable to energy recovery facilities, in part as a result of flue gas composition, the efficiency figure (24%) presented by Eunomia has been misrepresented and, in the presented context, is incorrect. Eunomia references a 2014 academic paper³⁹, in which the following is quoted *“Typically in conventional WtE plants which generate steam at 40 bar/400°C, electrical efficiency of approximately 24% (with respect to LHV value) can be achieved”*. No reference is made to a limit on the electrical efficiency. Facilities which employ higher live steam temperatures and pressures than those referenced would achieve higher efficiency. The figure presented is also a generalisation and does not appear to account for incremental energy efficiency measures which would be implemented at the REP ERF.
- 1.1.3 The academic paper presents a 2010 publication prepared by Ramboll as the source for its efficiency figure. This publication could not be identified from the reference. However, it does indicate that the specific figure quoted is at least nine years out of date.
- 1.1.4 ***“A range of techniques can be utilised to increase the generation efficiency from this point; techniques include dividing the stream and the reheating the less corrosive part to raise to the temperature and pressure of this fraction, and the application of additional boiler cladding, which offers further protection against the corrosion that would otherwise occur by increasing the pressure. An alternative approach is to use the fluidised bed technology, which inherently operates at a higher temperature and pressure.”*** The Applicant agrees that electrical generation efficiency can be and has been improved beyond the

³⁹

<https://reader.elsevier.com/reader/sd/pii/S1876610214001386?token=53584B58CD6D0E019B1695A9700934E0D6954629F654D21EA6956A209E339F490D7075106F35AC0F29872432F2FD47C0>

Riverside Energy Park

Applicant's responses to Written Representations

24% (NCV basis) presented using a variety of methods, only some of which are mentioned by Eunomia. Of the stated options, only boiler cladding techniques are being employed in the UK for the purpose of improving plant efficiency.

- 1.1.5 Fluidised bed technology does not inherently operate at a higher temperature and pressure, nor does it inherently offer improved efficiency. Eunomia reference a paper (Matsuoka and Imaizumi (2017)) to support this assertion, but the paper does not consider higher temperatures and pressures at all. Instead, it considers how a particular manufacturer of fluidised beds is aiming to improve efficiency by operating with a lower air to fuel ratio, which is a valid technique but entirely different from the suggestion made by Eunomia.
- 1.1.6 ***“The European Commission provides data on the performance of incineration facilities in its document on the Best Available Techniques Reference Document for Waste Incineration. The above discussion is supported by the data this document provides on a wide range of European EfW facilities in respect of the electrical generation efficiencies. The data confirms that the majority of European incineration plant achieve a gross electrical generation efficiency of around 25-27%, with very few European plant even slightly exceeding a gross electrical generation efficiency of 30%; those that do are typically operating at higher temperature and steam pressures than those indicated above.”***
- 1.1.7 Eunomia is referring to data presented in Figures 3.87, 3.88 and 3.89 of the draft BAT Reference Document. The Applicant agrees that most European energy-from-waste facilities operate in the 24-27% efficiency range. The Applicant does note, however, that 12 plants are reported to operate with a gross electrical efficiency of 30% or more. Six of these operate at 33% or more. These have steam pressure between 60 and 80 bara and steam temperatures between 420 and 520°C.
- 1.1.8 The Applicant also notes that REP would operate with steam pressure of 75 bara and steam temperature of 440°C. This appears to be consistent with Eunomia's statements that higher steam pressures and/or temperatures are required to achieve higher efficiencies.
- 1.1.9 ***“Assuming the facility operates for 8,000 hours per annum, the gross electrical generation efficiency can be calculated as 34%, using the above NCV, electrical output and tonnage data. With respect to the discussion previously set out in Section 2.1.3, clearly this is some way above the usual electrical generation efficiency of incineration plant – such performance places the facility at the very top of the range of European plant in respect of gross electricity generation efficiencies. Whilst performance at this level is technically possible, it requires some additional effort”*** (section 2.2). The Applicant welcomes Eunomia's comments in recognising that the ERF at REP would be industry leading in terms of efficiency. The efficiency performance of the ERF at REP has been verified by Fichtner through thermodynamic modelling of the water/steam

Riverside Energy Park

Applicant's responses to Written Representations

cycle. Technical provisions which enable this level of efficiency to be achieved include:

- high live steam conditions made possible by the use of Inconel clad boiler passes and superheaters;
- multi-pass out steam turbine providing optimised steam pressures for condensate pre-heating, district heating, feedwater deaeration and combustion air (primary and secondary) pre-heating;
- flue gas recirculation;
- commitment to procure high efficiency steam turbine from market leading supplier;
- flash steam recovery from blow down vessel; and
- heat recovery from the flue gases after the flue gas treatment plant.

1.1.10 REP has been developed in close collaboration with a preferred construction contractor, with a demonstrable track record of delivering efficiency leading energy recovery facilities across Europe. A strong reference for the level of efficiency which has been achieved by the preferred construction contractor is the Lucerne (Renergia) Energy from Waste plant, located in Switzerland. The plant commenced operations in 2015. As can be determined from publicly available publication material, the plant is capable of achieving an efficiency of 29.9% in electricity-only mode, assumed to be on a NCV basis, increasing significantly in combination with heat export.

1.1.11 The Applicant notes that the DCO Application for the Ferrybridge Multifuel 2 (FM2) facility (ref EN010061) states that its anticipated net efficiency would be 29%, compared to the REP's net efficiency of 31.25%. However, data in the carbon impact assessment for FM2 (doc ref 6.4.23 for EN010061) actually shows that the anticipated net efficiency was 29.8%.

1.1.12 The Applicant notes that page 323 of the London Environment Strategy⁴⁰ presents high energy efficiency as a means of achieving the CIF target, which states "*Steps to demonstrate compliance with the CIF should include but are not be limited to...activities resulting in investment in technology or infrastructure improving the overall efficiency of the facility to meet the CIF*". Fundamentally CIF policy exists to ensure that energy recovery from waste is achieved with acceptable levels of CO₂ generation. REP offers a scheme which would be capable of achieving and exceeding this threshold though cutting edge design with a focus on recovering energy with the highest practicable level of energy efficiency.

⁴⁰ https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf

GCV vs NCV

- 1.1.13 Eunomia considers the two type of calorific value in section 2.1.1. ***“The GCV accounts for the total amount of energy produced in the combustion process. This includes the energy that is lost to the atmosphere as a result of evaporating the water formed during combustion (the water being formed when hydrogen in the fuel combines with oxygen). The energy consumed in evaporating the moisture of the fuel is sometimes referred to as the latent heat of evaporation. The NCV, on the other hand, excludes the heat consumed from the evaporation of this water.”*** The Applicant agrees with Eunomia's fundamental explanation of GCV and NCV, although the Applicant notes that the NCV accounts for the heat needed to evaporate the water contained in the waste as well as water formed from hydrogen in the waste.
- 1.1.14 ***“In line with many tools considering the energy produced from waste – including the Government's WRATE tool which was previously used to evaluate the performance of waste facilities in procurement processes - the CIF Ready Reckoner uses the NCV to establish the calorific value of the feedstock to energy from waste facilities, which is calculated, in turn, from the NCV of the constituent materials that comprise residual waste.”*** The Applicant notes this confirmation that the CIF Ready Reckoner uses NCV. The GLA had previously confirmed this point to the Applicant and all calculations using the ready reckoner use NCV.
- 1.1.15 ***“The rationale for using the NCV as the unit for measuring the energy content is that the latent heat of evaporation is typically not recovered via combustion processes.”*** The Applicant agrees that latent heat of evaporation is typically not recovered and is not being recovered at REP. This may be the reason for using NCV, and the Applicant notes that NCV is generally used in the waste industry.
- 1.1.16 Eunomia returns to this issue in section 2.2.
- 1.1.17 ***“The use of the NCV to calculate generation efficiencies is appropriate where no recovery of the latent heat of evaporation occurs at the facility, as was previously discussed in Section 2.1.1. However, if the facility is recovering some of the energy through condensation – as is implied by the information supplied in the CHP Assessment - the use of the NCV to calculate the gross electrical generation efficiency of the facility could overstate the efficiency by up to 30%, depending on how much moisture is actually being recovered through the condensation process.”*** The Applicant can confirm that REP is not recovering energy through condensation of the water vapour in the flue gases and so Eunomia's comments on this are not relevant. However, the Applicant notes that the statement from “the use of the NCV” would be misleading and incorrect even if energy was being recovered through condensation. It is necessary to step back to first principles to explain this.

Riverside Energy Park

Applicant's responses to Written Representations

- 1.1.18 The efficiency of an energy-from-waste plant, or indeed any power station, is simply the ratio of the power generated to the energy in the fuel. The energy in the fuel can be presented on a GCV or NCV basis. As GCV is higher than NCV, the efficiency of a given plant on a GCV basis is mathematically lower than the efficiency on an NCV basis. This means that it is important to state which basis is being employed.
- 1.1.19 Eunomia is asserting that if a facility recovers energy through condensation, which is a good thing as it means that more electricity will be generated from the waste, then the efficiency should be presented on a GCV basis rather than a NCV basis. This would mean that the energy in the fuel would be higher and therefore that the reported efficiency would be lower. The effect of this change would be that the reported efficiency of a facility which generates more electricity by recovering latent heat would appear to be lower than the reported efficiency of a facility which generates less electricity. This cannot be correct. Both facilities process the same waste and the facility which recovers energy from latent heat makes more electricity. Therefore, it is clearly more efficient and so any manipulation of the data which suggests that is less efficient cannot be right.
- 1.1.20 In making any comparisons between facilities, it is important that all values are calculated on the same basis as otherwise the comparisons would be misleading. It could be valid to compare the efficiency of both facilities either on a GCV basis or an NCV basis, but it would not be valid to switch between the two.
- 1.1.21 To give context to Eunomia's comments, it is important to consider how the efficiency is used. In the CIF ready reckoner, the user defines the energy in the waste and the electrical efficiency of the facility. The ready reckoner then calculates the power generated by the facility by multiplying the energy in the waste by the electrical efficiency of the facility. In order to decide whether the efficiency should be presented on a GCV or NCV basis, it is necessary to know whether the energy content of the waste in the ready reckoner is presented on a GCV or NCV basis. Clearly, the energy content of the waste and the efficiency of the plant must be consistent or the calculation will be wrong. Equally clearly, if some facilities are evaluated on the basis of GCV and others on the basis of NCV, then the evaluation will not be consistent or fair. Similarly, if the target value for CIF is set on the basis of NCV but the CIF is calculated on the basis of GCV, then the comparison will not be fair.
- 1.1.22 The Applicant has received explicit instruction from Eunomia (via the GLA in an email dated 13th February 2019) to undertake CIF calculations on a NCV basis. The Applicant is also aware of two other energy recovery facilities in London (Beddington and North London) which were consented subsequent to the introduction of the CIF in 2011, both of which employed NCV in their calculations at the time of consent determination, an approach which was accepted by the GLA. This approach has now been confirmed by Eunomia in section 2.1.1, as noted above.

Riverside Energy Park

Applicant's responses to Written Representations

- 1.1.23 Eunomia has specifically informed the Applicant's advisors that the energy content of the waste in the ready reckoner is presented on a NCV basis. The electricity generated is calculated in the ready reckoner by multiplying the energy content of the waste by the electrical efficiency. Therefore, if the electrical efficiency is based on GCV, as asserted by Eunomia, then the electricity generated will be calculated, incorrectly, to be lower and the performance of the facility will be reduced.
- 1.1.24 Eunomia notes in section 2.1.2 that ***"The standard developed by the UK government for the quality assurance of CHP schemes therefore advises the use of the GCV when calculating the energy balances of CHP schemes; as such, the GCV is used by Cory in its Combined Heat and Power assessment of the proposed facility."*** This is correct. However, the target values for the quality assurance scheme are also set on the basis of GCV so this scheme is internally consistent.
- 1.1.25 ***"Although the facility will have the technical potential to operate in CHP mode, it is not clear that this potential will be realised, given that the adjacent Cory Riverside Resource Recovery Facility (RRRF) could meet the feasible heat demand with 70% of its heat supply capacity."*** This topic is addressed separately in the Applicant's response to GLA's Written Representation (8.02.14).

CIF Results

- 1.1.26 In section 2.3, Eunomia considers the CIF calculations for REP.
- 1.1.27 ***"Calculations submitted by Cory using Eunomia's Ready Reckoner tool – and undertaken with a gross electrical generation efficiency of 34% for power-only mode - confirm the facility just meets the current CIF target of 400 g CO₂e per kWh of electricity when generating only electricity."*** It follows then that the CIF threshold of 400 g CO₂e per kWh of electricity, being the key relevant requirement adopted within policy, is met.
- 1.1.28 ***"There is slight variation in the score depending on which composition is used within the tool - performance is slightly better using Cory's own composition data in comparison to that seen where the score is modelled using the default waste composition in the tool for London Local Authority Collected Waste."*** The Applicant agrees with this point. For the avoidance of doubt, the Applicant notes that it supplied Eunomia with results from the ready reckoner with Cory's composition data but that this was not reported in the **Combined Heat and Power Supplementary Note (5.4.1, REP2-012)** as the Applicant considered it would be more appropriate to use the GLA's base waste to ensure consistency.
- 1.1.29 ***"Particularly given the uncertainties associated with [waste] composition modelling, the CIF scores should be seen as indicative, and not as a precise indicator of performance."*** While the Applicant agrees that the CIF score will vary depending on waste composition, it is not clear to the Applicant why Eunomia wishes to undermine its own tool which is provided as a basis

for undertaking comparative assessment of energy from waste infrastructure, and on which a relevant and significant policy test is measured. However, as noted by Eunomia, the CIF actually improves based on Cory's own waste data, which is itself based on the waste actually processed at RRRF.

- 1.1.30 ***“Some improvement in the score is seen when the facility operates in CHP mode; the best score achieved is 323 g CO₂e / kWh of electricity.”***
The Applicant notes that this is the lower than the scores presented for Edmonton and Beddington, which have been approved.
- 1.1.31 ***“However, it is important to note that the achievement of the current CIF target in power-only mode is contingent on the gross generation efficiency figure being the appropriate one to use. As was discussed above, this is efficiency calculation is based on the NCV being used as the measure for the energy content of the feedstock. If the GCV is used – arguably a more realistic measure of feedstock energy content if condensate is being recovered, as was discussed above in Section 2.2 – the facility would fall some way short of achieving the target of 400 g CO₂e / kWh of electricity in power-only mode.”*** As explained earlier, the statement in relation to GCV being a more realistic measure of feedstock energy content is incorrect and the application of this statement to assert that the efficiency based on GCV should be used is nonsensical and inconsistent with the basis for the CIF target. The GLA, advised by Eunomia, has set the CIF threshold using NCV as the basis for thermal input calculation, has set up the ready reckoner with the energy content of waste defined using NCV and has explicitly instructed the Applicant to calculate carbon performance as such. The GLA is now trying to move the goal posts to suit its own needs. The GLA is asking the Applicant to use GCV figures in a model that is designed for NCV figures. Recovery of latent heat within the flue gas would have no bearing on whether a GCV or NCV thermal input basis should be adopted; it simply means that the efficiency increases.
- 1.1.32 ***“Results from the CIF calculations are summarised in Table 1. The calculations for the ERF have been undertaken using the default LACW composition, and include consideration of the parasitic load of the facility. Values are provided for the facility operating in electricity only mode as well as CHP mode, and are calculated using both the NCV and GCV (calculated based on the data supplied in Cory's CHP assessment).”***
The Applicant agrees with Eunomia's presented figures for CIF scores calculated on a NCV basis, noting however that comprehensive context is not provided. The Applicant has presented consistent (NCV) figures in the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** including, at the GLA's request, CIF scores calculated in accordance with all preceding versions of the Ready Reckoner. The Applicant notes, however, that the figures presented in GLA's Written Representation, Appendix 1, are based on the most recent Ready Reckoner submitted to the Applicant, which has not been formally published. The CIF scores for the ERF at REP are improved under all operational scenarios when preceding (published) Ready Reckoners are used. In addition, later (2018 and 2019) versions of the Ready

Riverside Energy Park

Applicant's responses to Written Representations

Reckoner do not easily allow for the inclusion of the anaerobic digestion facility and so the results using these versions only include the energy generation benefit associated with the ERF. As a result, the figures presented in GLA's Written Representation, Appendix 1 are conservative and are not formed from a tool formally adopted within policy.

- 1.1.33 The figures presented on a GCV basis are irrelevant for the reasons described previously within this response.

Future CIF Targets

- 1.1.34 ***"The EPS target for London by 2030 is to deliver GHG savings of -0.167 tonne CO₂e per tonne of waste managed. Achievement of this target has been modelled assuming that all of London's energy from waste facilities achieve an overall CIF target of 300 g of CO₂ equivalent per kWh of electricity. This figure can be achieved through further development of CHP infrastructure and greater recycling of fossil carbon containing feedstocks (in particular plastics)."***
- 1.1.35 Eunomia's assertion of a reduced CIF target is misleading. The Mayor only intends to review CIF threshold in the future, and any change would be subject to consultation on the matter before potentially being adopted into policy.
- 1.1.36 Paragraph 5.85A of the Adopted London Plan⁴¹ states *"In order to ensure the carbon intensity floor remains relevant, the Mayor will consider reviewing the CIF level in future iterations of the London Plan."*
- 1.1.37 Page 288 of the London Environment Strategy⁴² states *"The Mayor will retain, for waste authorities, a target CIF level of 400 grams of CO₂ per kWh of electricity produced from LACW until at least 2025."*
- 1.1.38 Page 288 of the London Environment Strategy states *"The CIF will be reviewed by 2025, or earlier where appropriate, once London's heat networks and demand are better understood, with a view to tightening it to around 300 grams per kWh of electricity produced."* There is therefore no definitive position on the time or extent of a CIF threshold reduction.
- 1.1.39 ***"However, the CIF calculations suggest that the Riverside ERF will not exceed the 2030 CIF target [300 g CO₂e / kWh], thereby constraining London's ability to achieve the EPS at this point."*** This is not a relevant or adopted policy test, nor is it accurate to present this figure as the accepted position. Developments cannot be assessed on potential future policy.
- 1.1.40 ***"Achievement across London of the CIF, the EPS and the Mayor's recycling target is possible if further pre-treatment of residual waste"***

⁴¹ <https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan/london-plan-chapter-five-londons-response/pol-16>

⁴² https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf

takes place prior to some of the waste being sent for incineration – providing the pre-treatment focusses on the recycling of significant quantities of the plastic waste (particularly plastic). There is, however, no evidence that Cory has considered incorporating this additional treatment step within its facility.” As set out previously, the CIF would be met by REP by virtue of offering a highly efficient process for the recovery of electricity and heat from residual waste. There is no obligation on Cory, in respect of achieving the CIF, to undertake pre-treatment of waste as part of the Proposed Development. The Proposed Development is able to meet the CIF without the need for additional processing of waste. In any case the Mayor's objectives as set out in the London Environment Strategy are expected to drive down the quantities of plastics present in residual waste streams. As it is generally preferable to remove specific waste streams before they are mixed into residual waste, this is a better approach than requiring each EfW plant operator to incorporate additional pre-treatment. Assuming that the Mayor's policies achieve the desired reduction in plastic waste, the CIF performance of REP would improve, relative to current analysis, in the future.

Appendix B Comparison of EfW capacity need identified in the GLA WR and the Applicant's LWSA

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
Kent County Council	Early Partial Review of the Kent Mineral and Waste local Plan 2013 - 30	-274	Not Considered	N/A	0	<p>The Applicant is aware of the Kent MWLP Early Partial Review and of submissions made in response to that document by Wheelabrator Technologies Inc (WTI). The Applicant shares the concerns raised by WTI, particularly in identifying:</p> <ul style="list-style-type: none"> • a shortfall in the LACW arisings forecast and future residual waste management demand, potentially 88,000 to 193,000 additional tonnes of LACW arising and up to an additional 130,000 tonnes of residual LACW that should be diverted from landfill; • substantial elements of C&I waste potentially not accounted for in the KCC C&I Need Assessment resulting

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
						<p>in an additional 28,000 to 141,000 tonnes of residual C&I wastes to be diverted from landfill; and;</p> <ul style="list-style-type: none"> substantial amount of refuse derived fuel generated in Kent that is subsequently exported out of the UK; nearly 200,000 tonnes of RDF was manufactured in Kent, with between 100,000 to 188,000 tonnes from waste generated in Kent or the South East, and exported outside the UK. The work undertaken on behalf of the Applicant identifies wastes that are believed to be generated within Kent, but not currently recognised within the Waste Need Assessments undertaken to inform the Early Partial Review. WTI considered a range of waste need scenarios and found that

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
						Kent's Waste Need Assessments are generally at the bottom of those ranges, demonstrating that a highly conservative approach has been taken that is not credible.

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
Essex County Council & Southend on Sea Borough Council	Non-Hazardous Waste capacity Gap Update LACW	209	Essex and Southend-on-Sea Waste Local Plan, adopted July 2017	200	200	Policy 1 does not specify if this is for LACW or C&I waste, but the supporting text and evidence base documents indicate it is for the SRF resulting from LACW treatment. No C&I residual waste management is forecast, based on an expectation of c.700k tpa waste management capacity, of which the proportion of recovery throughput is not confirmed. The evidence base documentation is not clear in its calculations.
	Non-Hazardous Waste capacity Gap Update C&I	-1,408		0	0	The figure presented by the GLA includes currently consented, but not operational capacity. It is taken from a

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
						waste capacity update published in May 2018. The Authority Monitoring Report for 2016/17 identifies that just over 1 million tonnes of HIC wastes continue to be exported from the county, indicating a continued need for residual waste management capacity. Paragraph 5.34 states: <i>As can be seen in the graph above, there is a steadily increasing amount of Household/Industrial/Commercial waste both arising and managed within the plan area from 2009 until 2015, from which 2016 saw a slight decrease (approximately 38 thousand tonnes). The total exported has seen an increase since 2014 and is at the highest level of the analysis period at 1.46 million tonnes. This is an increase of approximately 340 thousand tonnes</i>

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
						<i>compared to 2015. The total imports have remained broadly stable, only increasing by approximately 200 thousand between 2009 and 2016. When considered in conjunction with Table 15, this shows that the plan area continues to be a net exporter of Household/ Industrial/ Commercial waste by 1.09 million tonnes in 2016.</i>
Surrey County Council	Surrey Waste Local Plan	148	Surrey Waste Local Plan, Draft Plan, December (2017) LACW	70	150	The forecasts in Table 7 were based on a range of recycling assumptions and not split into waste type. For the purposes of the LWSA, a nominal 250ktpa was assumed and split LACW: 70ktpa, C&I:180ktpa
			Surrey Waste Local Plan, Draft Plan,	180		The Waste Need Assessment referenced by the GLA (January 2019) does identify a residual waste treatment

Riverside Energy Park

Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
			December (2017) C&I			capacity gap of 148,000 tonnes at 2035. This is based on various assumptions, including reaching LACW and C&I recycling rates of 75%. This assessment is part of the County Council's policy review evidence base, it was updated in April 2019 (to clarify some points not relevant to these tonnages) and is currently going through Local Plan Examination.
Hertfordshire County Council	Waste Local Plan Review Draft Capacity Gap Report for Initial Consultation	154	Hertfordshire Waste Core Strategy & Development Management Policies, 2011-2026, adopted November	250	154	Text following Table 37 states 'The county will have a significant deficit of residual management capacity from the start of the Plan period. The quantity of residual waste requiring treatment or disposal is expected to decrease over the Plan period and the capacity gap

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
			(2012) LACW			reduces as a result. However, the capacity gap remains significant to the end of the Plan period. ' (page 35)
			Hertfordshire Waste Core Strategy & Development Management Policies, 2011-2026, adopted November (2012) C&I	350		
Thurrock Council	N/A		Not considered		0	
Buckinghamshire County Council	Buckinghamshire Minerals and Waste Local Plan 2016 to 2036	-53	Not considered		0	Paragraph 5.71 of the Buckinghamshire Waste Local Plan does state the quote provided by the GLA. It continues 'However, due to commercial arrangements and waste movements

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
						there may be a requirement in the future for additional recovery capacity. ...'
Medway Council	N/A		Not considered		0	
Norfolk County Council	Not considered		Twelfth Annual Monitoring Report Waste Data 2015-16, November (2016) LACW	200	600	Annual Monitoring Report Waste Data 2017-18, dated May 2019 reports that little new recovery capacity has been permitted and 'Therefore, there remains a need for nearly 608,000 tpa additional recovery (residual waste treatment) infrastructure capacity over the plan period in accordance with policy CS4.' (page 20)
			Twelfth Annual Monitoring Report Waste Data 2015-16, November (2016)	400		

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	From GLA WR Table 4		From the PBR (7.2, APP103)		The Applicant's updated assumed capacity gap or surplus (-ve) 000 tonnage	Comments
	Document considered by GLA WR Table 4	Gas or Surplus (-ve) 000 tonnes	Document considered by the Applicant in the PBR (7.2, APP-103)	Gap or Surplus (-ve) 000 tonnes		
			C&I			
Suffolk County Council	Not considered		Waste Core Strategy, including Development Management Policies, adopted March (2011) LACW	200	550	No update to the data reported in the LWSA are available on the Council's website

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
Kent County Council	Early Partial Review of the Kent Mineral and Waste local Plan 2013 - 30	Table A1 – page 37	Not Specified	2031	-274	Not considered					<p>The Applicant is aware of the Kent MWLP Early Partial Review and of submissions made in response to that document by Wheelabrator Technologies Inc (WTI). The Applicant shares the concerns raised by WTI, particularly in identifying:</p> <ul style="list-style-type: none"> a shortfall in the LACW arisings forecast and future

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											residual waste management demand, potentially 88,000 to 193,000 additional tonnes of LACW arising and up to an additional 130,000 tonnes of residual LACW that should be diverted from landfill; <ul style="list-style-type: none"> substantial elements of C&I waste

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											<p>potentially not accounted for in the KCC C&I Need Assessment resulting in an additional 28,000 to 141,000 tonnes of residual C&I wastes to be diverted from landfill; and;</p> <ul style="list-style-type: none"> substantial amount of refuse derived fuel generated in Kent that is subsequently

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											<p>exported out of the UK; nearly 200,000 tonnes of RDF was manufactured in Kent, with between 100,000 to 188,000 tonnes from waste generated in Kent or the South East, and exported outside the UK.</p> <p>The work undertaken on behalf of the</p>

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											<p>Applicant identifies wastes that are believed to be generated within Kent, but not currently recognised within the Waste Need Assessments undertaken to inform the Early Partial Review. WTI considered a range of waste need scenarios and found that Kent's Waste Need Assessments are generally at the bottom of those</p>

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											ranges, demonstrating that a highly conservative approach has been taken that is not credible.
Essex County Council & Southend on Sea Borough Council	Non-Hazardous Waste capacity Gap Update	Table 2 – page 11	LACW	2035	209	Essex and Southend-on-Sea Waste Local Plan, (adopted July 2017)	Policy 1	LACW		200	Policy 1 does not specify if this is for LACW or C&I waste, but the supporting text and evidence base documents indicate it is for the SRF resulting from LACW treatment. No C&I residual waste management is

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											<p>forecast, based on an expectation of c.700ktpa waste management capacity, of which the proportion of recovery throughput is not confirmed.</p> <p>The evidence base documentation is not clear in its calculations.</p> <p>The figure presented by the GLA includes currently consented, but not operational</p>

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											capacity.
			C&I	2035	-1,408			C&I		0	
Surrey County Council	Surrey Waste Local Plan	Table 29	Not Specified	2035	148	Surrey Waste Local Plan, Draft Plan, (December 2017)	Table 7	LACW		70	The forecasts in Table 7 were based on a range of recycling assumptions and not split into waste type. For the purposes of the LWSA, a nominal 250ktpa was assumed and split LACW: 70ktpa, C&I:180ktpa. The Waste Need Assessment
								C&I		180	

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											referenced by the GLA (January 2019) does identify a residual waste treatment capacity gap of 148,000 tonnes at 2035. This is based on various assumptions, including reaching LACW and C&I recycling rates of 75%. This assessment is part of the County Council's policy review evidence base, it was updated in

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											April 2019 (to clarify some points not relevant to these tonnages) and is currently going through Local Plan Examination.
Hertfordshire County Council	Waste Local Plan Review Draft Capacity gap Report for Initial Consultation	Table 37 - Page 5	Not Specified	2031	154	Hertfordshire Waste Core Strategy & Development Management Policies, 2011-2026, (adopted November 2012)	Table 6, 9 and 10	LACW		250	Text following Table 37 states 'The county will have a significant deficit of residual management capacity from the start of the Plan period. The quantity of residual waste requiring
								C&I		350	

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
											treatment or disposal is expected to decrease over the Plan period and the capacity gap reduces as a result. However, the capacity gap remains significant to the end of the Plan period. ' (page 35)
Thurrock Council	N/A					Not considered					
Buckinghamshire County Council	Buckinghamshire Minerals and Waste Local Plan 2016 to	Policy 12 - Page 60	Not Specified	2036	-53	Not considered					Paragraph 5.71 of the Buckinghamshire Waste Local Plan does state

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments	
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes		
	2036										the quote provided by the GLA. It continues 'However, due to commercial arrangements and waste movements there may be a requirement in the future for additional recovery capacity. ...'	
Medway Council	N/A					Not considered						
Norfolk County Council	Not considered					Twelfth Annual Monitoring Report	Page 19	LACW			200	Annual Monitoring Report Waste Data 2017-18,
							C&I			400		

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
						Waste Data 2015-16, (November 2016)					dated May 2019 reports that little new recovery capacity has been permitted and 'Therefore, there remains a need for nearly 608,000 tpa additional recovery (residual waste treatment) infrastructure capacity over the plan period in accordance with policy CS4.' (page 20)
Suffolk County Council	Not considered					Waste Core Strategy,	Table 6 and Policy	LACW		200	No update to the data reported in

Riverside Energy Park
 Applicant's responses to Written Representations

Waste Planning Authority (WPA)	GLA					LWSA (Annex A to PBR) (7.2, APP-103)					Comments
	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	Document	Reference	Waste	Forecast Year	Gap or Surplus (-ve) 000 tonnes	
						including Development Management Policies, (adopted March 2011)	WCS4	C&I		360	the LWSA are available on the Council's website

Appendix C Riverside Resource Recovery Facility Heat Export Feasibility

Memorandum

To	[REDACTED]	Organisation	Cory Riverside Energy
CC	[REDACTED]	Organisation	Cory Riverside Energy
From	[REDACTED]	Our ref	S2383-0030-0012RLB
Date	08-03-2019	Pages	7
Subject	Riverside Resource Recovery Facility Heat Export Feasibility		

Since 2014, Fichtner Consulting Engineers (Fichtner) has supported Cory Riverside Energy (CRE) with feasibility studies surrounding heat export from the Riverside Resource Recovery Facility (RRRF). Of interest was a development project comprising steam or hot water export to a proposed heat customer on a nearby parcel of land, located approximately 150m to the south of the RRRF.

We have taken relevant excerpts from these studies, which are presented subsequently. This information was prepared exclusively for the heat customer project and should therefore not be relied on for the development of a wider district heating scheme. However, we trust that the following is of value in substantiating technical assumptions at a high level and understanding heat export system configuration and logistical considerations.

Background

The RRRF processes approximately 750,000 tonnes of residual waste per annum via three incinerating lines, and since 2014 is permitted to process up to 785,000 tonnes per annum. The heat released by the combustion of the waste on three combustion lines is recovered in water tube boilers, which produce (in combination with superheaters) high pressure superheated steam supplying a single turbine-generator. The steam turbine has three extraction bleeds which are utilised to serve internal process heating demands. The steam turbine currently operates in fully condensing mode (i.e. designed to export power only).

Consent for the RRRF was secured on the basis that the plant was constructed to generate power only, but included a condition to facilitate development of a heat export system in the future. Condition 30 of the planning permission requires that *'A facility shall be provided and maintained within the development to enable steam pass-outs and/or hot water pass-outs and reserve space for the provision of water pressurisation, heating and pumping systems for off-site users of process or space heating.'*

The RRRF has been designed to export of up to 28 MW_{th} of heat (subject to heat export conditions) when operating in combined heat and power (CHP) mode.

Heat Extraction from the RRRF

Low pressure (LP) steam at approximately 4.5 bara is supplied from a 'sliding-bleed' arrangement comprising two bleeds connected to a common LP header. At high inlet steam flows to the turbine, the lower-pressure bleed supplies steam to the LP header; at reduced inlet steam flows, the lower-pressure bleed is closed and steam is supplied from the higher-pressure bleed.

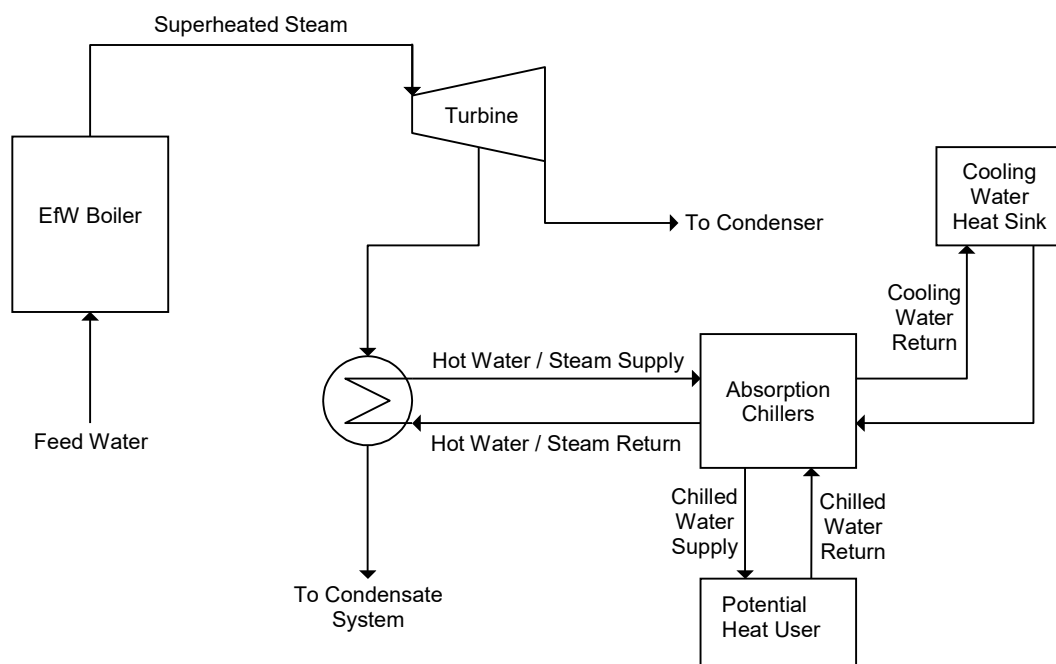
The higher pressure bleed is referred to as 'LP1' and the lower-pressure bleed as 'LP2'. The separate low-low pressure bleed (at approximately 0.7 bara) is referred to as 'LLP'. The function of the steam bleeds is as follows.

1. During operation at nominal plant load, LP1 is out of operation. LP1 normally operates during steam turbine part load operation (approximately 85% and below) instead of the LP2 bleed.
2. LP2 is the main steam extraction for plant auxiliaries and is directed via a steam header to the boiler selective non catalytic reduction (SNCR) system, primary and secondary combustion air preheaters and deaerator. The nominal flow through this extraction is 11.2 kg/s.
3. Steam is exported through the LLP bleed to supply a first preheating stage of the condensate at nominal flow rate of 5.4 kg/s.

When the turbine is operating in low load or is out of operation, no steam is available for feeding consumers from the LP header. To maintain supply of steam in this case, steam is supplied directly to the LP header from the high pressure live steam via a pressure reducing valve.

Figure 1 shows a simplified schematic the heat export arrangement proposed for the heat customer project.

Figure 1: Schematic of proposed heat export scheme



In order to maximise system efficiency and facilitate greater flexibility in terms of heat export capacity, steam would be extracted from the turbine, via the LP header, and administered to two heat exchangers in a serial arrangement. Heat would be transferred to a hot water or steam closed loop circuit and distributed through an export pipeline to a series of absorption chillers located at the heat customer. The absorption chillers would utilise this heat in a vapour absorption cycle to meet the heat customer cooling demand, before returning the hot water for reheating at the RRRF. A cooling water circuit and associated cooling plant (typically adiabatic coolers) would be required to reject waste heat to atmosphere.

In June 2015, CRE installed isolation valves on the LP steam header to facilitate steam extraction for the proposed heat export system. If implemented, the underlying operational principles of the plant would remain largely unchanged, but enable steam pipework and downstream heat export equipment to be installed. The RRRF is therefore able, with relatively minimal modifications, to supply heat to an offsite consumer or district heating network the future.

Heat Export via Hot Water

The heat supply infrastructure as a whole has been sized to enable the maximum anticipated export capacity to be recovered through two primary heat exchangers and then delivered through a buried pre-insulated pipe system to the heat customer. Pipe technology is well proven and can provide a heat distribution system with a 30 year plus design life, enabling hot water to be transferred large distances without significant losses. Additional pipe work can be added retrospectively and it is reasonably straightforward to add branches to serve new developments.

The heat exchangers would be supplied by dedicated steam pipework from the turbine extractions, via the LP header, to facilitate heat transfer to the hot water circuit. Condensate pipelines would return low grade water to the RRRF condensate system.

At the connection point with the heat customer, the hot water would supply heat to a series of absorption chillers to meet the cooling demand. The water circuit would be continuously pumped back to the primary heat exchangers for reheating. Pumps are operated with 100% standby capacity to maintain heat in the event of a pump fault. Pumps are likely to utilise variable speed drives to minimise energy usage.

The scope of works for the hot water system would include the following equipment.

1. Two steam pipes, including valves, from the LP steam header and turbine extraction to the primary heat exchangers located on the heat exchanger platform.
2. Two condensate return pipes, including valves, from the primary heat exchangers to a condensate collection tank. A common condensate return pipe, including valves, from the condensate collection tank to the main plant condensate system.
3. Two shell and tube steam to water heat exchangers.
4. Two duty/standby condensate pumps and invertors per heat exchanger (four in total).
5. Two controlled steam extraction valves and associated control system.
6. All pipework within the heat exchanger platform including pipe supports, valves, etc.
7. Pre-insulated district heating pipework from the heat exchanger platform to termination points at the heat customer site, as well as a third branch for future network expansion, including all civil works.
8. Three heat network circulation pumps and invertors (two duty, one standby) to allow for system capacity increase as build program progresses.
9. Pressurisation system, water softener and chemical dosing, including make-up water connection.
10. Heat meter to measure quantity of energy exported from the plant and on each of the branches connecting the North and South sites.
11. Elevated steelwork platform to house the heat export equipment.
12. Control system fully integrated with the RRRF control system.
13. All instrumentation.
14. All associated civil works including heat exchanger platform.
15. 415V power supply to the heat exchanger platform.

Heat Export via Steam

As a result of land ownership restrictions in the area surrounding the plant, it is anticipated that steam flow and return pipework would follow the same route proposed for the hot water circuit and would be routed in an underground duct. Pipe gradients and steam traps should be considered

in the detail design stage of the project to protect against condensate formation in the system. Since steam is much less dense than water the space requirements and capital cost of the pipework will be increased. In addition, expansion loops may be required, which would increase the overall pipe length.

The scope of works for the steam system would include the following equipment.

1. Two controlled steam extraction valves and associated control system.
2. Insulated steam and condensate pipework from the steam turbine to termination points at the heat customer site, as well as a third branch for future network expansion, including all civils works.
3. If physical separation between the RRRF water/steam circuit and the heat customer is required, two steam to steam heat generators.
4. Two duty/standby condensate pumps located downstream of the chiller bank at each of the North and South sites (four in total).
5. Heat meter to measure quantity of energy exported from the plant and on each of the branches connecting the North and South sites.
6. Control system fully integrated with the RRRF control system.
7. All instrumentation.
8. All associated civil works including heat exchanger platform (if required).
9. 415V power supply to the heat exchanger platform (if required).

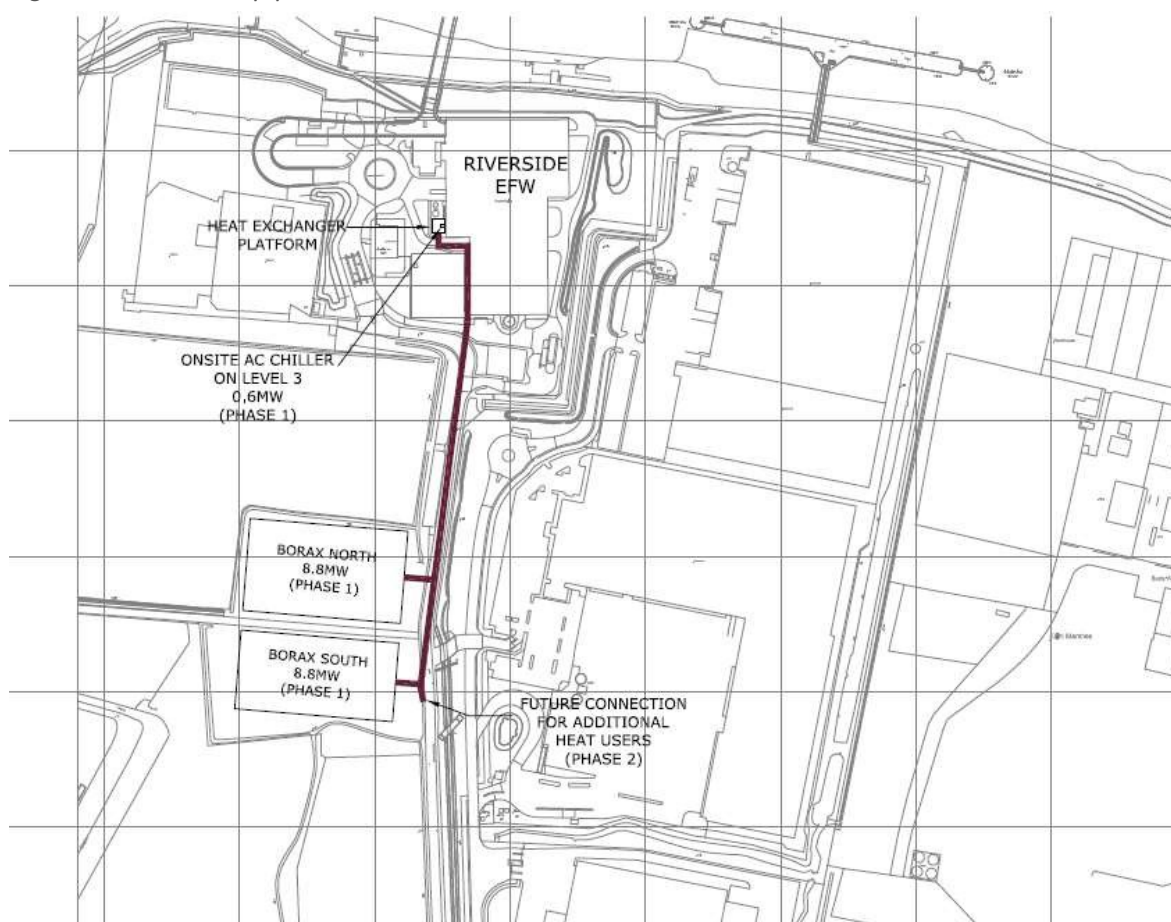
Proposed Heat Export Pipe Route

The predominant engineering issue associated with the supply of heat to the heat customer relates to the installation of the heat supply pipeline. The flow and return pipelines required to export the maximum anticipated export capacity is likely to be around 400mm nominal diameter (assuming a flow/return temperature differential of 20°C). The position of existing cables and pipes located in the RRRF turbine house have been reviewed and do not present any major challenges. However, at the time of installation, the operational needs of the plant would need to be taken into consideration to avoid conflict resulting in lost generation.

The heat customer would comprise a North and South site, each of which would have its own connection interface fed by separate branches of the heat network. It is proposed to incorporate a third branch southwards down Norman Road with the intention that the network can be expanded to supply additional heat consumers if technically and economically feasible heat demand is identified in the future. Should additional demand be identified in the future, it will be possible to increase the flow/return temperature differential in order to increase export capacity.

In the interim, the termination point of the potential expansion branch will be capped. This arrangement is illustrated in the following figure. It should be stressed that this routing is indicative and a detailed engineering assessment would be required to determine the optimum route when the network requirements have been agreed with the development partner.

Figure 2: Indicative pipe route



Norman Road is an adopted public highway and will therefore require a traffic management plan to be put in place. While the location of buried utilities are generally well understood, there is a risk that unknown utilities could be discovered. These issues have a direct bearing on the cost and installation time for the pipeline but can be overcome with competent project management. CRE will need to comply with the requirements of the New Roads and Street Works Act (NRSWA), which lays down the legal obligations that apply to both statutory and non-statutory undertakers wishing to install apparatus in the public highway. Failure to comply can lead to fines and/or an order to remove the apparatus. Access to any manholes or inspection chambers on the pipe route would require further authorisation by the local Highway Authority at a small cost.

Primary Plant Equipment (Hot Water Option)

The following images were ascertained from 3D plant modelling and provide an indication of a feasible layout for the heat network equipment located at the RRRF. The equipment has been sized to meet the maximum anticipated export capacity and includes all equipment required to export heat in a water circuit (not including thermal stores in this case). There will be some differences in the selection of equipment if the steam export scenario is implemented.

At the RRRF, there is an existing platform located between the air cooled condenser and the turbine hall which houses HVAC and lube oil coolers at the 12m level. It is proposed to extend this platform northwards to provide a suitably sized area for installation of the heat exchangers/steam

generators and associated equipment. Locating the heat exchanger platform a relatively short distance from the turbine extractions acts to reduce the capital cost of steam admission and condensate return pipework.

Figure 3: Heat exchanger platform, facing south-east

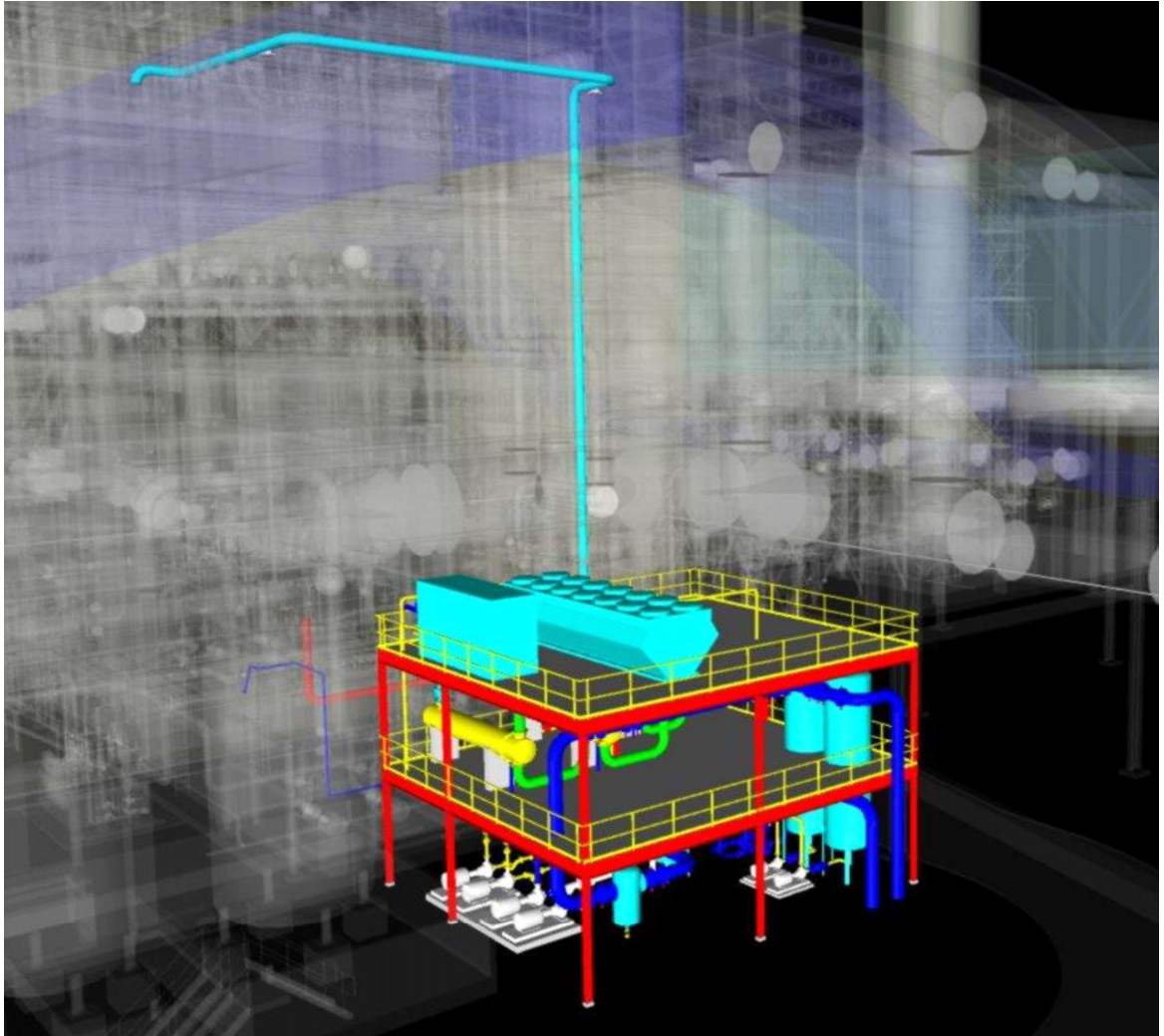
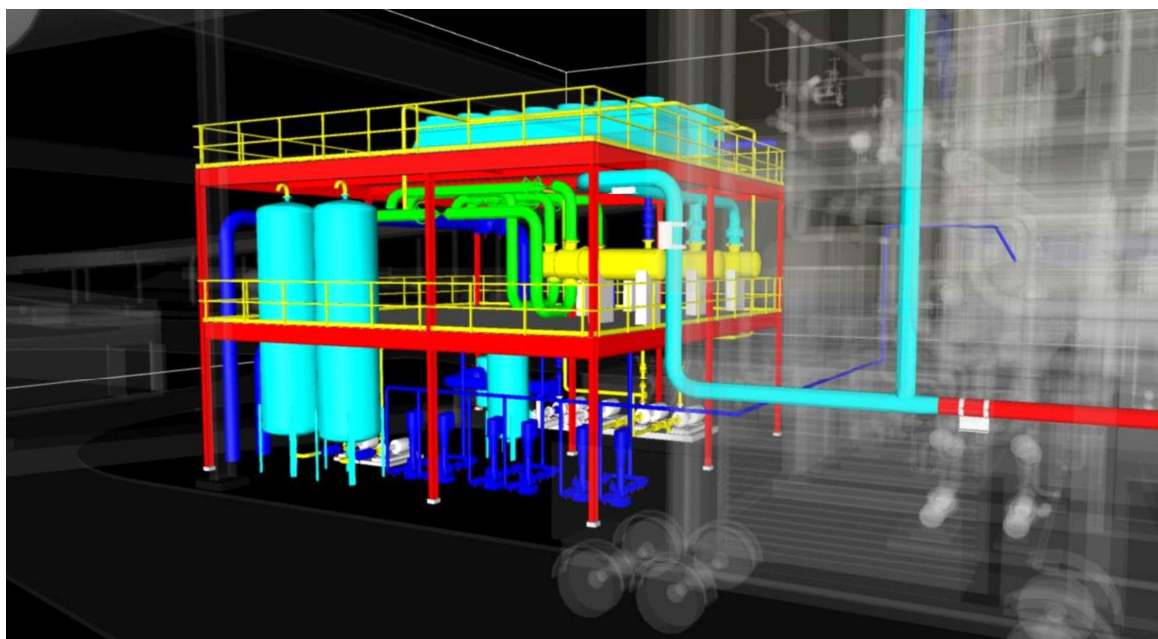


Figure 4: Heat exchanger platform, facing north-west



It is anticipated that the platform will have three levels, each separated by 4m to coincide with the existing plant floor levels, with lifting beams and sufficient space to carry out all foreseeable operation and maintenance activities, in the following arrangement.

1. Level 1 (0m) – heat network circulation pumps, condensate return pumps, pressurisation system (including expansion vessel and pumps), air/dirt separator and chemical dosing system.
2. Level 2 (4m) – heat exchanger steam header, heat exchangers, hot water supply header and hot water return header.
3. Level 3 (8m) – air conditioning chiller and associated adiabatic cooler, to supply plant air conditioning demand.

Fichtner can confirm that, subject to detail design and based on the maximum heat export capacity anticipated, it is possible to accommodate the required infrastructure on a heat exchanger platform, made up of three levels each approximately 150m².

Yours sincerely

FICHTNER Consulting Engineers Limited



Associate Senior Consultant



Principal Consultant

Appendix D Applicant response to LBB's tracked-change draft of the DCO

- 1.1.1 This section provides a tabular response to proposed changes made by LBB to the Applicant's submission stage draft **Development Consent Order (3.1, APP-014)**. Note that the Applicant submitted, at Deadline 2, a revised version of the draft **Development Consent Order (3.1, Rev 1, REP2-006)** and is submitting Rev 2 of the draft **Development Consent Order** at Deadline 3 alongside side this document (**3.1,Rev 2**). Where appropriate this table refers to or discusses the proposed LBB changes in the context of the revised wording that is in the Rev 2 Development Consent Order.
- 1.1.2 All references to Articles, paragraphs, requirements and Schedules in the Applicant's response, are to Rev 2 of the draft **Development Consent Order** submitted at Deadline 3 (unless otherwise stated to the contrary).

Table A.1: Applicant's responses to LBB comments on application stage dDCO

Section / Requirement (Rev 0 of the draft DCO)	Proposed change	Applicant's Response (All references to Rev 2 of the draft DCO)
Interpretation A2(1)	<p>"jetty outage" means circumstances caused by factors beyond the undertaker's control in which waste has not been or could not be received at the jetty or ash containers have not been or could not be despatched from the jetty <u>for a period in excess of 4 consecutive days;</u></p>	<p>The Applicant has included a definition of "jetty outage" in the draft DCO, which is the same as that proposed by LBB but without the words <i>"for a period in excess of 4 consecutive days."</i> Rather than include it in article 2(1), the definition is included in requirement 14 of Schedule 2.</p> <p>The Applicant does not accept the proposed inclusion of 4 consecutive days before it can invoke the jetty outage provisions in Requirement 14 of Schedule 2 of the draft DCO (the restriction on heavy commercial vehicle movements delivering waste). The Applicant has reviewed the storage capability at REP as well as considered the implications of both</p>

Riverside Energy Park
 Applicant's responses to Written Representations

		<p>RRRF and REP potentially affecting the road network simultaneously for all waste deliveries and export of ash. Following this review, the Applicant proposes that the jetty outage exception is triggered after a period of 48 hours.</p>
<p>Part 2, Development consent granted by the Order A3(3)</p>	<p>(3) In carrying out and maintaining the authorised development the undertaker may deviate vertically from the levels of the authorised development shown on the xxx plans to any extent downwards and upwards not exceeding 2 metres.</p>	<p>Reference to "<i>shown on the xxx plans</i>" is not appropriate, as no plans show any vertical limits of deviation – that is the purpose of this Article.</p> <p>Reference to "<i>and upwards</i>" is not relevant as the Applicant is not seeking an upwards deviation, only a downwards deviation. The upwards deviation has been incorporated into the parameters that are set out in the Table in Requirement 3.</p> <p>The downwards deviation does not relate to the maximum and minimum "heights" within the Table in Requirement 3, but does relate to the "depths" in that Table.</p> <p>We understand that following the Hearing into the draft Development Consent Order held on 6 June 2019, the drafting of Article 3 as in Rev 1 (and in Rev 2) of the draft Development Consent Order is now agreed.</p>
<p>Part 2, Consent to the benefit of the Order, A8(4)(a) (now A9)</p>	<p>(4) This paragraph applies where— (a) the transferee or lessee holds a licence under section 6 of the Electricity Act 1989(b); and (b) the time limits for all claims for compensation in respect of the acquisition of land or effects upon land under this</p>	<p>The insertion of "<i>and</i>" is incorrect.</p> <p>The provisions of Article 9(4)(a) and 9(4)(b) are exclusive of each other, not dependent on each other.</p> <p>"or" is included in Article 9(4)(a) in both Rev 1 and Rev 2 of the draft</p>

Riverside Energy Park
 Applicant's responses to Written Representations

	Order have elapsed and—	Development Consent Order.
Part 3, Temporary prohibition or restriction of use of streets and public rights of way, A12(3) (now A13)	(3) The undertaker must provide reasonable access for non-motorised users (including pedestrians) and vehicles going to or from premises abutting a street or public right of way affected by the temporary alteration, diversion, prohibition or restriction of a street or public right of way, and access for statutory undertakers to their apparatus under this article if there would otherwise be no such access.	<p>This change is unnecessary as statutory undertakers are protected under Article 34 (Apparatus and rights of statutory undertakers in stopped up streets).</p> <p>We understand that following the Hearing into the draft Development Consent Order held on 6 June 2019, the drafting of Article 14 as in Rev 1 (and in Rev 2) of the draft Development Consent Order is now agreed.</p>
Part 3, Permanent stopping up of streets, A13(1) (now A14)	<p>Permanent stopping up of and works in streets</p> <p>13.—(1) Subject to the provisions of this article, the undertaker may, in connection with the carrying out of the authorised development, stop up each of the streets specified in columns (1) and (2) of Schedule 6 (permanent stopping up of streets) to the extent specified, by reference to the letters shown on the access and public rights of way plan, as described in column (3) of that Schedule <u>and shall provide a suitable replacement turning head as shown on plan xx to facilitate a forward side-turn manoeuvre by vehicles.</u></p>	<p>The Applicant inserted into Requirement 8(3) at Deadline 2 (Rev 1 of the draft Development Consent Order) a restriction preventing the Applicant from exercising the power under Article 14 (Permanent stopping up of streets) until a plan showing the proposed layout for the termination of the highway has been submitted to and approved by LBB.</p> <p>The Applicant has updated Requirement 8(3) in Rev 2 of the draft Development Consent Order so that it reads:</p> <p><i>"The undertaker must not exercise the power in Article 14(1) unless and until a plan showing the layout for the termination of the street (as specified in columns (1) and (2) of Schedule 6) has been submitted to and approved by the relevant planning authority, such plan to show the replacement</i></p>

Riverside Energy Park
 Applicant's responses to Written Representations

		<i>turning head to facilitate a forward side-turn manoeuvre in forward and reverse gears by vehicles."</i>
Part 4, Authority to survey and investigate the land A18(1) (now A19)	Deletion of the words words "or enter on any land which may be affected by the authorized development and"	<p>The Applicant does not accept the deletion of the words "<i>or enter on any land which may be affected by the authorised development and</i>".</p> <p>The purpose of this Article is to provide the Applicant with the power to go on to land to carry out surveys in order to comply with the Development Consent Order. We also note that this was not raised at the Hearing on the Development Consent Order held on 6 June 2019.</p>
Part 4, Felling or lopping of trees, A20(1) (now A21)	20.—(1) The undertaker may fell or lop any tree or shrub near any part of the authorised development <u>within the Order Limits</u> , or cut back its roots, if it reasonably believes it to be necessary to do so to prevent the tree or shrub—	<p>The Applicant has amended Article 21 so that it is restricted to trees and shrubs within, or overhanging, the Order Limits.</p> <p>We understand following the Hearing on the Development Consent Order held on 6 June 2019 that the Applicant's amendment is now agreed.</p>
Part 4, Felling or lopping of trees, A20(1)(c)(2) (now A21)	(2) In carrying out any activity authorised by paragraph (1) the undertaker must do no unnecessary damage to any tree or shrub, <u>must have regard to its function and quality, must consult the owner of the land before carrying out such activity</u> and must pay compensation to any person for any loss or damage arising from such activity.	<p>The amendment is not accepted.</p> <p>The proposed Development is a Nationally Significant Infrastructure Project (NSIP) and requiring the Applicant to consult with the owner of the land before exercising the power is an unnecessary constraint which could impede the delivery of the NSIP. The Application has undergone extensive consultation, with the draft development consent order post submission the subject of s56 consultation and examination.</p> <p>In addition, the Applicant must comply with Requirement 6</p>

Riverside Energy Park
 Applicant's responses to Written Representations

		(Replacement planting for Work No 9). Given we presume that LBB's concerns relate to the Electrical Connection route rather than the REP site, Requirement 6 would require the Applicant to submit details of any trees and shrubs that are to be removed during the construction of Work Number 9 and identify the replacement planting. These details must be submitted to LBB and approved prior to the construction of Work Number 9.
Part 5, Compulsory acquisition of land, A21(1) (now A22)	21.—(1) The undertaker may acquire compulsorily so much of the Order land as is required for the authorised development or to facilitate it, or as is incidental to it, <u>other than land listed in Schedule 9.</u>	The additional words are not necessary as the Article is made subject to Article 31 (Temporary use of land for carrying out the authorised development) which contains the necessary restriction in Article 31(8). No amendment required.
Part 5, Compulsory acquisition of rights, 23(1) (now A24)	(2) In the case of the Order land specified in column (1) of the table in Schedule 7 (land in which only new rights etc. may be acquired) the undertaker may <u>only</u> acquire compulsorily the existing rights and restrictions over land and create and acquire compulsorily the new rights and impose new restrictions as are specified in column (2) of the table in that Schedule.	Amendment not necessary – see revised wording in Article 24(1) included in both Rev 1 and Rev 2 of the draft Development Consent Order.
Part 5, Modification of Part 1 of the Compulsory Purchase Act 1965, A28(5)(b) (now Article	In this Schedule, references to entering on and taking possession of land do not include doing so under article 30 (temporary use of land for carrying out the authorised development) or article 31 (temporary use of land for	Amendment made in Rev 1 of the draft Development Consent Order (and remains in Rev 2).

Riverside Energy Park
 Applicant's responses to Written Representations

29(5)(b))	maintaining the authorised development) or article 19 (protective works to buildings) of the Riverside Energy Park Order 202* ."	
Part 5, Temporary use of the land for maintaining the authorised development, A31(1) (now A32)	Change "reasonable" to "reasonably" in 31(1)(c)	Amendment made in Rev 2 of the draft Development Consent Order.
Part 5, Special Category Land A43	43.—(1) On the exercise by the undertaker of the order rights, so much of the special category land as is required for the purposes of the exercise of those rights is discharged from all rights, trusts and incidents to which it was previously subject, so far as their continuance would be inconsistent with the exercise of the order rights, <u>but only where the land would be no less advantageous to the persons in whom it is vested.</u>	The Applicant has removed all Special Category land from the Order Limits at Deadline 2, being the Public Open Space south west of the Electrical Connection crossing of the River Cray. The Article has been removed from Rev 2 of the draft Development Consent Order.
Schedule 1, Work No. 1 (a)	Work No. 1 — Works to construct an integrated energy park— (a) Work No. 1A — an energy recovery facility <u>with a capacity of no more than 805,920 tonnes per annum of waste,</u> including— (i) fuel reception and storage facilities	The Applicant does not accept this change, principally because the environmental effects of the ERF are not dependent on the waste throughput of the ERF and such a restriction would prevent the ability to secure improvements and efficiencies for the plant over its lifetime. This is consistent with NPS EN-3 at paragraph 2.5.13, which states that " <i>Throughput volumes are not, in themselves, a factor in [Secretary of State] decision-making as there are no specific minimum or maximum fuel throughput limits for different technologies or levels of electricity generation. This is a matter for the applicant. However, the increase in traffic volumes, any</i>

Riverside Energy Park
 Applicant's responses to Written Representations

		<p><i>change in air quality, and any other adverse impacts as a result of the increase in throughput should be considered by the [Secretary of State] in accordance with this NPS and balanced against the net benefits of the combustion of waste....."</i></p> <p>More detail on this matter is provided in the Applicant Responses to ExA First Written Questions (8.02.04, REP2-055) responses to questions 1.0.1, 1.0.2 and 7.0.9 submitted at Deadline 2. Refer also to the Applicant's Environmental Permit and Air Quality Note (8.02.06, REP2-057)</p>
<p>Schedule 1, Work No. 1 (a)(vii) and (viii)</p>	<p>(vii) bottom ash conveyors, including storage bunker, crane and ash collection bay; <u>and</u> <u>(viii) a dedicated bottom ash storage area where bottom ash containers must be stored no more than xx metres high .</u></p>	<p>The Applicant does not accept this change. No on site dedicated bottom ash storage area is proposed (other than within the bunker itself) within the REP site. As was discussed at the Hearing on the draft Development Consent Order held on 6 June 2019, the Applicant has not utilised the existing storage area (which is in addition to the bunker) at RRRF due to operational changes post consent of RRRF.</p>
<p>Schedule 1, Work No. 1 (b)</p>	<p>(b) Work No. 1B — an anaerobic digestion system <u>with a capacity of no more than 40,000 tonnes per annum of input material,</u> including—</p>	<p>The Applicant does not accept this change. First, such a restriction would limit future "recycling" and would therefore be counter-intuitive, and secondly, the environmental effects of the AD plant are not dependent on the waste throughput of the AD plant and such a restriction would prevent the ability to secure improvements and efficiencies for the plant over its lifetime. This is consistent with NPS EN-3 at paragraph 2.5.13, which states that "<i>Throughput volumes are not, in themselves, a factor in [Secretary of State] decision-making as there are no specific minimum or maximum</i></p>

Riverside Energy Park
 Applicant's responses to Written Representations

		<p><i>fuel throughput limits for different technologies or levels of electricity generation. This is a matter for the applicant. However, the increase in traffic volumes, any change in air quality, and any other adverse impacts as a result of the increase in throughput should be considered by the [Secretary of State] in accordance with this NPS and balanced against the net benefits of the combustion of waste....."</i></p> <p>More detail on this matter is provided in the Applicant Responses to ExA First Written Questions (8.02.04, REP2-055) responses to questions 1.0.1, 1.0.2 and 7.0.9 submitted at Deadline 2.</p>
<p>Schedule 1, Work No. 10 (j)</p>	<p>Typographical amendment to (j) – deletion of extra ";"</p>	<p>Amendment made in Rev 2 of the draft Development Consent Order submitted at Deadline 3.</p>
<p>Schedule 2, Pre-commencement biodiversity and landscape mitigation strategy, 4(1)</p>	<p>4.—(1) No part of the authorised development may be carried out until a pre-commencement biodiversity and landscape mitigation strategy, including details of mitigation measures required to protect protected habitats and species during the pre-commencement works, has been submitted to and approved by the relevant planning authority, <u>which includes</u></p> <p><u>(a) the results of the biodiversity off-setting metric together with the value of off-setting required and the nature of such off-setting;</u></p> <p><u>(b) the mechanism for securing the off-setting value and (where appropriate and necessary) any long-term management and monitoring</u></p>	<p>The Applicant does not accept this change.</p> <p>The Applicant will not have the results of the biodiversity off-setting metric at the pre-commencement works stage. Therefore 4(1)(a) cannot be accepted.</p> <p>4(1)(b) is required when the metric is known, which will be post detailed design and hence it is included in Requirement 5.</p> <p>4(1)(c) is also linked to detailed design, and hence is adequately covered in Requirement 5.</p> <p>At Deadline 2, the Applicant updated Requirement 4 so as to require the</p>

Riverside Energy Park
 Applicant's responses to Written Representations

	<p><u>commitments in respect of the off-setting; and</u></p> <p><u>(c) any hard and soft landscaping to be incorporated within Work Nos. 1, 2, 3, 4, 5 and 6 including location, number, species and size.</u></p>	<p>Applicant to provide the value of the habitats affected by the pre-commencement works. That value is then added to the value identified in Requirement 5. Requirement 4 has also been updated so as to provide for a restoration plan in the event that Requirement 5 is not triggered.</p> <p>Following the Hearing on the draft Development Consent Order held on 6 June 2019, the Applicant understands that Requirement 4 is now agreed with LBB and no further amendments are required.</p> <p>At the Hearing the Applicant undertook, following a question by the ExA, to review the wording in Requirement 4 to align it better with Requirement 5. The Applicant has done this and the following wording will now replace the words in 4(2)(b):-</p> <p><i>"the offsetting value of the habitat lost as a result of the pre-commencement works, such offsetting value to be subsequently combined with the offsetting value identified for other habitat losses following detailed design of the authorised development and which is to be set out in the biodiversity and landscape mitigation strategy submitted under requirement 5; "</i></p>
<p>Schedule 2, Ground conditions and ground stability, 10(2)</p>	<p>(2) The report submitted pursuant to sub-paragraph (1) must identify the extent of any contamination and the remedial measures to be taken to render the land fit for its intended purpose, together with a management plan which sets out long-term measures with respect to any</p>	<p>Requirement 10(2) was updated in the Order submitted at Deadline 2.</p> <p>At the Hearing into the draft Development Consent Order held on 6 June 2019, LBB confirmed its approval to the revised Requirement 10.</p>

Riverside Energy Park
 Applicant's responses to Written Representations

	contaminants remaining on the site, <u>and a remediation verification plan.</u>	No further amendment required.
Schedule 2, Code of construction practice, 11(1)	11.—(1) No part of the authorised development may commence until a code of construction practice for that part <u>(including pre-commencement activities)</u> has been submitted to and approved by the relevant planning authority. The code of construction practice submitted for approval must be <u>informed by the results of site investigations and land contamination assessments</u> and <u>be</u> substantially in accordance with the outline code of construction practice to the extent that it is applicable to that part and must include the following	The Applicant considers that effects from pre-commencement works would be limited, but accepts that a Code of Construction Practice, with suitable scope, is acceptable for this phase. Such a Requirement has been included in Rev 2 of the draft DCO for Deadline 3. In respect of the need to consider the outcomes of site investigations and land contamination assessments, this is adequately captured in Requirement 10 and in part (n) of Requirement 11(1).
Schedule 2, Code of construction practice, 11(1)(d)	(d) nuisance management including measures to avoid or minimise the impacts of construction works (covering dust, wheel washing, damping of stockpiles, sheeting materials, lighting, noise and vibration) <u>in accordance with IAQM guidance;</u>	No amendment required - reference to the IAQM guidance is included in the outline CoCP submitted at Deadline 2 (7.5, REP2-046) along with other good practice guidance. The final form of the CoCP must be substantially in accordance with the outline. No amendment required.
Schedule 2, Code of construction practice, 11(1)	Insert a new (n): <u>(n) measures for protection of workers from soil and groundwater contamination and ground gas;</u>	No amendment required – the outline CoCP submitted at Deadline 2 (7.5, REP2-046) already contains reference to protection measures for workers and the protection of human health in section 4.9. The final form of the CoCP must be

Riverside Energy Park
 Applicant's responses to Written Representations

		<p>substantially in accordance with the outline.</p> <p>No amendment required.</p>
Schedule 2, Code of construction practice, 11(1)	<p>Insert a new (o):</p> <p><u>(o) appropriate unexploded ordnance risk mitigation;</u></p>	<p>The Applicant has inserted the following into Rev 2 of the draft Development Consent Order:</p> <p><i>"appropriate procedures to address any unexploded ordnance that may be encountered;"</i></p>
Schedule 2, Code of construction practice, 11(1)	<p>Insert a new (p):</p> <p><u>(p) appropriate spill prevention and response procedures;</u></p>	<p>No amendment required – the outline CoCP submitted at Deadline 2 (7.5, REP2-046) already contains measures for spill prevention and response procedures (e.g. section 2.9, 3.1, 4.7).</p> <p>The final form of the CoCP must be substantially in accordance with the outline.</p> <p>No amendment required.</p>
Schedule 2, Code of construction practice, 11(1)	<p>Insert a new (q):</p> <p><u>(q) site and stockpile management to mitigate contamination of surface water run-off and emission of contaminants in airborne dust;</u></p>	<p>No amendment required – the outline CoCP submitted at Deadline 2 (7.5, REP2-046) already contains measures for soil stockpile management (e.g. 1.3.10, 2.6, 4.3.2, 4.8). In addition Requirement 1(d), (h) and (l) are relevant.</p> <p>The final form of the CoCP must be substantially in accordance with the outline.</p> <p>No amendment required.</p>
Schedule 2, Code of construction practice, 11(1)	<p>Insert a new (r):</p> <p><u>(r) the use of trenchless installation techniques for</u></p>	<p>The Applicant assumes that the inert landfill referred to by LBB is the landfill located in in Dartford Borough, southwest of the crossing</p>

Riverside Energy Park
 Applicant's responses to Written Representations

	<p><u>cable laying within the area of the former historic landfill, in the event that the cable route should lie within this area;</u></p>	<p>of the River Darent.</p> <p>This is the only inert landfill on which the application boundary is known to impinge. The submitted Works Plans (2.2, Rev 1, Sheet 13, REP2-004) identify this location as only being permitted to undertake Work No. 9(d) which comprises temporary construction compounds only. This means that trenchless installation could not occur there, such that the integrity of the landfill would be maintained. In light of the specific nature of works included at application submission, the Applicant does not accept the proposed change.</p> <p>No amendment required.</p>
<p>Schedule 2, Code of construction practice, 11(1)</p>	<p>Insert a new (s):</p> <p><u>(s) mitigation measure for piling;</u></p>	<p>From LBB's WR, it is understood that this matter only arises in respect of groundwater and watercourses.</p> <p>Nevertheless, measures in respect of noise, vibration, arisings and other matters related to piling works are addressed adequately by other parts of Requirement 11 and within the Outline CoCP (7.5, REP2-046).</p> <p>In respect of groundwater and watercourses, these are adequately addressed in paragraph 4.9.3.</p> <p>No amendment required.</p>
<p>Schedule 2, Ambient air quality monitoring, 11A</p>	<p>New Requirement – Ambient air quality monitoring</p> <p><u>11A.—(1) Prior to the date of final commissioning, a plan for continuous ambient air quality monitoring to confirm the</u></p>	<p>The Environmental Permit will condition the emission limits which the ERF and the AD plant will be required to comply with. In its Environmental Permit application, the Applicant has applied for the same</p>

Riverside Energy Park
 Applicant's responses to Written Representations

	<p><u>absence of significant air quality impacts must be submitted to and approved by the relevant planning authority, using the most recent published Damage Costs for air pollution published by the UK government as the basis for specifying an appropriate air quality monitoring budget.</u> <u>(2) The ambient air quality monitoring plan must be implemented as approved.</u></p>	<p>limits as set out in the Application which are the upper range of the draft BREF limits. This is the case for all emissions, except for NOX which, due to the Applicant's investment in abatement technology, is significantly lower than the upper range. The Application assessed a daily mean emission of 120, whereas the Environmental Permit application has applied for 75. This is explained in the Environmental Permit and Air Quality Note (8.02.06, REP2--57).</p> <p>Given the Environment Agency requires the ERF to have continuous emissions monitoring, and as it is the Environment Agency that can properly enforce the emission limits, it is not appropriate for the Development Consent Order to duplicate the Environmental Permitting regime (as indeed is accepted by the NPS).</p> <p>Accordingly, no amendment required.</p>
<p>Schedule 2, Construction traffic management plan(s), 13(1)(d)</p>	<p>Insert new (d): <u>(d) measures to ensure maximum use of the river for transportation of the materials used in the construction of the authorised development;</u></p>	<p>The outline Construction Traffic Management Plan (Appendix L to Appendix B.1, Rev 1) references the ability to move materials by river where opportunities are viable, efficient and safe. Given the jetty is utilised for RRRF, there is a need to ensure that the use of the jetty for construction does cause undue disrupt the operation of RRRF.</p> <p>The final form of the CTMP must be substantially in accordance with the outline.</p> <p>No amendment required.</p>
<p>Schedule 2, Employment and</p>	<p><u>Employment and skills plan 14A.—(1) Prior to the commencement of</u></p>	<p>The Applicant included Requirement 18 requiring the submission of an employment and skills plan. LBB</p>

Riverside Energy Park
 Applicant's responses to Written Representations

<p>skills plan, 14A (New insertion by LBB)</p>	<p><u>construction, an employment and skills plan must be submitted to and approved by the relevant planning authority that optimises the employment and skills opportunities of the construction and operation of the authorised development.</u> <u>(2) The employment and skills plan must be implemented as approved.</u></p>	<p>confirmed at the Hearing into the draft Development Consent Order held on 6 June 2019, that they agreed to Requirement 18.</p> <p>No amendment required.</p>
<p>Schedule 2, Control of operational noise,15A (New insertion by LBB)</p>	<p>Control of operational noise 15A. — (1) The authorised development must not be commissioned until a written programme for the monitoring and control of noise during the operation of the authorised development has been submitted to and approved by the relevant planning authority. (2) The programme submitted and approved must specify— (a) each location from which noise is to be measured; (b) the method of noise measurement, which must be in accordance with British Standard 4142:2014; (c) the maximum permitted levels of noise at each monitoring location; and (d) provision requiring the undertaker to take noise measurements as soon as possible following a request by the relevant planning authority and to submit the measurements to the relevant planning authority as soon as they are available. (3) The level of noise at each</p>	<p>The conclusions of the Environmental Statement are that there are no likely significant effects as a result of operational noise on sensitive receptors.</p> <p>Accordingly, a requirement controlling noise is not necessary in order to make REP acceptable in planning terms.</p> <p>No amendment required.</p>

	<p>monitoring location must not exceed the maximum permitted level specified for that location in the programme, except—</p> <p>(a) in the case of an emergency,</p> <p>(b) with the prior approval of the relevant planning authority, or</p> <p>(c) as a result of steam purging or the operation of emergency pressure relief valves or similar equipment of which the undertaker has given notice in accordance with subparagraph (4).</p> <p>(4) Except in the case of an emergency, the undertaker must give the relevant planning authority 48 hours' notice of any proposed steam purging or operation of emergency pressure relief valves or similar equipment.</p> <p>(5) So far as is reasonably practicable, steam purging and the operation of emergency pressure relief valves or similar equipment may only take place—</p> <p>(a) between 0900 and 1700 hours on weekdays (excluding bank holidays);</p> <p>(b) between 0900 and 1300 hours on Saturdays (excluding bank holidays).</p> <p>(6) Where the level of noise at a monitoring location exceeds the maximum permitted level specified for that location in the programme because of an emergency—</p> <p>(a) the undertaker must, as soon as possible and in any event within two business</p>	
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Riverside Energy Park
 Applicant's responses to Written Representations

	<p>days of the beginning of the emergency, submit to the relevant planning authority a statement detailing—</p> <p>(i) the nature of the emergency, and</p> <p>(ii) why it is necessary for the level of noise to have exceeded the maximum permitted level; and</p> <p>(b) if the undertaker expects the emergency to last for more than 24 hours, it must inform local residents and businesses affected by the level of noise at that location of—</p> <p>(i) the reasons for the emergency; and</p> <p>(ii) how long it expects the emergency to last.</p>	
<p>Schedule 2, Combined heat and power, 17(2)(a)</p>	<p>"reasonably" before "that exist" in (a)</p>	<p>The Applicant does not accept this change. Opportunities that exist must be reasonable in terms of their distance, heat demand, phasing and ability to connect. It would be unreasonable to require the Applicant to cyclically consider every possible heat opportunity rather than those being brought forward through established mechanisms such as the Bexley Energy Masterplan and associated working groups. The Applicant is a very active member and has a commercial imperative to realise value from the waste heat produced by the combustion process.</p> <p>The wording in Requirement 20 follows that which was recently approved by the Secretary of State in the Eggborough Gas Fired Generating Station Order 2018, Requirement 28.</p>

Riverside Energy Park
 Applicant's responses to Written Representations

		No amendment.
Schedule 2, Combined heat and power, 17(2)(b)	(b) include a list of actions (if any) that the undertaker is reasonably required to take (without material <u>unreasonable</u> additional cost to the undertaker) to increase the potential for the export of heat from Work No. 1.	<p>The Applicant has amended Requirement 20 to include a requirement to install the plant and pipework to the site boundary once the required sizing details of the district heat network are known. This is separate to the list of actions in Requirement 20(2)(b), which means it is not subject to the "material additional cost" reference in Requirement 20(2)(b). This was a specific request at the DCO Hearing, and the Applicant is content to make this amendment.</p> <p>The wording in Requirement 20 follows that which was recently approved by the Secretary of State in the Eggborough Gas Fired Generating Station Order 2018, Requirement 28.</p> <p>No amendment.</p>
Schedule 2, Combined heat and power, 17(4)	(4) On each date during the operation of numbered work 1 that is five two years after the date on which it last submitted the CHP review or a revised CHP review to the relevant planning authority, the undertaker must submit to the relevant planning authority for its approval a revised CHP review.	<p>Requirement 20(4) currently provides for on-going review every 5 years. The Applicant chose this on the basis that the current studies undertaken have taken approximately 24 months. The Applicant has amended 5 years to 4 years which will allow sufficient time for a study (which is also a horizon watching study) to be undertaken before the next one is triggered. The contents of the CHP review is contained in Requirement 20(2).</p> <p>Four years also follows the recently approved Eggborough Gas Fired Generating Station Order 2018, Requirement 28 (CHP).</p>

Riverside Energy Park
 Applicant's responses to Written Representations

<p>Schedule 2, Transport, 17A (New insertion by LBB)</p>	<p>Transport 17A.— (1) No more than 65,500 tonnes of materials used to supply the operation of the authorised development may be transported to it by road per annum, and 100% of bottom ash and commingled metals produced by the operation of the authorised development must be transported from it by river to a riparian transfer station, except in the case of emergency. (2) Except in the case of a jetty outage, no more than 30 two-way vehicle movements (one vehicle in and one vehicle out) made by commercial vehicles transporting waste to the authorised development may be made per day. (3) In the case of a jetty outage, the number of commercial vehicles transporting waste to the authorised development in peak hours along Norman Road shall be restricted as follows: between 0730-0900 hours a maximum of 30 vehicle movements two-ways; between 1630-1800 hours a maximum of 30 vehicle movements two-ways and subject to there being a maximum of 300 vehicle movements two-ways between 0000 hours and 2400 hours on any day.</p>	<p>Requirement 14 of Rev 1 of the draft Development Consent Order (REP-006), places a restriction on the number of heavy commercial vehicles delivering waste to the ERF, being 90 in and 90 out. This has been further amended to include the delivery of waste to the anaerobic digester. Further, the Applicant has updated Requirement 14 to remove the ability of the ERF using any surplus road transport movements from the existing RRRF facility. This amendment is made in Rev 2 of the draft Development Consent Order submitted at Deadline 3. This will mean that the overwhelming majority of waste will be delivered by River to the ERF.</p> <p>Requirement 14 requires all bottom ash to be transported by River, except in a jetty outage.</p> <p>Sub-paragraph (3) is included in Requirement 14.</p>
<p>Schedule 2, Delivery and</p>	<p><u>Delivery and Servicing Plan</u> <u>17B. (1) No part of the</u></p>	<p>The Applicant does not accept this amendment.</p>

Riverside Energy Park
 Applicant's responses to Written Representations

<p>servicing plan, 17B (New insertion by LBB)</p>	<p><u>authorised development may commence until a delivery and servicing plan has been submitted to and approved by the relevant planning authority. The delivery and servicing plan must include the following –</u> <u>(a) a cap on vehicle movements made by vehicles accessing the authorised development per day;</u> <u>(b) measures to ensure efficiency of the site and reduction in vehicle numbers;</u> <u>and</u> <u>(c) an assessment of how the authorised development accords with best practice guidance published by TfL.</u> <u>(2) The delivery and servicing plan must be implemented as approved.</u></p>	<p>Regarding (a), this is unworkable. Given there is an Operational Worker Travel Plan (Requirement 15), we presume that (a) is dealing with non-workers - so visitors, deliveries, maintenance. It is simply not practical to have a cap, or indeed reasonable and enforceable to have one. There is no justification.</p> <p>Regarding (b) such measures are contained in the outline Operational Worker Travel Plan (Appendix M to Appendix B.1 (APP-066)).</p> <p>Regarding (c) this is covered by the Operational Worker Travel Plan (Appendix M to Appendix B.1 (APP-066))</p>
<p>Schedule 2, Decommissioning, 18(1)</p>	<p>18.—(1) Before Within 24 months of the permanent cessation of the operation of the authorised development, details of a scheme for the restoration and aftercare of the land for Work No.1 must be submitted to and approved by the relevant planning authority. The scheme must include details of structures and buildings to be demolished or retained, details of the means of removal of materials following demolition, phasing of demolition and removal, details of restoration works and phasing thereof.</p>	<p>The Applicant's 24 month period is appropriate for the Applicant to properly consider and prepare a plan, taking account of all the opportunities that might exist at the point of time that the cessation becomes permanent.</p> <p>24 months has been approved in numerous Orders, including the North London Heat and Power Generating Station Order 2017 and the Millbrook Gas Fired Generating Station Order 2019</p> <p>No amendment.</p>