Riverside Energy Park

Oral Summaries for Issue Specific Hearing on Environmental Matter

VOLUME NUMBER:

08

PLANNING INSPECTORATE REFERENCE NUMBER:

EN010093

DOCUMENT REFERENCE:

8.02.19

June 2019 | Revision 0 (Deadline 3) | APFP Regulation 5(2)(q)

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

CORY
RIVERSIDE ENERGY

RIVERSIDE ENERGY PARK ("REP")

WRITTEN SUMMARY OF THE APPLICANT'S ORAL CASE PUT AT THE ISSUE SPECIFIC HEARING ON ENVIRONMENTAL MATTERS

WEDNESDAY 5 JUNE 2019 at 10:00am

1. BACKGROUND

1.1 The Issue Specific Hearing ("**ISH**") on environmental matters was held on 5 June 2019 at 10:00am at Slade Green Community Centre, Chrome Road, Erith, DA8 2EL.

1.2 The ISH followed the agenda published by the Examining Authority ("**ExA**") on 28 May 2019 ("**the Agenda**").

2. AGENDA ITEM 1 – INTRODUCTION

2.1 The ExA: Jonathan Green.

2.2 The attendees at the ISH on behalf of the Applicant:

2.2.1 Speaking on behalf of the Applicant: - Richard Griffiths and Emma Harling-Phillips (Partners, Pinsent Masons LLP) and Andy Pike (Director, the Applicant).

2.2.2 Present from the Applicant: Richard Wilkinson (Head of Planning and Development, the Applicant), Thomas Edwards and Tamara Al-Khayat (Solicitors, Pinsent Masons LLP), Rob Gully (Associate, PBA), Natalie Maletras (Senior Associate, PBA), Sarah Chandler (Principal Infrastructure Planner, PBA) and Claire Sorrin (Senior Environmental Planner, PBA).

2.2.3 The Applicant's consultants and specialist advisors in attendance:

(a) Kirsten Berry (Director, Hendeca) in relation to waste management and need;

(b) Stephen Othen (Technical Director, Fichtner Consulting Engineers Limited) in relation to carbon and health effects;

(c) Ryan Barker (Associate Senior Consultant, Fichtner Consulting Engineers Limited) in relation to carbon and Combined Heat and Power ("**CHP**");

(d) Graham Harker (Senior Managing Consultant, Ramboll UK Ltd) in relation to air quality;

(e) Lucy Whitter (PBA) in relation to the Health Impact Assessment;

(f) Mathew Barlow (PBA) in relation to noise and vibration;

(g) Duncan McLaughlin (Associate Ecologist, PBA) in relation to biodiversity;

(h) Louise Martland (Conservation Director, Environment Bank) in relation to biodiversity off-setting;

(i) Natasha Jones (Senior Associate - Landscape Planning PBA) in relation to visual impact;

(j) Adrian Neve (Senior Associate, PBA) in relation to traffic and transport; and

(k) Stuart Harwood (PBA) in relation to flood risk.

2.3 The following parties participated in the ISH:

2.3.1 David Wilson on behalf of Thames Water;

2.3.2 Karen Sutton on behalf of Thames Water;

2.3.3 Ray Gray on behalf of Bexley Natural Environment Forum ("**BNEF**");

2.3.4 Mark Ansell on behalf of London Borough of Havering ("**LB Havering**");

2.3.5 Caroline Daly of counsel (Francis Taylor Building), Ben Stansfield (Ricardo Consultancy) and Michael Kiely (planning consultant) on behalf of London Borough of Bexley ("**LBB**");

2.3.6 Andrew Tait QC and Michael Fry of counsel (Francis Taylor Building) for Greater London Authority ("**GLA**") and Transport for London ("**TfL**") and Douglas Simpson (principal programme officer for waste), Peter North (adviser on technical energy), Steve Moorcroft and Steven Inch (regarding air quality) on behalf of GLA. Tim De Laat on behalf of TfL;

2.3.7 Andrew Clarke on behalf of Arriva;

2.3.8 Councillor Dave Putson; and

2.3.9 Councillor Borella.

3. AGENDA ITEM 2 – UPDATE FROM THE APPLICANT ON CHANGES TO THE APPLICATION AND STATEMENTS OF COMMON GROUND

Ref	Issue raised by the ExA	Applicant's Response
1	Changes to the application	1.1 Mr Griffiths explained that three main refinements were made to the Application at Deadline 2, being: 1.1.1 **Selection of the Electrical Connection route** as shown in Appendix A to the **Electrical Connection Progress Report** submitted at Deadline 2 **(8.02.07, REP2-058)**. The Applicant has been working closely with UKPN to refine the options presented at submission of the Application to a single route that is economic and efficient, having regard to UKPN's statutory duties under section 9 and schedule 9 of the Electricity Act 1989. The Electrical Connection route as refined at

Ref	Issue raised by the ExA	Applicant's Response
		Deadline 2 is: (a) Removal of the cable route through the Thames Water owned Crossness Local Nature Reserve (LNR) (as shown hatched blue on **Sheets 2** and **3** in **Appendix A** to the **Electrical Connection Progress Report (REP2-058)**); (b) Avoidance of single carriage way roads – a shorter cable route is secured along the A206 (Bronze Age Way, into Queens Road into Northend Road into Thames Road and into the beginning of Bob Dunn Way (as shown hatched blue on **Sheets 4, 5, 6, 7, 8, 10** and **11** in **Appendix A** to the **Electrical Connection Progress Report (REP2-058)**); (c) Removal of the public open space at the River Cray Crossing. The Order limits have also been reduced at the Site of Nature Conservation Importance south of Thames Road (as shown hatched blue on **Sheet 12** in **Appendix A** to the **Electrical Connection Progress Report (REP2-058)**); (d) The Order limits north and south of the highway at the River Darent and West Kent Sewer have been significantly reduced (as shown hatched blue on **Sheet 13** in **Appendix A** to the **Electrical Connection Progress Report (REP2-058)**); and (e) Removal of the route at the roundabout at Joyce Green Lane, where it now instead goes to the north and east to Littlebrook substation (as shown hatched blue on **Sheets 14** and **15** in **Appendix A** to the Electrical Connection Progress Report

Ref	Issue raised by the ExA	Applicant's Response
		(REP2-058)). 1.1.2 **The Main Temporary Construction Compound** – this was originally on plots 02/53 and 02/55 on the **Land Plans (2.1, APP-007)**. Since the Application was submitted, the Applicant has been in discussions with the owner of these plots. Following the delay in the delivery of the Data Centre that is consented on plots 02/44 and 02/49, the Applicant has been able to revisit what can be achieved on plots 02/43, 02/44, 02/48 and 02/49. The Applicant has now made a decision to move the Main Temporary Construction Compound to these adjacent plots, which are owned by the Applicant/in the ownership of a Cory Group company to which the Applicant belongs. Therefore, plots 02/53 and 02/55 have been removed from the Order limits and the Order land. The Applicant also confirmed, following a question from the ExA, that plots 02/52 and 03/05 are not in the ownership of the Applicant, although the Applicant has a lease over plot 03/05. 1.1.3 **The River Thames** – following discussions with the Port of London Authority ("**PLA**"), the Applicant reduced the Order limits in relation to the River Thames. However, part of the River Thames is still included in the Order limits to allow works to the river wall to be carried out. The reduction in the Order limits was done in conjunction with the PLA and a **signed SoCG with the PLA** submitted at Deadline 2 (**REP2-052**) highlights the agreement on the reduction of the Order limits. 1.2 Mr Griffiths confirmed that all changes to the Order limits and Order land are shown in the revised **Land Plans (2.1, REP2-003)**, **Work Plans (2.2, REP2-004)** and **Access and Public Rights of Way Plans (2.3, REP2-005)**. The **draft Development Consent Order (dDCO) (3.1, REP-007)** has been updated to

Ref	Issue raised by the ExA	Applicant's Response
		reflect this, as well as the **Statement of Reasons (4.1, REP2-008)** and the **Book of Reference (4.3, REP2-010)**.
2	Updates to SoCG with Historic England	Signed SoCG was submitted prior to the start of examination in April 2019 **(8.01.01, AS-013)**.
3	Updates to SoCG with Natural England	Signed SoCG was submitted at Deadline 2 **(8.01.05, REP2-051)**.
4	Updates to SoCG with PLA	Signed SoCG was submitted on 31 May 2019 **(8.01.07)**.
5	Updates to SoCG with LBBD	Signed SoCG was submitted on 31 May 2019 **(8.01.08)**.
6	Updates to SoCG with Dartford Borough Council	Agreed final draft submitted at Deadline 2 **(8.01.02, REP2-048)**.
7	Updates to SoCG with Kent County Council	An advanced draft SoCG was submitted at Deadline 2 **(8.01.04, REP2-050).**
8	Updates to SoCG with Environment Agency (EA)	An advanced draft SoCG was submitted at Deadline 2 **(8.01.03, REP2-049)**.
9	Updates to SoCG with LBB	A SoCG is being progressed with LBB, with extensive discussions underway.
10	Updates to SoCG with GLA and TfL	A SoCG is being discussed with the GLA and TfL. A meeting was held with TfL on 31 May 2019. The Applicant has requested a further meeting on 17 June with TfL. A response is awaited.

Ref	Issue raised by the ExA	Applicant's Response
11	Updates to SoCG with Friends of Crossness Nature Reserve	The Applicant has approached the Friends of Crossness Nature Reserve to see whether a SoCG can be progressed.

4. AGENDA ITEM 3 – ISSUES RELATING TO WASTE MANAGEMENT

Ref	Issue raised by the ExA	Applicant's Response
12	Projected volume of waste available for incineration	12.1 The ExA stated that the National Policy Statement ("**NPS**") requires that only waste that cannot be reused and recycled should be used in recovery, and that this is the test that has to be met by the Applicant. The ExA identified a lack of clarity about the types of waste mentioned and asked for clarification on the numbers in Table 2 of the **GLA's Written Representation (REP2-071)** and for the Applicant to confirm if these are the figures used in their documents. 12.2 Miss Berry, on behalf of the Applicant, explained that there are various terms used to describe different types of waste. Municipal waste is a term that comes from the European Framework Directive, which relates to household waste and wastes akin to household waste. Household waste is collected by Local Authorities ("**LAs**"). However, LAs also collect waste generated by local, typically often smaller, businesses. Together, these wastes are known as Local Authority Collected Waste ("**LACW**"). Otherwise, waste generated by business and industry is generally collected through private contract with the operators within the waste management industry and is referred to as commercial and industrial ("**C&I**") waste.

Ref	Issue raised by the ExA	Applicant's Response
		12.3 Miss Berry explained that the types of waste are relevant in that they are used separately and collectively throughout the documents in understanding how much waste is available. For example, the adopted London Plan has separate recycling targets in policy for LACW and C&I waste, the draft London Plan policy seeks to achieve 65% recycling across municipal waste, whilst the draft London Plan evidence base refers to household waste which is the greater proportion of, but not all of, LACW. Table 2 from the GLA's Written Representation (REP2-071) uses both – the top line refers to household and C&I. Municipal waste is the waste that is to be accepted by REP, which will not process other categories of waste (such as construction and demolition waste). Regarding the Table 2 figures, taking the left hand column of figures for years 2031 and 2036 they are in large part the figures presented in what the Applicant calls 'Scenario 1' in its London Waste Strategy Assessment contained in Annex A to the Project and its Benefits Report (7.2, APP-103). The arisings in 2031 and 2036 are those arisings which are forecast within the draft London Plan evidence base. They are for household waste only, not all waste collected by LAs, whilst the C&I waste arisings are taken from survey data collected by DEFRA in 2009. The GLA has taken historical household waste data and C&I data (from the 2009 Survey) and then undertaken its own forecasting on how much that waste may grow over the plan period and those forecasts include the expectation that each waste stream will reduce by 5% over time. The Applicant considers this to represent the minimal expectation of forecast waste arisings, it does not account for known waste arisings in 2016/17. 12.4 Referring to Table 2 in the GLA Written Representation, under the heading "Cory projections", these are the Applicant's projections taking the figures presented in the draft London Plan and applying the recycling rates sought by policy (60% and

Ref	Issue raised by the ExA	Applicant's Response
		70% respectively) to come to a residual waste figure that is suitable for processing by incineration. The Applicant has then subtracted the available EfW capacity (noting that this includes capacity operating both within and outside of London that takes waste generated within London) to produce a figure in the bottom row which represents the remaining need for additional residual waste treatment capacity. However, it should be noted that this figure, being based on the continued acceptance of waste from London by facilities outside the capital, does not align with the policy within the London Plan for net self-sufficiency within London, nor the latest figures for waste arisings from 2016/17. The Applicant's projections, which do account for these factors, consistently show a demand for c. 900,000 tonnes of residual treatment capacity in London. Table 2 not only does not comply with the adopted and draft London Plan policy, but also applies the most conservative assumptions, which both the Applicant and respected waste consultants, Tolvik, agree is unrealistic. 12.5 The Applicant is not aware of where the figures used in the GLA's projections are gained from as they do not appear in the draft or adopted London Plan policies or the London Environment Strategy ("**LES**") or the relevant evidence base documents. The Applicant has requested sight of the GLA's modelling, but to date this has not been provided. 12.6 The ExA asked how the Applicant gets from the bottom line of 272,000 tonnes to the 900,000 tonnes that the Applicant is stating is needed. 12.7 Miss Berry explained that this is set out in the London Waste Strategy Assessment ("**LWSA**") which has been submitted at Annex A of the Project and its Benefits Report (7.2, APP-103). The LWSA for the Proposed Development specifically addresses policy requirements in paragraph 2.5.70 of NPS EN-3 and

Ref	Issue raised by the ExA	Applicant's Response
		has been prepared using relevant data and policy priorities from the London Plan, draft London Plan and the LES. Within the LWSA, the forecast waste arising figures have been updated with actual figures for LACW for 2016/17 (this information is publicly available, and collected by DEFRA through a system called WasteDataFlow). The DEFRA collected figures demonstrate that an additional c.600,000 tonnes of LACW was collected by LAs in 2016/17, than was forecast for that year in either the adopted or draft London Plan. The Applicant recognises that LACW does include some element of C&I waste (described in WasteDataFlow as non-household waste). To avoid any risk of double counting those wastes, the Applicant subtracted the tonnage of non-household waste from the C&I waste forecasts presented in the adopted and draft London Plans. Furthermore, Miss Berry explained that the Applicant's LWSA makes no other change to the GLA's forecast tonnages. As such, the GLA's assumption that there will be a 5% reduction in waste by 2031 is maintained in the LWSA. 12.8 The ExA asked if over time the total amount of waste is expected to rise because of the increase in population, but is offset because more is being recycled. 12.9 Miss Berry confirmed that the Applicant has only changed the baseline to reflect the tonnage of LACW actually produced in 2016/17, by reference to the DEFRA figures, which therefore reflects the most up to date position. The additional c. 600,000 tonnes seen in 2016/17 was simply added to the future forecasts, with no other changes made. The forecast arisings are simply that, an estimate of how much waste might be generated in the future, incorporating an expectation that they will reduce by 5% over time. The level of recycling achieved in each waste stream is the next step to be considered, but recycling does not affect the amount of waste forecast to arise. The different scenarios assessed in the LWSA subsequently apply the recycling targets as set out in the adopted London Plan,

Ref	Issue raised by the ExA	Applicant's Response
		the draft London Plan and the LES. The Proposed Development is expected to work alongside the target of increasing recycling in London. The current rate is around 45%, policy is based on an increase to 65% by 2030. 12.10 The LWSA considers future capacity demand with London's waste being processed by plants (1) within and outside London and (2) only within London. Miss Berry explained that REP is a strategic facility and a NSIP, ideally located on the River Thames, such that there is no justification for waste not to come into the facility from outside of London. If a scenario is considered whereby the facility accepts waste from authorities outside of London, but with good connections to REP, then there is at least 1.5 million tonnes of residual waste that should also be diverted from landfill. That is based on the figures reported within the relevant policy documents and annual monitoring reports prepared by the relevant waste planning authorities. 12.11 Mr Simpson, on behalf of the GLA, confirmed that Table 2 of the GLA WR (contrary to the title) is for both non-recycled household and C&I waste. In response to a query from the ExA, the GLA maintained that the difference between the Applicant's assessment and the GLA's is for two reasons (1) GLA has determined that only 80% of C&I waste is suitable to be processed in an EfW facility, whereas the Applicant has assumed all household and C&I waste after recycling would be suitable for incineration and (2) different recycling rates have been applied. 12.12 However, Miss Berry confirmed that the figures used in the GLA's projections in Table 2 (2.25 and 2.3 million tonnes for 2031 and 2036 respectively) do not appear anywhere in the London Plan or LES or their evidence base documents. The Applicant has tried to calculate them, applying the GLA's assumption of 80%

Ref	Issue raised by the ExA	Applicant's Response
		C&I waste appropriate for EfW but is not able to replicate them. If you look at the Applicant's projections from Scenario 1 (taken from the draft London Plan evidence base, the Task 3 Report, and not incorporating actual arisings) and apply the GLA's 80% assumption, you get 2.32 million tonnes in 2036. Whilst close to the GLA's figure, the figure of 2.32 million tonnes is for all waste remaining after recycling, not just C&I wastes. In addition, Miss Berry confirmed that the Applicant has applied the recycling rates as set out in policy. If the Applicant's scenario 3b is considered, a 75% recycling rate has been applied, which results in a need for c.900,000 tonnes of capacity if London is also to achieve net self-sufficiency. 12.13 The ExA asked the GLA which definitive targets he should be utilising. Mr Simpson stated that he will provide a clear summary table of the London Plan and the LES. 12.14 Miss Berry explained that the LES is not part of the development plan. There are a number of different scenarios presented in the LES to consider how the draft London Plan policy target of 65% municipal waste recycling can be achieved. The LES promotes 50% household waste recycling with 75% C&I waste recycling. Figure 69 of the LES evidence document sets out how that 50% household waste recycling can best be delivered, and identifies (at Table 69) a 7.8% gap in achieving that rate. This demonstrates the level of uncertainty in the future. Despite this uncertainty, the Applicant assumes within the LWSA that it will be achieved, and still concludes a substantial need for REP. The approach from the GLA is to try and squeeze future forecasts down to the minimum which potentially leaves London without the infrastructure it requires and without the benefits that will result from REP. The NPS also recognises uncertainty and the consequent

Ref	Issue raised by the ExA	Applicant's Response
		need to plan for it and to bring forward additional capacity. 12.15 Mr Griffiths referred to the Resource and Waste Strategy, the most recent waste strategy published by Government in December 2018, noting that page 78 of the Evidence Annex identifies that the risk of a gap in capacity is still relevant, as projections on future capacity, exports and arisings are subject to uncertainty. Paragraph 2.5.13 of NPS EN-3 states that "*Throughput volumes are not, in themselves, a factor in IPC 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*." Further, paragraph 3.3.24 of NPS EN-1 makes clear 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*." This is a question for the Applicant and is a market led position. 12.16 Mr Simpson, for the GLA, expressed a concern that the Tolvik figures relied upon by the Applicant are predicting estimates on the basis of London failing to meet its recycling targets, whereas the focus needs to be on reduction and recycling. However, Miss Berry clarified that that was not the case. The Assessment presented by the Applicant (the LWSA) incorporates the GLA's baseline forecast arisings, which expect waste arisings to reduce over time. The LWSA expects that the recycling policies in the adopted and draft London Plan and the LES will be achieved. Assuming all policies are achieved, including the priority of net self-sufficiency, the Applicant identifies a remaining need for c. 900,000 tonnes of additional capacity, in London (before need in the South East is considered). In relation to the Tolvik figures, Miss Berry explained that the GLA and the Applicant are looking at different scenarios. The GLA's focusses on the scenario resulting in the lowest figures, an outcome reliant on continuing to export 3.2 million tonnes of residual waste from UK to Europe, thereby losing an opportunity for that residual

Ref	Issue raised by the ExA	Applicant's Response
		waste to be used as an energy source. The Applicant reminded the ExA that Tolvik itself has responded to this point at Appendix A to the Supplementary Report to the Project and its Benefits Report (7.2.1, REP2-045). 12.17 The ExA asked the GLA to present their latest figures in a comment at Deadline 3. 12.18 Mr Pike, for the Applicant, explained that whilst the figures being discussed are based on forecast numbers 12 and 17 years away, it is helpful to be reminded of the current position in relation to London's waste. From evidence and reports that the Applicant has submitted it has demonstrated that in 2017 London produced 4.4 million tonnes of residual waste for disposal. 34% of that material is currently sent to Landfill (being 1.5 million tonnes) and will continue to do so unless new infrastructure is built. 19% (being 836,000 tonnes) of the material is currently exported overseas to Europe. Those landfill sites can be up to 80 miles outside of London and by 2025 only 2 of the 11 landfill sites are forecast to be in operation, the others having closed. Therefore, there is a clear waste infrastructure gap in London. Almost 2.4 million tonnes of waste is going outside of London to landfill, EfW or overseas. Between now and 2025 when the Applicant's Proposed Development will be operational, there is estimated to be an additional 7.5 million tonnes of waste going to landfill, this is based on extrapolating the 1.5 million tonnes currently being sent to landfill for 5 years to 2025. 12.19 Mr Griffiths concluded that the Proposed Development is meeting the NPS requirement of transitioning to a low carbon economy. Whilst the Applicant's Assessment (the LWSA) does not rely on the London Plan and LES recycling targets not being met to demonstrate the need for residual capacity, if those targets are not met and there is no capacity provided from projects such as REP,

Ref	Issue raised by the ExA	Applicant's Response	
			waste will have to be sent to landfill, overseas or to other facilities with higher carbon emissions.
13	Position in the waste hierarchy of the EfW plant and the anaerobic digester	13.1	The ExA questioned what assurance there is that only waste that cannot be recycled will go to the ERF element of REP.
		13.2	The first key point is that the ERF at REP will recover energy from waste. In addition, the Incinerator Bottom Ash ("**IBA**") recovered post-combustion is recycled (with the glass) as construction fill, with metal extracted and recycled. The Air Pollution Control Residue ("**APCR**") is also recycled, into building blocks. The use of this material not only contributes to the circular economy, but also avoids the impacts associated with extracting virgin materials for use in the construction industry. The ERF at REP is therefore higher in the waste hierarchy than disposal. There is also a carbon benefit over landfill.
		13.3	Mr Othen, for the Applicant, explained that the assurance is found in the Environmental Permit ("**EP**") application submitted to the Environment Agency ("**EA**") at the end of last year, which is currently going through determination. A decision is hopefully expected in September or October 2019.
		13.4	Mr Othen explained that there are two primary European Waste Catalogue ("**EWC**") Codes that REP will accept: 20 03 01 (being residual waste) and 19 12 10 (being combustible material left after the treatment of waste). Other potential waste may come into REP, some of which is not residual waste, but the EA has a standard permit template that will apply to the REP site. This template includes specific conditions which deal with when the ERF is allowed to accept waste. The

Ref	Issue raised by the ExA	Applicant's Response
		condition requires that waste can only be accepted if (a) its waste code is in the list of acceptable waste codes; (b) the waste being supplied has been checked to ensure that it is what the code states it to be and (c) that if it has been separately collected for recycling it is unsuitable for recovery by recycling (for example where it is unsuitable for recycling due to contamination). This is the core protection provided by the EP which restricts the types of waste coming into the ERF and requires checks to ensure that only appropriate waste is coming into the ERF. 13.5 The ExA asked if 'black bag' waste is not individually assessed because the Applicant is relying on households to carry out their sorting. 13.6 Mr Othen stated that to an extent it is correct that energy from waste plant operators assume that black bags from LAs are correctly sorted. This assumption is based on the LAs carrying out their duty of care to deal with the waste arisings, minimise waste and recycle what can be recycled. 13.7 Miss Berry explained that the implementation of the waste hierarchy requires all parties to play their part and separate the waste in their possession. A key driver for this is cost. The Project and its Benefits Report (7.2, APP-103) highlights that research undertaken by WRAP consistently shows that technology for recycling waste is cheaper than incineration of waste. It is a commercial driver for businesses to recycle waste and for the LAs to encourage householders to recycle their waste. The other assurance is to look at the Applicant's LWSA in Annex A to the Project and its Benefits Report (7.2, APP-103), where 65% recycling rates are expected to be achieved and what is remaining after that is what the Applicant then assumes is available for REP. The Applicant expects REP to work alongside increased recycling going forward, and this expectation that 65% recycling will be achieved is built into the LWSA. Miss Berry also

Ref	Issue raised by the ExA	Applicant's Response
		explained that the other element of this question is the use of materials post combustion. The IBA recovered post-combustion is recycled (with the glass) as construction fill, with metal extracted and recycled. The APCR is also recycled, into building blocks. The use of this material not only contributes to the circular economy, but also avoids the impacts associated with extracting virgin materials at quarries for use in the construction industry. 13.8 The ExA questioned who is responsible for the waste at the appropriate point of the waste hierarchy. The ExA appreciated that there will be checks on the Applicant through the EP, but questioned if there is any responsibility further up the line that the waste handlers, who the Applicant are accepting the waste from, have carried out their checks. 13.9 Mr Pike, for the Applicant, explained that everyone is responsible for classifying waste appropriately under their duty of care. The LA has a duty to check householders' waste. The Applicant has a duty to check that waste is given the correct European Waste Catalogue Code ("**EWC**") and to put in place duty of care measures to ensure that waste brought in is checked and is as defined in the waste transfer notes. The Applicant carries out random checks on waste transfer vehicles and ensures there are processes in place to check the waste that is coming into the ERF. Further information on the duties of care that apply to the sorting of waste will be provided by the Applicant and submitted into the Examination. 13.10 The ExA asked what penalties there are. Mr Othen, for the Applicant, explained that there are fines and enforcement actions that can be taken, with a range of sanctions escalating from fines to temporary suspension, with the ultimate penalty being the loss of the EP. Mr Pike explained that if the EA inspected REP and

Ref	Issue raised by the ExA	Applicant's Response
		suspected that waste is being classified incorrectly, the Applicant can lose the EP. Suspension of the EP means REP cannot operate. This is therefore taken very seriously by the Applicant. 13.11 The ExA asked how different types of recyclable wastes are distinguished and how it is defined as non-recyclable waste. Mr Othen explained that there are a long list of waste codes and that Chapter 20 of the EWC covers household waste and waste similar to household waste. This is then split into separate categories, for example separately collected paper. Each of the codes cover where waste has come from. Chapter 19 then covers waste coming from other waste treatments. Specific industrial processes have specific codes and waste classified under codes not listed in the EP will not be accepted by the Applicant under any circumstances. 13.12 The ExA asked how non-compliant waste is identified and how it is dealt with. Mr Pike explained that non-compliant waste is identified by filtering through the waste. As seen on the site visit, there is an area for unloading commercial bulk vehicles to check what waste is brought in. Any waste not suitable under that waste code would be segregated and put into a skip for disposal elsewhere. 13.13 The ExA asked if there is a difference in C&I waste other than municipal and about the mix of the waste. Mr Pike stated that there is no difference and that both are treated in the same way to ensure the correct waste is brought in. Mr Pike also confirmed that REP is expected to handle a similar type of waste mix as the existing RRRF. 13.14 The ExA raised a query on the Environmental Statement (ES) being based on a throughput of 805,000 tonnes per annum (**"tpa"**) but that the nominal design of

Ref	Issue raised by the ExA	Applicant's Response
		the facility is 655,000 tpa. 13.15 Mr Othen stated that fundamentally the sizing of the ERF plant regarding processing equipment is in terms of thermal input - how much steam can be generated. This means how much waste can be put in in terms of tpa - 650,000 tpa, is based on the calorific value of the waste at the design point (9MJ/kg) and 8000 hours of operation, taking into account down time for maintenance, outage etc. If the waste calorific value was to be lower, more waste could be processed through the ERF boiler. However, there is a maximum mechanical capacity of the plant. The higher figure of 805,000 tpa has been assessed in the ES as representing a worst case throughput as the plant is capable of handling waste with a lower calorific value, and thereby processing more throughput, and there may be some years where the operation is in excess of 8,000 hours, due to reduced outages. 13.16 Mr Stansfield, for LBB, raised uncertainty as to the upper level and how that is derived. Mr Stansfield stated that his understanding is that it is based on 100% availability and a calorific value of 7MJ/kg as opposed to 9MJ/kg. Mr Stansfield's query comes from the previous application that the Applicant submitted and the types and volumes submitted in ES five years ago in that application with an assumption of 94% availability and calorific value of 9-10MJ/kg. 13.17 Mr Pike explained that the 805,000 tpa assessed in the ES has been set at the lowest calorific value that can be processed at the maximum operation, being 24/7 all year around. This is the worst-case scenario. 13.18 Mr Griffiths added that the theoretical capacity of the plant is unlikely to occur due to outages, maintenance and calorific value. Therefore, what has been assessed

Ref	Issue raised by the ExA	Applicant's Response
		in the ES is the theoretical capacity of the plant and the impact assessed within the ES topics is the worst-case scenario. The Applicant does not agree with inserting a restriction to throughput for reasons explained at the Issue Specific Hearing on the draft DCO held on 6 June 2019 and as set out in the written summary of that hearing submitted at Deadline 3. 13.19 In relation to the Anaerobic Digestion element of REP, the GLA confirmed that Anaerobic Digestion is the best solution for waste food material. The GLA explained that in their view, Anaerobic Digestion sits alongside recycling and that whilst technically it sits in the same level of the hierarchy as energy from waste, in practice Anaerobic Digestion sits higher up the hierarchy than energy from waste. 13.20 Mr Stansfield stated that LBB discourages the burning of compost material produced in the Anaerobic Digestion plant and recognises that it is not the Applicant's preferred option, which is reuse by the agricultural sector, but that it is identified in the ES as a possibility (as raised in their Written Representation at paragraph 3.3 (**REP2-080**). 13.21 Mr Griffiths explained that reuse by the agricultural industry is the Applicant's preferred solution. REP is incentivised to use it commercially, as if the material was to be put through the ERF, Cory would not be receiving a gate fee for the waste and would be losing the fee received for its agricultural use. However, as there are no contracts currently in place, it is not appropriate to place a restriction on the use of the digestate in the DCO. Indeed, paragraph 3.3 of LBB's WR recognises that it is subject to the commercial market. In addition, Miss Berry noted that the market for the digestate is supported by PAS110 which sets out the qualities for digestate to be a useful and beneficial product which has a value.

Ref	Issue raised by the ExA	Applicant's Response
		13.22 The ExA questioned if the existing transfer station network has capacity to handle waste going to REP. 13.23 Mr Pike, for the Applicant, confirmed that there is approaching 1 million tpa of spare permitted throughput capacity at the existing transfer stations and the Applicant is seeking to develop new transfer stations as part of the commercial growth to support its Application. Mr Griffiths added that the **Transport Assessment** (Appendix B.1 to the ES (6.3, APP-066)) assumes transfer stations are the likely route to deliver the majority of waste to REP, with a smaller proportion coming directly to REP via refuse collection vehicles. 13.24 Mr Simpson, for LBB, raised a concern regarding the capacity of the transfer stations, stating that the London Waste Map developed by the GLA with the EA sets out all London facilities and their capacity. Mr Simpson asserted that Cringle Dock had already exceeded its licensed throughput capacity, and that there was little spare capacity at the other WTS sites (Smugglers Way, Walbrook Wharf and Northumberland Wharf). 13.25 Mr Griffiths requested the figures and sources quoted by GLA, which Mr Simpson confirmed will be submitted to the ExA. Mr Pike added that the Applicant has never breached an EP at any of its sites and therefore the asserted breach of the permit by exceedance of throughput is incorrect. 13.26 The ExA stated that a letter from the EA dated 21 December 2017 raises this concern. Mr Griffiths stated that the EA had not raised it since and that the Applicant will await to see the figures presented by LBB/GLA at Deadline 3. Mr Griffiths reiterated that the Applicant had never breached an EP at any of its sites

Ref	Issue raised by the ExA	Applicant's Response
		and therefore the information presented by the LBB/GLA was wrong. 13.27 Mr Griffiths highlighted to the ExA that the Environmental Permit and Air Quality note (8.02.06, REP2-057) submitted at Deadline 2 sets out that the Applicant has applied for R1 status, which therefore means that the EA has confirmed that at this point in the project design they class REP as a recovery operation under Annex II of Directive 2008/98/EC (as stated in Appendix A of the Environmental Permit and Air Quality note (8.02.06, REP2-057)).
14	The potential contribution of CHP	14.1 The ExA acknowledged that the **Combined Heat and Power Assessment (5.4, APP-035)** and the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)** highlighted that both residential and industrial heat demand is identified and asked how realistic the prospect of exporting heat to these potential consumers were. 14.2 Mr Barker, on behalf of the Applicant, clarified that two principal heat network opportunities have been identified. As set out in section 6 of the Combined Heat and Power Assessment and clarified in the Combined Heat and Power Supplementary Report, the preferred solution would be to export heat to new build residential developments. This is on the basis that this would enable a low temperature heat network to be developed (thereby reducing heat losses and increasing efficiency), would offer social benefits and would support regeneration ambitions for the region. The residential heat network opportunity comprises up to 20,000 dwellings (and some associated commercial properties) as part of a Thamesmead regeneration programme. The industrial demand option would comprise heat supply to industrial and business premises on Burt's Wharf, located primarily to the east and south of the Proposed Development. This approach would still offer significant carbon savings by virtue of offsetting

Ref	Issue raised by the ExA	Applicant's Response
		conventional heating sources. Both options together demonstrate a significant surplus heat demand in the locality. 14.3 On the question of likelihood of connection, Mr Barker set out the approach taken to identify heat consumers in accordance with the requirements of the EA's CHP-Ready Guidance, specifically the review of data provided on BEIS' National Heat Map which identified over 8,300 GWh/annum of potential heat demand within 10 km of the Proposed Development. This high heat demand density is reflected in the designation of the area as a 'Heat Network Priority Area' meaning that the Mayor of London deems that heat networks can offer a competitive solution for supplying heat to buildings. Mr Barker further explained that heat demand screening had then been undertaken to discount consumers which are unviable to connection due to physical constraints and topology including local rail lines and the River Thames. Following the screening exercise, best practice Chartered Institution of Building Services Engineers (CIBSE) benchmarks were applied to publicly announced development proposals to generate heat demand projections. On this basis the Applicant is confident in the methodology used to arrive at the conclusions. 14.4 Given the nature of heat network projects being geographically expansive, requiring cross-party involvement from public and private sector bodies including statutory undertakers, and requiring commercial agreement from heat suppliers, heat consumers and intermediates, it can be time consuming and complex to bring forward heat networks. A timeframe in the order of a decade would not be inconceivable for a project of this scale. This should not be seen as an impediment to realising the benefits associated with developing a heat network. However, it should be recognised that responsibility for delivery does not lie solely

Ref	Issue raised by the ExA	Applicant's Response
		with the Applicant. 14.5 Mr Griffiths, on behalf of the Applicant, took the opportunity to highlight the Applicant's commitment to realise this ambition, principally through developing REP as fully CHP-Enabled from the outset and its involvement in the Bexley District Heating Partnership Board, which was established in 2018 following the outcomes of the 2015 Bexley Energy Masterplan (which the Applicant co-funded), with the ambition of establishing a collective approach to the development of a heat network in the locality. The Partnership Board is attended by representatives from the London Borough of Bexley (LBB), the London Borough of Greenwich (LBG), the Greater London Authority (GLA), housing developers Peabody and Orbit Homes, and the Applicant. Peabody has recognised and welcomes the Applicant's approach in respect of these efforts, as detailed in a letter of support which is appended to the Combined Heat and Power Supplementary Report (REP2-012). 14.6 Mr Barker clarified the importance of CHP-Enabled status in meeting NPS policy tests by explaining that, in respect of the Proposed Development, it is the EA who is responsible for setting out the criteria for what is considered best available technique (BAT) with regards to energy efficiency. The vast majority of energy from waste facilities are developed as CHP-Ready, meaning that they are "*designed to be ready, with minimum modification, to supply heat in the future*" as quoted from EA CHP Ready Guidance. In practice this is achieved by installing a steam extraction flange on the turbine, or an appropriate steam header, to allow for steam to be supplied to heat recovery equipment (for transfer to a hot water district heating circuit) which could be installed in the future. This approach is taken where there are no immediate opportunities for the supply of heat from the outset. REP, however, would be fully CHP-Enabled, meaning that all of the

Ref	Issue raised by the ExA	Applicant's Response
		necessary on-site heat export infrastructure is included in the description of development and can be installed to the site boundary as part of the proposed construction programme. This is secured through the DCO under Schedule 1 Work No. 3 which states "*Works to construct and install combined heat and power equipment including heat exchangers, pipework (including flow/return pipework, valving, pumps, pressurisation and water treatment systems)*." Heat network delivery beyond the Proposed Development would be the subject of additional consents. 14.7 Mr Griffiths clarified further that Work No. 6(a) secures the ability to install district heating pipes to the site boundary, and Work No. 7 secures the ability to install district heating pipes to the proposed data centre sites to the south. 14.8 On behalf of the GLA, Mr North raised some concerns regarding: ▪ the adequacy of the heat demand feasibility assessment undertaken to date; ▪ that the economic case was not robust; ▪ asserted that the Ramboll Phase 2 feasibility study (Annex 2 to GLA Written Representation) identified that heat demand in the region requires only 70% of the capacity available from RRRF; ▪ that there had been a lack of stakeholder engagement; and ▪ that the carbon credentials of REP (in the event of no heat export) were insufficient.

Ref	Issue raised by the ExA	Applicant's Response
		14.9 In response, Mr Barker noted the following: ▪ As previously explained, the heat demand assessment undertaken is compliant with relevant legislation, draws on Government tool sets and best practice benchmarks, and identifies clearly how REP would meet policy tests by going beyond BAT recommendation. ▪ The Applicant agrees that the economic case is likely unviable if not subsidised, hence the identification of Heat Network Investment Project (HNIP) funding to assist in bringing forward the associated benefits. This is no different to other CHP networks. ▪ The Ramboll Phase 2 feasibility study omits significant heat demand in the region, most notably the £8 billion Thamesmead Waterfront development comprising 11,500 new homes, for which Landlease has been selected as the preferred bidder. The study also fails to recognise industrial heat demand identified via BEIS CHP Development Map tool at Burt's Wharf. The study also states explicitly that if a more ambitious build out scenario is assumed (which is entirely reasonable) then additional heat source(s) beyond RRRF will be required. The Applicant maintains strongly that there is sufficient heat demand in the locality to warrant heat supply from both RRRF and REP – and additionally there are further carbon savings that could be achieved by having some level of back-up synergy between the two facilities bearing in mind the highly variable nature of residential heat demands. ▪ As described previously, the Applicant has and will continue to take demonstrable steps in realising heat export opportunities primarily through involvement in the Bexley District Heating Partnership Board. Draft London

Ref	Issue raised by the ExA	Applicant's Response
		Plan policy SI8 section 9.8.13 notes specific demonstrable steps required under part D3, including commitments to deliver infrastructure to achieve high energy efficiency by way of "*investment in the development of a heat distribution network to the site boundary, or technology modifications that improve plant efficiency*" and "*the establishment of a working group to progress the agreed steps and monitor and report performance to the consenting authority*", both of which the Applicant is actively delivering at the current time. ▪ In the case of RRRF, which was developed as CHP-Ready, the Applicant has installed (in 2014) at its own cost isolation valving on medium pressure steam header. This will allow heat export opportunities to be brought forward in the quickest possible timeframe and in conjunction with development in the area since there is no need for a common system outage at the facility for the connection to heat recovery equipment to be made. The Applicant has also supported Ramboll in undertaking its feasibility studies through provision of technical and commercial information pertaining to heat export equipment configurations, locations and pipe routes completed to date. ▪ As set out in the Combined Heat and Power Supplementary Report (REP2-012) (and discussed subsequently in the hearing), REP is able to meet and exceed the GLA's principal carbon performance metric (Carbon Intensity Floor (CIF)) using the GLA's Ready Reckoner tool in every operational configuration (with or without heat export). This is made possible by the high efficiency nature of the technical proposals. Additionally, it is interesting to note that the Ramboll Phase 2 feasibility study concludes that the carbon case for heat exported from RRRF would offer carbon savings over the counterfactual cases of either air source heat pumps or gas fired CHP, therefore offering a strong

Ref	Issue raised by the ExA	Applicant's Response
		benefit. REP would be even more efficient so the case is improved further. 14.10 Cllr Putson raised that during public consultation at the pre-application stage, he was advised on 3 occasions that the Proposed Development was carbon negative, carbon neutral and low carbon. Mr Griffiths clarified that it is both low carbon and renewable, and that terminology adopted by the Applicant throughout the DCO application and examination phases has been consistent. Over 50% of the residual waste will be renewable but the Applicant has never stated that it is 100% renewable. There is no restriction in the NPS that it has to be 100% renewable. Mr Griffiths also noted that the Proposed Development is not only about the ERF, but has other elements too which are renewable (i.e. the Anaerobic Digestor and solar panels) as well as incorporating new battery storage technology. The NPS is clear that the economy needs to transition to a low carbon economy and this is what this project delivers. It will deliver carbon savings compared to the alternatives. This is clear in the Application and documentation.
15	Carbon assessment and the carbon intensity floor (CIF)	15.1 The ExA raised a query on the displacement of interconnectors, which the Applicant confirmed will be considered and responded to in writing in relation to the base load in the future and marginal power source. Following the hearing, the Applicant is producing a note to respond to this query and will submit this at Deadline 4. 15.2 The ExA raised that the GLA argues in its **Written Representation (REP2-071)** that it is difficult for the Proposed Development to meet the CO2 limits set by the CIF and that it sets a high gross efficiency. The ExA asked for the Applicant to clarify what efficiency levels it is assuming and how it will be achieved.

Ref	Issue raised by the ExA	Applicant's Response
		15.3 Mr Othen, for the Applicant, explained that the carbon assessment compares the ERF element and has compared the carbon released from that against the alternative, being landfill, and also considers the power displaced by the ERF. CIF only focusses on the ERF as a power station specifically and does not consider the landfill displacement. Eunomia (advising the GLA), in the Appendix to the **GLA's Written Representation (REP2-071)** refers to data in the draft BAT documents which covers a large number of energy from waste plants. It is true that most plants in the UK and Europe operate around 25-28% gross efficiency. There are others that operate at 32-33% gross efficiency. Mr Othen emphasised that REP is not intended to be an average energy from waste plant but is intended to be the most efficient in the UK. The Applicant is achieving that by working with the contractor to look at how efficiency of the plant can be maximised. This includes the following measures: • Steam pressure at 75 bar and steam temperature of 440°C, which are higher than normal energy from waste plants and was identified by Eunomia as a way to improve efficiency; • Focussing on efficient turbines to maximise efficiency; • Using more complex heat recovery systems in the air preheaters and the condensate reheat system; and • Including heat recovery from flue gases after flue gas treatment. Mr Othen noted that the flue gases are cooled down to around 150°C for the flue gas treatment and that they are normally released to atmosphere at this temperature, but at REP the gases will be further cooled to 120°C for extra heat recovery.

Ref	Issue raised by the ExA	Applicant's Response
		15.4 The Applicant is not able to publish the heat analysis due to commercial confidentiality. Fichtner Consulting has repeated the modelling itself to see if it can achieve a similar level and the model got to around 34% gross efficiency. The Applicant is confident that all measures to improve efficiency will be effective and that a gross efficiency level of 34.25% that is being proposed will be achieved. Mr Othen stated that the actual efficiency in operation may not be exactly 34.25% but will be close to it, plus or minus half a percentage. As presented in **Combined Heat and Power Supplementary Report (5.4.1, REP2-012)**, adding heat to that the CIF starts to lower it, with the lowest figure of 323 being achieved by the ERF. 15.5 Mr North, for the GLA, stated that for the type of technology being proposed, a net electrical efficiency of 25% was common. 15.6 Mr Othen explained that it is conventional technology that is proposed to be used in the ERF**.** Mr Othen then explained that the efficiency used in the CIF calculator is the gross efficiency (being 34.25%), which relates to the generated power. The net efficiency for the ERF, which relates to the exported power, is 31.25% and this is on the same basis as the 25% which Mr North quoted. For the carbon assessment, the more important figure is the power exported, but the CIF calculation uses the gross figure and then includes adjustments for the parasitic load. The Ferrybridge 2 plant, which has been granted a DCO and is now under construction, was based on a net electrical efficiency of 29.8%, which would have been designed 5 years ago. With constant drivers to improve efficiency, both in Government policy and in the industry itself, moving from a net efficiency of 29.8% 5 years ago to 31.25% is perfectly achievable and should be welcomed. The aim is to improve efficiency further and improve how the steam cycle is run. The Applicant is confident it can achieve this level

Ref	Issue raised by the ExA	Applicant's Response
		15.7 Mr Griffiths explained that Fichtner Consulting have looked at the technology provider's data and concur with their efficiency. The data is commercially sensitive to the technical provider but GLA have heard from the consultancy that it has been verified. Mr Griffiths also explained that REP has demonstrated how it will meet the CIF target in power only mode from day one and that the waste policy documents encourage advancements in technology. 15.8 Mr Othen explained that the point of the electrical efficiency is to calculate the CIF. CIF is calculated using the spreadsheet that GLA developed, by starting with waste, determining how much energy is in the waste and multiplying the energy by the efficiency to give the power generated (i.e. the gross efficiency). Therefore, the energy in the waste and the electrical efficiency need to be expressed on the same basis. 15.9 Mr Othen explained that energy in the waste can be expressed in net or gross calorific value. Electricity efficiency can also be expressed on the basis of net or gross calorific value. Most importantly, both have to be expressed in the same calorific value. Thermal energy in waste in the CIF spreadsheet is expressed in net calorific value, as confirmed by the GLA and Eunomia, so it must be multiplied by the electrical efficiency based on net calorific value. 15.10 Mr Othen explained that the gross calorific value is the energy released if waste is burned and the water in the flue gases is condensed to a liquid. Net calorific value is the energy released if the waste is burned and the waste in the flue gases remains as steam. Net calorific value is lower than gross because some energy remains in the steam. 15.11 Mr Griffiths explained that the notwithstanding the primary policy against which

Ref	Issue raised by the ExA	Applicant's Response
		the Proposed Development is to be assessed, the Applicant is in compliance with London Plan CIF and meets the CIF target in power only mode. The DCO Application includes all the CHP equipment up to the Site Boundary (being Work No. 3, Work No. 6 and Work No. 7 (which goes beyond the Site Boundary)). Despite this, the Applicant does not need CHP to meet the CIF targets. 15.12 The ExA stated that the GLA policy does not itself replace any of the NPSs, so it is to be taken into account but will not have an overriding influence on the ExA's decision.

5. AGENDA ITEM 4 - ISSUES RELATING TO AIR QUALITY

Ref	Issue raised by the ExA	Applicant's Response
16	Emissions to atmosphere, including NOx, particulates and other pollutants and their impacts on the environment	16.1 The ExA asked the Applicant to comment on the GLA's assertion that NOx emissions from REP would be 4 times greater than at RRRF. 16.2 Mr Harker, on behalf of the Applicant, explained that the statement resulted from a typographical error in the ES submitted with the Application which has been amended by the Applicant at Deadline 2. This is shown in the track change version of **Chapter 7 Air Quality** of the **ES (6.1, REP2-020)**. 16.3 The ExA asked what the difference is between the limits applied for as part of the EP application and those in the DCO. Mr Griffiths explained that **Table 3.1** in the **Environmental Permit and Air Quality note (8.02.06, REP2-057)** compare limits

Ref	Issue raised by the ExA	Applicant's Response
		in the duly made application for the EP and the DCO Application. Mr Griffiths confirmed the only change relates to the limit specified for NOx, which in the DCO Application is 120 mg/Nm3 and in the EP Application is 75 mg/Nm3. 16.4 Mr Othen, on behalf of the Applicant, explained that the EA works on the assumption that the draft Waste Incineration BAT Reference Document ("**BREF**") will be implemented. The BREF has gone through all stages except for approval by the member states. It is understood that the 'Final' Waste Incineration BREF is expected to be published in Q3/Q4 2019. If the UK has not left the EU at that point then the BREF will become UK law. If the UK has left the EU, DEFRA has said that they will implement the existing BREF, so it is likely that the draft BREF will be implemented into UK law. Mr Othen also confirmed that the EA was unlikely to give a permit for more emissions than asked for. Whilst in theory they could do so, in practice they do not. 16.5 Mr Inch, for the GLA, explained that he had contacted the EA and that the response received stated that this is a grey area. Mr Inch asserted that the range of NOx emissions set out as achievable in the draft BREF is 50-120 mg/Nm3 so it is unclear that the 75 mg/Nm3 in the EP Application would be achievable. 16.6 Mr Griffiths, for the Applicant, explained that the EP application was made by the Applicant on the basis of a limit of 75 mg/Nm3 and that the Applicant fully expects the EA to put that figure on the permit. The EP application would not have been made if the Applicant did not have the confidence that it would achieve that level. Whilst Mr Inch had attempted to contact the EA in relation to this matter, it is clear that the EA will not fetter its discretion or make a comment whilst the EP application is being determined. Therefore, it is not surprising that they have not

Ref	Issue raised by the ExA	Applicant's Response
		given a commitment to the GLA. 16.7 The ExA asked if there will be a combined NOx emission from the two plants and whether this has been assessed. Mr Harker, on behalf of the Applicant, explained that you cannot simply add up concentrations from different plants as each plant has a different volumetric flowrate. It is the combination of emissions concentration and volumetric flow rate that gives you the emissions of each plant. If you wanted a net concentration equivalent, you would need to multiply the emission concentration by the volumetric flowrate from each stack to get the emission rate from each stack; and then divide total emission rate by the sum of the volumetric flowrates from both stacks. The resultant concentration would lie between the concentration limits for each plant. Mr Harker also confirmed that the combined rate of the two plants has been assessed. The modelling of the dispersion of emissions has taken into account REP operating on its own and those emissions added to the baseline, which includes the Crossness incinerator, RRRF and road emissions. The combined impact has been assessed, with the data set out in **Appendix C.2** of the **ES (REP2-038)**. There is no exceedance of threshold levels as a result. 16.8 The ExA raised the GLA's concern on the use of biogas on the Anaerobic Digester as using this for power generation increases unavoidable air emissions. The ExA asked whether the biogas being put in the gas network should be an option in the Proposed Development. 16.9 Mr Griffiths explained that the Applicant cannot guarantee this at this point, but can confirm that the environmental effects of biogas as part of the process on the site does not give rise to a significant effect.

Ref	Issue raised by the ExA	Applicant's Response
		16.10 Mr Inch, for the GLA, highlighted 3 potential options for the use of gas from the Anaerobic Digestion plant. Use by the gas engine CHP on site was the least preferable option for the GLA due to the hierarchy identifying that this technology is the lowest in terms of energy used. Regarding local NOx impacts, whilst he acknowledged that these are not particularly high, he remained concerned that there is still a higher contribution to London's emissions in total. By contrast, if the gas was put into the grid, it would not add to London's NOx emissions. 16.11 Mr Griffiths confirmed that the Applicant will consider this issue and revert back in writing regarding the use of gas from the Anaerobic Digester. The infrastructure to utilise the gas in the gas network is included in the Proposed Development up to the REP site boundary and therefore the outcome depends on discussions with National Grid.
17	Health effects	17.1 The ExA stated that the emissions of particulates is a concern to Mr Cruddas MP, including issues in relation to lung disease. 17.2 Mr Othen, for the Applicant, explained that in relation to the concern raised on lung disease, additional analysis has been undertaken. The British Lung Foundation Report considers instances of lung disease around the country and primarily attributes the effect of lung disease to smoking and links to more deprived areas. It does not look at other sources, does not mention incineration, and does not demonstrate causation between incineration and health impacts. 17.3 Mr Harker, for the Applicant, explained that the emissions of particulates of REP alone are shown in **Table 7.4** in **Chapter 7 (Air Quality)** of the **ES (6.1, REP2-019)**, which provides a list of the pollutants and the process contribution at the point of maximum impact, as opposed to receptor location. For particulates, the

Ref	Issue raised by the ExA	Applicant's Response
		contribution is insignificant. For PM2.5 it is 1.1% of the assessment level, but it assumes that all the PM10 particles are PM2.5, which is conservative as only a proportion of the PM10 will be in the PM2.5 size range. The combined impacts of REP and other sources such as road traffic, Crossness Sewage Treatment Works and RRRF are provided for PM10 and PM2.5 in **Appendix C.2.2 (6.3, REP2-038)** and there are no exceedances of the assessment levels. 17.4 Mr Griffiths, for the Applicant, explained that in the EA's July 2018 response to UKWIN, the EA repeated Public Health England's ("**PHE**") position that well run and regulated incinerators are not a significant risk to human health. Energy from Waste plants are an extremely small source of PM giving rise to 0.03% (in relation to PM10) and 0.05% (in relation to PM2.5) of total emissions in 2016 compared to traffic, which contributed 5.35% (in relation to PM10) and 4.96% (in relation to PM2.5) and wood fires/stoves (which contributed 22.4% and 34.3% respectively). A copy of the EA's response to UKWIN has been submitted at Deadline 3 at Appendix E of the **Post Hearing note on Public Health and Evidence (8.02.27)**. 17.5 Mr Harker, for the Applicant, added that receptors at higher floor levels for existing receptors (receptors 18, 19 and 20) in the ES shows that there are very small, negligible, changes in the contributions from REP at elevated floor levels up to 6th floor level. 17.6 The ExA stated that London Borough of Havering ("**LBH**") have raised concerns regarding emissions of nickel and chromium VI. 17.7 Mr Ansell, on behalf of the LBH, stated that although emissions of nickel and chromium VI are within the threshold limits, he considered that the impact should

Ref	Issue raised by the ExA	Applicant's Response
		be raised from minor to moderate given the area included children and hospitals. 17.8 Mr Harker explained that the assessment takes into account what the total concentration will be and that the objectives that the assessment compares against are those for vulnerable individuals in society, such as young people and hospitals. In terms of nickel, the total concentration is 25% of the assessment level and is therefore well below the thresholds set to protect human health. 17.9 Mr Harker confirmed that a number of different factors are taken into account in assessing the significance of effects, not just the number of properties that are impacted. From looking at where the receptors are and the contour plots (as per Figures 7.7, 7.8 and 7.11 of the ES, and the contours appended to the LBH LIR response) one can gauge the number of properties affected. Whilst Mr Harker confirmed that the Applicant could set out the number of properties on a calculation basis, this was just one element of the consideration and the contour plots illustrated the location of residential areas. In his professional judgement, taking into account a number of factors including that the assessment level would not be breached, Mr Harker concluded that there would be no impact to human health at these sensitive receptors given the contours and the location of the residential properties. Mr Harker also confirmed that in relation to the pollutants that have a minor adverse contribution, the assessment levels are not exceeded. 17.10 Mr Ansell stated that the whole area which runs from the old A13 northwest is marked for residential development and therefore does fall within that contour. Mr Griffiths confirmed that the cumulative assessment has been agreed with the LAs and takes into account all relevant developments within the Application Boundary. A plan showing the potential future development is shown in the Applicant's

Ref	Issue raised by the ExA	Applicant's Response
		response to the **LBH's Local Impact Report (8.02.18)**. 17.11 Cllr Putson raised a concern around air quality and health impacts, in particular in relation to ultra-fine particulates. He noted that he was aware of the exceptional work that the Applicant does in relation to monitoring the emissions from the RRRF and monitoring by the EA, but was concerned that there is no reference to what is emitted in the form of ultra-fine particulates. Whilst noting the Applicant's submission regarding the saving of truck journeys by use of the river Thames for transport, he was also concerned regarding the emissions of polycyclic aromatic hydrocarbons from diesel trucks and tugs resulting from the transportation of waste to the facility. The ExA asked Cllr Putson to submit these reports into the Examination. Mr Griffiths confirmed that once the documents are submitted, the Applicant will review them and provide a response. 17.12 Mr Griffiths reiterated the position on ultrafine particulates and the PHE's position on energy from waste plants. In addition, research commissioned by PHE and published at the end of 2018 concludes that there is no evidence for increased risk of infant mortality, or other health effects on infants, for those living near waste incinerators. Further research commissioned by PHE and published in April 2019 specifically considered whether there was evidence of a change in infant mortality rates when an incinerator opens and, again, found no evidence of this. Full details can be found in the **Post Hearing Note on Public Health and Evidence (8.02.27)**.

6. AGENDA ITEM 5 – ISSUES RELATING TO BIODIVERSITY

Ref	Issue raised by the ExA	Applicant's Response
18	Impact of development on Crossness Nature Reserve	18.1 The ExA raised Thames Water's ("**TW**") concern regarding NOx from the Anaerobic Digestion plant. 18.2 Mr McLaughlin, on behalf of the Applicant, explained that this was identified as a potential effect in the ES, which identifies the potential for elevated levels of NOx to convert to nitrogen and thereby affect habitats. The effects are in the immediate vicinity of the Anaerobic Digestion plant, on the periphery of the Crossness LNR. These are not habitats of high botanical diversity so are less susceptible to changes from nitrogen deposition. Research suggests that freshwater marshes are less susceptible to nitrogen deposition than other habitats. Therefore, the effects on the Crossness LNR were assessed as not significant. 18.3 The ExA questioned what the effect would be on open skies and what weight the Applicant attached to openness. 18.4 Ms Jones, on behalf of the Applicant, explained that as part of the EIA, a Townscape and Visual Impact Assessment ("**TVIA**") was undertaken, which assessed visual effects of the Proposed Development – that is the effects on people's views and visual amenity, including from within Crossness LNR. The assessment found that at operation, there would be adverse, moderate significant visual effects from the Thames Path eastwards (SA-1) and VP2 and VP3 within Crossness LNR due to proximity to the proposed Main REP Building. The assessment also found there would be beneficial, moderate significant visual effects from the Thames Path westwards (SA-1), VP6 public right of way at South

Ref	Issue raised by the ExA	Applicant's Response
		Mere and VP11 public right of way at Horse Shoe Corner. Beneficial visual effects arise from positive changes in the view composition, such as creation of a new focal point, new visual interest or feature on the skyline, and so on. Beneficial visual effects are set out in the TVIA methodology and the balance of the adverse and beneficial effects is set out for each viewpoint being assessed for transparency in the assessment. 18.5 Ms Jones explained that as part of the TVIA, photographs provided verified view wireframes – the wireframe for VP2 demonstrates the visual effect. These demonstrate that the Main REP Building does not take up the entire view and that a gap remains. Nor does the foreground change in the view. This is a single frame photo so does not show the wider extent of the remaining openness which extends to the Thames Water Crossness Sewage Treatment works, which will have been seen during the site visit. The remaining gap is also seen in the aerial image of the Proposed Development, at Figure 5.4 of the **Design and Access Statement (7.3, APP-104)**. The comparison image of the existing site is at **Figure 3.2.2** of the **Design and Access Statement (7.3, APP-104)**. 18.6 Ms Jones clarified that the verified wireframe in the VP2 image showed the worst case parameters without applying the Design Principles, which set out a stepped form design. Therefore, the actual design of the building would be smaller than that shown in wireframe as a result of adherence with the **Design Principles** submitted with the DCO Application **(7.4, APP-105)** and secured by Requirement 2 in the **dDCO (3.1, Rev 2)** submitted at Deadline 3. 18.7 The ExA noted that a gap would remain, but that it would be reduced by the new built form seen from the nature reserve when looking towards the Thames. Ms Jones confirmed that whilst that was correct, the new building would be seen

Ref	Issue raised by the ExA	Applicant's Response
		together with the existing buildings on Norman Road. 18.8 The ExA asked whether the openness would remain from the western side of the nature reserve but would be changed to a new building from the south-eastern part of the nature reserve when looking towards the Thames. Ms Jones confirmed this. The Crossness LNR boundaries are shown on **Figure 3.1** of the **ES** (**provided in Annex A of this written summary**).
19	Effects to SSSIs from nitrogen deposition	19.1 The ExA asked about the effect of levels of nitrogen deposition to Ingrebourne Marshes SSSI. 19.2 Mr McLaughlin, on behalf of the Applicant, stated that the air quality modelling identified elevated levels of nitrogen deposition to Ingrebourne Marshes SSSI which were slightly above the threshold of potential significance of 1%. However, he explained that the EA uses that as a generic low-level threshold to indicate an impact for all SSSIs irrespective of the species for which they are designated. The use of the 1% threshold should only be used to screen out impacts, but not as a threshold above which damage is implied (based on advice from the IAQM). In consultation with Natural England, Natural England indicated that they consider a 10% threshold is appropriate for identifying a significant impact in this location. Further ecological assessment has been undertaken and there is no indication that there are any adverse effects, in particular because freshwater marsh systems are not particularly susceptible to nitrogen. The conclusion of no significant effect in the ES assessment has been agreed with Natural England in the SoCG **(8.01.05, REP2-051)**.
20	Disturbance of wildlife	20.1 The ExA asked how the effect on breeding lapwings and nesting barn owls is

Ref	Issue raised by the ExA	Applicant's Response
	by noise and lighting	assessed. 20.2 Mr McLaughlin, on behalf of the Applicant, explained that the full assessment for construction and operation of bird assemblage in the ES concluded no significant residual effects, as supported by Natural England in the SoCG (REP2-051). Lapwings were identified as breeding in the West Paddock during baseline surveys. A key consideration is disturbance during the breeding season. The Applicant has undertaken noise modelling assessments at a representative location in the Crossness LNR. That identified some minor increases during construction to around 60dB, which is equivalent to normal conversation levels. Additionally, when breeding, all species of lapwing are able to be resilient to disturbance and if the habitat is right then lapwing will be resilient to reasonable levels of disturbance. Mr McLaughlin noted that he has seen lapwing breeding within construction sites themselves. 20.3 Ms Sutton, on behalf of TW, queried whether 4 years of construction could be said not to have an impact on ground nesting birds that are breeding and questioned the assessment of noise levels. She suggested that noise modelling should be done in the West Paddock. Ms Sutton also raised concern regarding the increased predation of lapwing due to perches. 20.4 Mr McLaughlin explained that 62db is the level of noise modelled at location 3, which is a representative location at Crossness LNR. The Applicant chose a location representative of the whole Crossness LNR to understand the effects of noise across the area. In addition, he noted that the assessment of noise modelling is based on a worst-case assessment, assuming all noisy elements of construction being undertaken concurrently. In reality, this scenario is unlikely to

Ref	Issue raised by the ExA	Applicant's Response
		occur. 20.5 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 are not already present in close proximity to Crossness LNR, and therefore increased predation of lapwing is considered unlikely. 20.6 Ms Sutton, on behalf of TW, raised that shadow modelling shows significant shading on sea wall fields and would also result from the consented Data Centre. Ms Sutton raised a concern that a rare plant, Dittander, will be subjected to shading. 20.7 Mr McLaughlin, on behalf of the Applicant, explained that further to the concerns raised, the Applicant undertook additional assessment of shading effects to Crossness LNR and submitted this supplementary work at Deadline 2. The images associated with that assessment demonstrate that the shadow quickly moves off Crossness LNR and by early to mid-late morning the shadow has left Crossness LNR entirely. Mr Griffiths confirmed that shadowing images shown will be submitted as an appendix at Deadline 3. Mr McLaughlin added that when habitats receive the highest solar radiation through the middle part of the day, there is no shading on Crossness LNR. The ES identifies that there will be no significant effect from shading on habitats. 20.8 Ms Sutton, on behalf of TW, stated that there are breeding barn owl at Crossness LNR which is significant in an urban area such as this. TW has installed 4 nest boxes for barn owl, 3 of which have evidence of use, and 1 of which is being used for breeding. These are Schedule 1 species and there is a concern that the

Ref	Issue raised by the ExA	Applicant's Response
		Norman Road box will be impacted by disturbance and lighting as it is in close proximity to the Main Temporary Construction Compound. Barn owls are very site faithful and TW is concerned that they could abandon the nest site. 20.9 Mr McLaughlin, on behalf of the Applicant, acknowledged the presence of barn owl. However, construction will not result in the loss of breeding sites or loss of any key foraging habitats. The barn owl box on Norman Road is over 100 m from the Main Temporary Construction Compound site and is far closer to the dual carriageway (Eastern Way) to the south, which has its own noise and lighting effects. Lighting will be managed through measures set out in the CoCP (Requirement 11 in Schedule 2 to the Development Consent Order, REP2-006) and Outline Lighting Strategy (Requirement 16 in Schedule 2 to the Development Consent Order, REP2-006) which ensure that effects will be addressed through adherence to industry standard guidance. Via these measures, and those set out on the **OBLMS, (7.6, Rev 1)** submitted at Deadline 3, there will not be any disturbance effects to barn owls. 20.10 Mr McLaughlin explained that along the Electrical Connection route through the Dartford Marshes area, there is high prevalence of semi-natural habitats that could support foraging/commuting bats. Measures to address disturbance from noise and lighting are set out in the **OBLMS (7.6, Rev 1)** submitted at Deadline 3 and the **Outline CoCP (REP2-046)**. The effects during construction would be temporary. 20.11 Mr Gray, on behalf of BNEF, echoed the concerns of TW. BNEF is also concerned that the Proposed Development will envelop fragmentation, with corridors into the site being closed down and access for flora and fauna being blocked.

Ref	Issue raised by the ExA	Applicant's Response
		20.12 Mr McLaughlin, for the Applicant, stated that the Proposed Development will not result in permanent direct effects to Crossness LNR or associated habitats. The development of the REP site or the use of the Main Temporary Construction Compound site will not affect any identified wildlife corridors. Existing wildlife corridors between Crossness LNR and adjacent habitats, such as the Thames Estuary will not be severed, and therefore there will be no effects from fragmentation. 20.13 Ms Sutton explained that TW is concerned that whilst people know the Crossness LNR is an urban nature reserve the perception of coming into an industrial estate will deter people from visiting. 20.14 Mr Griffiths explained that the Applicant has assessed the application on the health and wellbeing of users of the Crossness LNR in the Health Impact Assessment ("**HIA**") submitted with the DCO Application (APP-094) and, in conjunction with the landscape and visual impact assessment in the ES, has considered the effects of the Proposed Development. Based on evidence in the ES, the HIA has concluded that it is unlikely that visual changes will deter people from using nearby outdoor recreational spaces (including Crossness LNR) during the operation of the Proposed Development. 20.15 The ExA asked how the land required for the construction of the electrical connection relates to the nature conservation obligations in the planning permission for the Joyce Green Quarry site. 20.16 Mr McLaughlin, for the Applicant, explained that in relation to Joyce Green Quarry recent revisions to the Electrical Connection route meant that there will be no direct conflict between the application site and the receptor sites. There will be no

Ref	Issue raised by the ExA	Applicant's Response
		effects to water voles or reptiles in those receptor sites. Mr Griffiths confirmed that certain measures to protect those sites are being discussed with the owner of that site and are being written into the OBLMS, which is being updated for Deadline 3. 20.17 The ExA asked for the Applicant's view on the weight to be attached to the Crossness LNR as Metropolitan Open Land (MOL). Mr Griffiths explained that the Proposed Development is not in the Thames Water owned Crossness LNR. As explained within **Chapter 9** of the **ES (6.1, REP2-021)** the TVIA considers likely effects of the Proposed Development upon MOL as designated land as shown in **Figure 9.2 (6.2, APP-056)**. The Proposed Development's main built form is not located within MOL, but adjacent to it. The only works within the MOL will be a small part of the buried electrical connection and a possible above-ground cable trough as outlined in the Environmental Statement Supplementary Report, which would sit adjacent to and no higher than the parapet of the existing bridge. As such works are below ground, there will be no impact on the openness of this part of MOL. The Applicant's assessment of the effect of the Proposed Development includes the consideration of effects on people's views from MOL, for example VP2 and VP3, and thereby considers the effect on openness of MOL. 20.18 Whilst the London Plan considers that MOL should be given the same protection as Green Belt, paragraph 5.10.17 of NPS EN-1 applies to development "*When located in the Green Belt*..." The Main REP Building is not located in the MOL, and therefore does not comprise "inappropriate development" and as such is not contrary to the policy at section 5.10 of NPS EN-1. Furthermore, it is considered that the urgent need for energy generation of the type provided by REP represents very special circumstances in accordance with paragraphs 5.10.10 - 5.10.12 of NPS EN-1 and in light of the fact that the physical characteristics of the

Ref	Issue raised by the ExA	Applicant's Response
		development in this location are such that it has no impact on the fundamental purposes of the MOL designation, in accordance with paragraph 5.10.17 of NPS EN-1.
21	Cumulative effects	Mr Harker, on behalf of the Applicant, confirmed that there would be no interaction between Anaerobic Digestion stack and the ERF stack.
22	Biodiversity offsetting	22.1 Mr Griffiths, on behalf of the Applicant, explained that the REP site is not large enough to compensate for the loss that has been recognised as a result of the Proposed Development. Therefore, the Applicant has been in discussions, from an early stage of the Proposed Development, on the principle of off-setting and working with the Environment Bank. The Biodiversity Accounting Report (8.02.09, REP2-060) submitted at Deadline 2 demonstrates the work currently carried out by the Applicant. 22.2 Ms Martland, from the Environment Bank, provided a brief overview on the history of biodiversity accounting and biodiversity offsetting, together with the services provided by Environment Bank and their role in REP. A summary of the biodiversity accounting method was provided, which can be read in more detail within the **Biodiversity Accounting Report (8.02.09, REP2-060)**. 22.3 Ms Martland explained that the Applicant has committed to delivering an off-site compensation package (biodiversity offset) which will address the net loss of biodiversity value across the Proposed Development and will target replacement of the Open Mosaic Habitat in a like-for-like manner. It is intended that work to identify and prepare the offset will be progressed allowing details of sites being considered to be provided in future submissions. Ms Martland confirmed that the Environment Bank is beginning to look at sites in the local area, and is considering a number of factors including proximity to the habitat to be lost, whether a site can

Ref	Issue raised by the ExA	Applicant's Response
		contribute to green infrastructure, what habitats can be created, if there is sufficient biodiversity uplift etc. In the design, the offset for Open Mosaic Habitat is a leading component and so the Environment Bank will look for a site that can deliver that type of habitat. Prior to commencement of any works the final offset site will be identified, management plans written and submitted to approval by the LBB. The habitat will be secured by a legal agreement pursuant to which the Applicant will pay Environment Bank to oversee management of the sites and regularly monitor the projects to check works are being undertaken as agreed and monitor the biodiversity of those sites. This will be reported back to LBB to ensure biodiversity net gain is delivered. 22.4 Mr Griffiths confirmed that within the offsetting the Applicant is committing to a minimum 10% net gain through the OBLMS. Requirement 5 of the DCO secures the OBLMS and when the final form is submitted to LBB for approval, requires the Applicant to set out the biodiversity offsetting metric and the value and nature of that offsetting. The mechanism for securing that offsetting and long term management and monitoring will be approved by LBB. The Biodiversity Accounting Report considered two scenarios for the offsetting calculation – the realistic worst case and the realistic best case. The realistic worst case cannot now be realised due to the changes to the Order limits made at Deadline 2 in relation to the Electrical Connection Route, which has removed the route through the Thames Water owned Crossness LNR. The Environment Bank is now carrying out calculations in order to identify a site by the time the Applicant is ready to submit the OBLMS to the LBB for approval. 22.5 Mr Stansfield, for the LBB, welcomed the transparency and robustness of the process outlined, but raised a concern that there are no details of sites and how suitable they are. He noted that there should be a commitment to try and locate

Ref	Issue raised by the ExA	Applicant's Response
		sites in LBB, as there will be a loss in LBB unless offsetting is delivered within LBB. 22.6 Ms Martland confirmed that it is the aim to bring forward a range of sites so that the most suitable can be selected, in consultation with LBB. Whilst the preferred outcome is to find a site within LBB, the ecological outcome is the key driver and it may be that no suitable sites to achieve the ecological result required can be found within LBB. Ms Martland confirmed that more on process will be provided in writing to give an idea of how this will operate in practice. The Applicant has submitted the **Biodiversity Offset Delivery Framework** at Deadline 3 **(8.02.25)**. 22.7 In relation to LBB's concern that details of sites was not known, Mr Griffiths confirmed that the requirement in the DCO is that the Authorised Development cannot commence until the OBLMS is approved, including the details of the biodiversity offsetting, by LBB. If the strategy agreed with LBB is not then followed, the Applicant will be in breach of the DCO. 22.8 Mr Gray, for the BNEF, noted that the offsetting could be across several "sites" and questioned whether this could be across multiple sites of a small size. Ms Martland confirmed that that is not the intention and that the desired outcome is for habitat to be provided on one site. However, it may not be possible to deliver the offset needed on one site. This will not be known until site selection is progressed further. There is no set commitment at this stage but a range of sites will be provided to select the best option. Ms Martland explained that the objective was to select the best site in terms of biodiversity compensation and a large site may not be available or suitable. This will be documented in future submissions.

Ref	Issue raised by the ExA	Applicant's Response
		22.9 Mr Griffiths added that it is an ecologically driven process where the value is key.

7. AGENDA ITEM 6 – ISSUES RELATING TO TRANSPORT

Ref	Issue raised by the ExA	Applicant's Response
23	Use of road and river transport for delivery of waste	23.1 The ExA raised that LBB has challenged the flows during the construction and operational period. 23.2 Ms Daly, on behalf of LBB, confirmed that LBB has not yet worked through the additional information submitted by the Applicant at Deadline 2 and therefore LBB will submit a note on their updated position after having regard to the Deadline 2 representations. 23.3 Mr Griffiths, on behalf of the Applicant, explained that in response to the Relevant Representations, two technical notes have been submitted at Deadline 2 which address the concerns on construction traffic impacts (Appendix F and Appendix G to the **Applicant's Response to the Relevant Representations (8.02.03, REP2-054)**). 23.4 The ExA queried the basis for the 90 loads per day and whether that level included materials to the Anaerobic Digestion. 23.5 Mr Griffiths explained that the proposed 90 vehicles in and 90 vehicles out restriction is in addition to the Anaerobic Digestion, where Requirement 14 of the

Ref	Issue raised by the ExA	Applicant's Response
		dDCO (3.1, REP2-007) refers to Work No. 1A (which is the ERF, Work No. 1B is the Anaerobic Digestion facility). Following the hearings, the Applicant is content to include the Anaerobic Digestion plant in the restriction on heavy commercial vehicles (in Requirement 14) alongside the ERF in order to deal with the concerns raised by GLA and LBB. This is updated in the **dDCO (3.1, Rev 2)** submitted at Deadline 3. 23.6 Mr Tait, on behalf of the GLA and TfL, explained that TfL's understanding was that the restriction should be based on 81 loads per day and that this was the maximum throughput to the ERF based on the 25:75 split. The GLA noted that 7 tonne loads for 805,920 tpa was equivalent to around 80 loads per day. 23.7 As stated above, following the Hearing, the Applicant has included the Anaerobic Digestion plant in the restriction on heavy commercial vehicles (in Requirement 14) alongside the ERF. 23.8 Mr Griffiths, on behalf of the Applicant, confirmed that the ES concluded that impacts associated with the 100% by road scenario which was assessed would be acceptable, but that the Applicant has agreed to introduce the limit in Requirement 14 following stakeholders' concerns. The Applicant assumes a 7 tonne load per lorry but there is a lower tonnage that will come by vehicles and therefore the specified restriction allows a slight head room per day. 23.9 The ExA noted that the Applicant is proposing to use its allowance in full and can transfer allowance from RRRF to REP. Mr Griffiths confirmed that Requirement 14 allows REP to use any surplus that RRRF does not utilise. This would not result in a net increase as the allocation of movements has already been taken into account in the baseline and has already been consented for RRRF. Despite this

Ref	Issue raised by the ExA	Applicant's Response
		position which the Applicant maintains, following the hearing the Applicant is content to remove this transfer allowance, and therefore the only exception to the vehicle movements restriction is where a jetty outage is to occur. This is updated in the **dDCO (3.1, Rev 2)** submitted at Deadline 3. 23.10 The ExA asked how in practice the Applicant would be able to differentiate between movements to RRRF and REP. Mr Pike explained that in relation to REP, one of the operational benefits of the facility is that it can work in tandem with the existing RRRF. Each day the Applicant will understand vehicle movements to both facilities. This can be managed by its joint working arrangements. The Applicant contracts with waste suppliers on a tonnage basis and through these contracts will know which vehicles will be delivering that material, to which facility and what their size is, allowing advanced planning. Mr Griffiths confirmed that in advance of each day, REP will understand what is coming in and what is expected to be delivered by road to enable the Applicant to monitor the road vehicle movements accordingly. 23.11 Mr Griffiths explained that in terms of practicality, there would be an interface agreement between the two facilities and therefore they will run separately. This is not just in terms of Requirement 14, but in terms of all shared infrastructure. The benefit of the site is to minimise footprint as there already is existing infrastructure both plants can use. <u>Car parking</u> 23.12 Mr Griffiths explained that the CTMP secures the car parking reduction to 275 spaces, as set out in the **Outline CTMP** at **paragraph 5.3.1 (REP2-064)** and in Appendix G of the Applicant's Response to the Relevant Representations

Ref	Issue raised by the ExA	Applicant's Response
		(8.02.03, REP2-054) at paragraph 4.5. 23.13 The ExA asked where the parking spaces will be put. Mr Neve, for the Applicant, explained that the final details have not yet been set out, but that they will be on the Main Temporary Construction Compounds on Norman Road. 23.14 The ExA asked if this means that less land is required for construction. Mr Griffiths explained that the Main Temporary Construction Compound is on the Applicant's Group land, and therefore the Applicant is not seeking compulsory acquisition over that land. Temporary possession has been reduced as a result of the relocation of the Main Temporary Construction Compound. 23.15 Mr Clarke, for Arriva, asked how permanent the capped figure within Requirement 14 is in terms of going forward. Mr Griffiths clarified that as the cap is secured via a Requirement to the Order, it would apply unless an application to the Secretary of State was made. 23.16 The ExA asked if there are provisions encouraging workers to use other forms of transport. Mr Neve explained that the contractors will work to achieve modal shifts through measures such as the introduction of crew buses and encouraging walking. 23.17 Ms Harling-Phillips, for the Applicant, stated that 'Further Appraisal of Construction Traffic Impacts on A2016/A206 Corridor', at Appendix G to the **Applicant's Response to Relevant Representations (8.02.03, REP2-054)** explains the reduction in car parking spaces and explains the modal shift will be managed by the Workforce Travel Plan (of which the framework is contained within the **Outline Construction Traffic Management Plan – (6.3, REP2-064)**) which will encourage

Ref	Issue raised by the ExA	Applicant's Response
		non-car travel by construction workers. In addition, the Technical Note has considered the proposed car parking provision in relation to that provided on other large scale infrastructure project, such as North London Heat and Power Project and the Silvertown Tunnel project, and has determined that 275 car parking spaces is a reasonable proportion for a development of this size and technical complexity. 23.18 Mr De Laat, for the GLA, asked for a commitment to the crew shuttle buses as the wording at the moment in the Outline CTMP is that this "will be considered". Mr Griffiths explained that when the Applicant has a contractor onboard, discussions on the feasibility of this will be discussed. The final CTMP has to be consulted with TfL and approved by LBB as set out in Requirement 13, so the final form of commitments will be set out in that document, which TfL can comment on and which LBB must approve.
24	Delays to road users during construction of the electrical connection	24.1 The Applicant, at Deadline 2, submitted additional technical notes showing the impact at certain junctions and mitigation considered. Appendix G ('Further Appraisal of Construction Traffic Impacts on A2016/A206 Corridor') to the **Applicant's Response to Relevant Representations (8.02.03, REP2-054)** reviewed the junction impacts along A2016 corridor and Appendix F ('Traffic flows on A2016 Bronze Age Way and A206 Queens Road/Northend Road – Interface with Electrical Connection Works') to the **Applicant's Response to Relevant Representations (8.02.03, REP2-054)** looked at the implications of construction of the Electrical Connection along the A2016 / A206 corridor. TfL highlighted that the level of assessment on bus impacts should be explored further by the Applicant for TfL to know the delay construction would have on the buses, in order to determine the level of mitigation required.

Ref	Issue raised by the ExA	Applicant's Response
		24.2 Mr Clarke, for Arriva, explained that Arriva welcome the fact that the Applicant has had a meeting with TfL to start progressing the SoCG but noted that the Applicant has not approached Arriva to discuss the project. Arriva support GLA's statement in the Written Representation (at paragraph 3.1.42) that any changes to the bus network must relate to bus diversions, additional buses and be at no additional cost to TfL. The impact to public transport needs to be minimised. 24.3 Mr Neve, for the Applicant, explained that the Applicant will continue to engage with TfL. With the selected corridor, there is no anticipated need to close or divert bus services. A full response to the concerns raised by Arriva is provided in the Applicant's response to their relevant representation at section 5.11 of the **Applicant's Response to Relevant Representations (8.02.03, REP2-054)**. 24.4 The ExA asked if there will be any road closures for roundabouts. Mr Neve explained that at this stage the Applicant has not defined what temporary traffic management may be necessary. There is a potential interaction on services – including crossing bus services and along the route of others, but not on the bus route as a whole. 24.5 Mr Griffiths confirmed that the Applicant has amended Requirement 13 (the CTMP) to take on board comments made by TfL. 24.6 Mr Tait, for the GLA and TfL, noted that the Applicant contests the justification for further detailed modelling and assessment. The Applicant has responded on this point at paragraphs 6.4-6.6 within Appendix F 'Traffic flows on A2016 Bronze Age Way and A206 Queens Road/Northend Road – Interface with Electrical Connection Works' to the Applicant's Response to Relevant Representations

Ref	Issue raised by the ExA	Applicant's Response
		(REP2-054), which reads: *"6.4 Carrying out Transport Planning modelling of the impact of this period is estimated to take no less than six months to collect the requisite traffic data; prepare and fully validate the necessary models; and undertake the scenario testing. Having established the outputs from the models, a strategy for mitigation would need to be formulated and agreed. It is not known what that strategy would entail but, should it suggest physical network changes, it is anticipated that the implementation of those network changes would cause substantially more network disruption than the temporary road works for the construction of the Electrical Connection. The design of the changes would similarly take a long period to prepare, review, conclude and commission.* *6.5 The Applicant does not dispute that the construction of the Electrical Connection will cause temporary disruption to the road network – similar to other Statutory Utility roadworks which might be carried out in the area and across the wider network in London. However, there seems little justification in undertaking further and extensive theoretical analysis to demonstrate a point which cannot be proportionately mitigated.* *6.6 The Applicant therefore commits to continue to work with the London Borough of Bexley, as Local Highway Authority, and in consultation with TfL, to programme and manage the roadworks in such a way as to seek methods to minimise the impact of the roadworks on the A2016/A206 corridor through the development of an appropriate Construction Traffic Management Plan (CTMP). An outline for that CTMP is provided within the updated Outline CTMP (Rev 1), as submitted at deadline 2, which supersedes the Outline CTMP, Appendix L of*

Ref	Issue raised by the ExA	Applicant's Response
		the TA, Appendix B.1 of the ES (6.3, APP-066)." 24.7 TfL has informally confirmed, since a meeting with the Applicant on 31 May 2019, that they do not now require further modelling assessment work – including area micro-simulation. The Applicant is to include this point within the SoCG with TfL. 24.8 Councillor Borella raised a concern regarding the construction of the Electrical Connection on congestion and bus services and requested clarification on monitoring of where the lorries will go. Councillor Borella questioned whether other routes were considered by the Applicant and queried how the Applicant will communicate with residents regarding traffic management measures to be implemented. He raised a concern that pollution from traffic will have an impact on air quality. 24.9 Mr Griffiths confirmed that the Applicant has looked at alternative routes for the Electrical Connection, including going under the river. However the starting point is the most appropriate route for the Electrical Connection – reflecting not only effects on the transport network but also balancing other environmental effects. UKPN has carried out extensive studies to determine which is the most appropriate route. UKPN has concluded that this is the appropriate route following refinement, which has regard to minimising impacts on the road network. Under the Electricity Act 1980, UKPN must deliver an economical and viable route, but also has duties in respect of the environment. In relation to notification of lane closures, that is required by the Applicant under Part 3 of the DCO. The CTMP will ensure appropriate temporary traffic management (which might include diversion signs, etc).) and notifications will be put in place. Mr Griffiths also notes that road works such as those proposed to construction the electrical connection are common place by statutory undertakers like UKPN. Mr Neve explained that the

Ref	Issue raised by the ExA	Applicant's Response
		method of construction will be typical of other road works. The construction will not be along the whole of the electrical connection at one time, but will move along the corridor in 200-300 m sections. As such, the impact will be transient. Whilst there will be an impact during the peak period, the evidence submitted by the Applicant at Deadline 2 in the technical notes appended to the Applicant's Response to Relevant Representations (REP2-054) demonstrates that outside of the peak period there is capacity within the network to manage within a single lane and therefore lane closures are capable of being accommodated. The Applicant has included within the project description an option to have two working areas for the Electrical Connection, but these would be co-ordinated such that they are not adjacent to each other. 24.10 Councillor Borella asked when the surveys of the corridors took place. Mr Neve explained that the surveys concerned were discussed at the scoping stage with various parties. The Applicant undertook a series of classified counts using video technology, some done over a week to get trend information and at junctions at peak periods. Figure 2.1 of the Transport Assessment (Appendix B.1 to the ES (6.3, APP-066)) shows survey locations of the16 traffic counts and 6 manual classified counts. 24.11 The ExA asked how fixed the routeing of deliveries to the site is. Mr Neve explained that the Applicant assumed that vehicles will travel on the strategic road network and assumptions were made in the appraisal work. However, the Applicant cannot fix what these contracts are at this stage and where these vehicles will be coming from. The assessments of traffic effects in the vicinity of REP have assumed commercial vehicles will use the strategic road network, however, vehicles undertaking refuse collection are required to use local roads

Ref	Issue raised by the ExA	Applicant's Response
		and are therefore outside of the control of the Applicant.
25	Stopping up of northern end of Norman Road	25.1 Mr Stansfield, for LBB, stated that agreement is reached in principle to provision of a turning head but that LBB want to ensure that this is included in the DCO. Article 13 of LBB's draft DCO submitted at Deadline 2 includes a suggested form of words. 25.2 Mr Griffiths stated that the precise wording has not been discussed with LBB but that the Applicant is happy in principle to have a provision that prevents stopping up until the layout of the termination has been agreed by approval of detailed drawings. Requirement 8(3) of the updated **dDCO (3.1, REP2-006)** allows for the approval of the "layout for the termination of the highway" with LBB.

8. AGENDA ITEM 7 – ISSUES RELATING TO FLOOD RISK

Ref	Issue raised by the ExA	Applicant's Response
26	Flood risk	26.1 The ExA raised the concern of the EA on the future impact of the flood wall. Mr Griffiths confirmed this has been resolved with the EA and has been agreed, as confirmed in the Written Representation submitted by the EA (REP2-069). 26.2 The ExA asked if the use of the flood bank for the Open Mosaic Habitat is agreed. Mr Griffiths confirmed that discussions are ongoing in relation to this concern. 26.3 The ExA asked if the plans showing the overlap of the Flood Risk Activity Permit Area (FRAPA) was acceptable to the EA. Mr Griffiths explained that the Applicant

		is in discussions with the EA in relation to the FRAPA and has agreed in principle that a requirement will be inserted in the dDCO dealing with this. The exact wording of this requirement is currently in discussion and should be agreed shortly.

Annex A

Figure 3.1 of the ES