Riverside Energy Park

Applicant's response to Greater London Authority Deadline 5 and 6 Submissions

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Appendices

1 Introduction

1.1 Purpose of this Document

1.1.1 This document provides a response to the documentation submitted by the Greater London Authority (GLA) at Deadline 5 and Deadline 6. This includes a response to the following documents:

- Schedule 1 – Deadline 5 – GLA response to Applicant document 8.02.35 "Applicant's response to the GLA's Deadline 3 Submissions" (**REP5-031**);
- Schedule 2 – GLA comments on document 8.02.36 "Applicant's response to London Borough of Bexley Deadline 3 Submission" (**REP5-032**);
- Schedule 3 – GLA's comments on London Borough of Bexley comments on the Applicant's revised draft DCO submitted at Deadline 3 (**REP5-033**);
- Schedule 4 – GLA comments on new relevant documents submitted by the Applicant (**REP5-034**); and
- Schedule 5 – GLA response to ExA's second written questions (ExQ2) (**REP6-008**).

2 Applicant's Response to Schedule 1

2.1 Introduction

2.1.1 This section provides a response to *"Schedule 1 – GLA response to Applicant document 8.02.35, "Applicant Response to the GLA's Deadline 3 Submissions"* (**REP5-031**), submitted by the GLA at Deadline 5.

2.1.2 GLA (and TfL with respect to transport matters) have raised the following matters within Schedule 1:

- Projection of Volumes of Waste Available;
- Waste Hierarchy;
- Waste Transfer Station;
- CHP/Heat;
- Air Quality (please note the Applicant has provided a comprehensive response to issues relating to Air Quality in a separate submission at Deadline 7 - The **Applicant's response to Air Quality Matters (8.02.70))**.
- Transport; and
- Draft Development Consent Order.

2.2 Projections of Volumes of Waste Available

Item	Applicant's Comment	GLA's Comment	Applicant's Response
2.1.4 – 2.1.22	Discrepancy in calculations for London	1. The GLA has reviewed the Applicant's response to the GLA Deadline 3 Submission including its detailed rebuttal made in response to the GLA's Appendix 2A (presented in Appendix A to document 8.02.35). The GLA has sought to avoid unnecessary repetition of previous comments but seeks to highlight those issues where it considers that the Applicant continues to promote erroneous statements. In summary, the GLA does not accept that there is any discrepancy in its calculations, for the reasons explained below. 2. At paragraph 2.1.4, the Applicant states that it 'is not readily possible for the Applicant to determine the source of the divergence between the GLA's and the Applicant's forecast of residual wastes. Not least because the GLA has failed to provide a complete set of modelling'. 3. The GLA has clearly set out the basis of its model findings in 'Appendix 2A Cory DCO: GLA Post Hearing Written Oral Submission Summary', submitted at Deadline 3. In particular, within this document Tables 1 and 2 clearly present the GLA methodology, and demonstrates the points of divergence with the Applicant's approach and the reasons why the GLA considers that the Applicant's approach is flawed (for brevity these findings are not repeated here, but are provided within the Deadline 3 document). 4. It is neither necessary or appropriate for the GLA to release any further modelling, not least as the Applicant is able to clearly identify the source of divergence with its model from the information provided in Appendix 2A Cory DCO: GLA Post Hearing Written Oral Submission Summary. The GLA considers that the Applicant should adopt the GLA's assumptions rather than contest the structure of the model. 5. Likewise, comments in paragraph 2.1.5 and 2.1.6 of document 8.02.35 do not appear to acknowledge the details provided by the GLA in Table 2 within Appendix 2A. The Applicant states at paragraph 2.1.5 that the GLA's figures "simply do not add up" and provides worked examples in the two bullet points that purport to demonstrate how the GLA has underestimated waste arisings. However, the worked examples are flawed as they use a factor of 80% to estimate the municipal component of C&I waste, whereas the correct figure (derived from Table 1 of the Appendix 2A) is 76%. There is therefore no error in the GLA figures, and the GLA has explained in detail in Appendix 2A why it considers the Applicant's calculations are flawed. NB. It is assumed that the second bullet point in paragraph 2.1.5 of document 8.02.35 refers to 2036, not 2026. 6. In paragraph 2.1.7, the Applicant criticises the GLA for "Forecasting for household waste only, rather than all Local Authority Collected Waste". As noted in the GLA Further Submission at Deadline 4 paragraphs 2.60 - 2.61, 'local authority collected waste' (LACW) encompasses waste generated by households, and 'trade waste' (i.e. collected by councils or their contractors). Since trade waste is accounted for as part of the commercial and industrial waste tonnage, the totality of local authority collected waste is included in GLA forecasts. Simple addition of LACW and commercial and industrial (C&I) waste would be a methodological error – since local authority trade waste would be included twice (double counted). 7. The Applicant also refers in paragraph 2.1.7 to the use of commercial and industrial (C&I) waste data which is 'out of date'. The GLA concurs that there is a need for continuing improved capture of data on C&I waste. However, the Defra C&I waste	1-3. The Applicant has no comments on comments 1 to 3. 4. In making its submissions, the GLA is relying upon modelling that has not been shared with either the Examining Authority or the Applicant. This means that it cannot be properly scrutinised or replicated. The GLA's original modelling would be helpful to assist both the Examining Authority and the Applicant to understand how the GLA has arrived at its conclusions. The Applicant has not contested the structure of the model that the GLA has used; it has not seen the model, despite requesting it on a number of occasions. The model underpins both the London Environment Strategy and the draft London Plan and therefore should be available for scrutiny. As set out in the **London Waste Strategy Assessment (LWSA)** of the **Project and its Benefits Report (Annex A of 7.2, APP-103)** and the Applicant's later submissions, most recently confirmed (at **Paragraph 5.3.3** of **the Applicant's response to GLA Deadline 4 Submission (8.02.46, REP5-017))**, the Applicant adopted the outcome of the GLA's modelling (and consequently also its assumptions) used in its preparation of the draft London Plan. As a substantially prepared development plan policy document, this is an entirely appropriate reference source for the Applicant to use. At **Paragraph A.3.7** of **Appendix A** to **the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014)**, the Applicant has also referenced the GLA's assumption in relation to C&I waste suitability for REP. Whilst this assumption is not fully justified by the GLA, the Applicant has demonstrated that even assuming only 80% of all residual wastes (c.900,000) are suitable for combustion, there remains a need for new residual waste treatment of c.700,000 tonnes. The GLA only introduced its assumption in relation to mass loss in its submissions at Deadline 3. As the Applicant responded at **Appendix A** to **the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014)**, the GLA neither explains or justifies their assumption and despite this, it appears to be reliant on new treatment facilities being brought forward to achieve the assumed mass loss. The Applicant is not able to understand which such proposals the GLA is referring to. 5. The GLA is correct, the second bullet point at paragraph 2.1.5 should state 2036, not 2026. However, this submission is responding to the GLA's Appendix 2A (see **REP3-039**), and specifically Table 2; it is wholly acknowledging the content of that submission. In preparing this response, the Applicant has used a factor of 80%, as this is the figure stated in Table 3 of the GLA's Written Representation (see **REP2-071-REP2-074**). The GLA is also correct to advise that a factor of 76% can be deduced from Table 1 of the GLA's Appendix 2A. However, as set out at **Appendix A** of **the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014)**, the GLA's Table 1 is not without its difficulties; principally in that it is based on out of date information and differs from the information relied upon within the London Environment Strategy (Table 9 of Appendix 2 the London Environment Strategy: Evidence Base (the 'LES: Evidence Base') is the relevant reference). These differences are shown at **Table A.2** of **Appendix A** of **the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014).** In any event, the GLA's calculations at Table 2 are still incorrect. 76% of total C&I waste at 2036 is 3.9 million tonnes, added to the household waste forecast gives a total of 7.4 million tonnes, not 7.3 as stated in Table 2. 50% household recycling leaves 1.75 tonnes of residual household waste. 75% municipal C&I waste recycling, would remove almost 3.0 million tonnes,

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		survey relied upon by the GLA remains the most recent statistically rigorous estimate of C&I waste generated in London. With funding support from the London Waste and Recycling Board (LWaRB), the Defra survey involved an extrapolation from a sample of nearly 2,000 individual businesses, approximately half of which were undertaken on a face-to-face basis. Given the inherently costly nature of these surveys, they are necessarily infrequent. 8. The Applicant's use of pejoratives such as 'spurious', 'unjustified', 'arbitrary' (in paragraphs 2.1.7, 2.1.8 and elsewhere) is misleading and unhelpful. GLA projections have been developed via a systematic and evidence-based approach, again detailed in Appendix 2A as referenced above. 9. Paragraphs 2.1.9 to 2.1.22, including Figure 1 on page 10, simply reiterate the modelling approach adopted by the Applicant, which has been critiqued in full in the GLA's Deadline 3 responses and shown to be flawed. The Applicant states at 2.1.9 that it 'very simply uses the GLA's data' in its calculations. The GLA has demonstrated in its Written Submission of Oral Case Appendix 2A document that the Applicant's use of GLA data is flawed, principally because it ignores two key factors: • the suitability of residual waste streams; and • reduction in the mass of residual waste due to pre-treatment. 10. Consideration of these key factors is pivotal to meaningful quantification of residual waste tonnages requiring incineration, and this is well-recognised by professional commentators on the waste sector. For example, in the report 'Residual Waste in London and the South East Where is it going to go…?' (October 2018)1, author Tolvik: • specifically identifies 'Municipal – like' residual C&I waste as being the component suitable as incineration feedstock (with the implication that the non-municipal like component of C&I is intentionally excluded – e.g. Figure 5, p. 5 at the above reference); and • quantifies losses in the residual waste volume due to MBT treatment (e.g. Figure 10, p. 9 within the above). 11. It is surprising that the Applicant has chosen to deviate from the approach used in the Tolvik October 2018 report in its own calculations for incineration requirements for the specific case of London. In omitting the above effects, the Applicant's scenarios presented in 'The Project and its Benefits Report' (document 7.2), Table 6.1, p. 6.1 are therefore inconsistent with the approach of Tolvik (whom the Applicant has referred to as providing "recent, wide ranging and accurate information regarding residual waste management in London and the South East" at para 1.5.12 within the same report). 12. Paragraph 2.1.15 of document 8.02.35 states that the GLA "incorporate a 5% assumed reduction over time to 2031". To clarify, the assumption is a 5% reduction in waste generation per capita (household waste) and per employee (C&I) waste due to application of the waste hierarchy in which 'reduce' is at the top of the hierarchy. The GLA assumptions are in fact that due to rising population and employment, household and C&I waste arisings increase over time in absolute	leaving just under 1 million tonnes of residual municipal C&I wastes. Together, the residual municipal waste total would be 2.7 million tonnes. Subtracting 10% (to account for mass loss) would leave a revised total of 2.45 million tonnes, which is the figure that should be presented in Table 2, not 2.3 million tonnes. Subtracting operational capacity within London (2.2 million tonnes) would leave (under the GLA's approach) a need for 250,000 tonnes of residual waste treatment capacity, not 90,000 as stated in Table 2. It should be noted that even when the calculations are undertaken correctly, the assumption used within the calculations are not appropriate for the reasons outlined above. 6. The Applicant has addressed the distinction between the different waste streams clearly in all its submissions, and most recently at **Paragraphs 5.3.4** to **5.3.6** of **the Applicant's response to GLA Deadline 4 Submission (8.02.46, REP5-017)**. The key points are that: the Applicant has considered actual LACW arisings; has separated these from general C&I waste tonnages so as to avoid the potential for double counting; and that Tables 2 of both the GLA's Written Representations and Appendix 2A are forecasts only, and do not use the most up to date available data. 7. The Defra 2009 Survey may well have been extensive at the time it was undertaken, but the fact remains that it is now out of date. This is demonstrated (in some detail) in **Appendix A** of **the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014)**, with paragraph A.2.6 concluding: ' *The Defra 2009 Survey relied upon by the GLA is simply not reflective of the commercial and industrial activities undertaken in London today, let alone in another ten years or by 2036. This means that the GLA's submission are relying on detailed analysis that is unlikely to be relevant*.' 8. The Applicant has been careful and measured in its use of language when responding to all interested parties including the GLA. In this instance, 'spurious' is appropriate to the context as it is used in National Planning Policy for Waste, which at paragraph 2, advises that '*in preparing their Local Plans, waste planning authorities should, to the extent appropriate to their responsibilities: ensure that the planned provision of new capacity and its spatial distribution is based on robust analysis of best available data and information, and an appraisal of options. Spurious precision should be avoided;* …'. The use of 'arbitrary' and 'unjustified' are made in relation to the GLA's assumptions regarding C&I waste and mass losses through pre-treatment introduced at Deadline 3. As set out at **Appendix A** of **the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014)**, the GLA's assumptions in relation to C&I wastes are not without difficulties; principally in that it is based on out of date information and differs from the information relied upon within the London Environment Strategy (Table 9 of Appendix 2 the London Environment Strategy: Evidence Base (the 'LES: Evidence Base') is the relevant reference). These differences are shown at **Table A.2** of **Appendix A** of **the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014).** The GLA's application of an assumption in relation to mass loss was only introduced by the GLA in its Submissions made at Deadline 3. Therefore, so far as the Applicant is aware, it has not been an assumption adopted by the GLA as part of a systematic or evidence-based policy approach. 9. The GLA's criticism of the Applicant's assessment focusses on two matters: the suitability of residual waste streams and reduction through mass loss. The GLA raises no other objection to the analysis set out in the **LWSA (Annex A of 7.2, APP-103)**. The Applicant has demonstrated within **Appendix A** to **the**

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		terms.	**Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014** that these additional assumptions raised by the GLA should not be relied upon. By contrast, the **LWSA (Annex A of 7.2, APP-103)** presents a wholly credible and reasonable demonstration that REP will not prejudice the waste hierarchy within London, or elsewhere. Despite this, the Applicant has responded to concerns on this matter and introduced Requirement 18, which provides a commitment from the Applicant to produce a scheme, to be agreed with LBB, to ensure the waste hierarchy is not prejudiced. 10. These factors are not pivotal to meaningful quantification of residual waste tonnages. They are simply assumptions being applied to forecasts; forecasts that are based on data that is out of date, and in the case of C&I wastes cannot be fully evidenced. In its most recent UK Statistics on Waste (February 2019) Defra states '*C&I waste generation remains extremely difficult to estimate owing to data limitations and data gaps. As a result, C&I estimates for England have a much higher level of uncertainty than Waste from Households (or other Local Authority Collected Waste) and users should exercise caution in application of the figures and interpreting trends over time*'. It is simply not appropriate to seek the level of precision that the GLA does (and which national policy states should be avoided) on data that cannot be checked and validated. The Tolvik Report (Residual Waste in London and the South East Where is it going to go…?) does identify municipal-like C&I wastes. The Applicant has already agreed with the GLA that not all of the C&I waste stream will be suitable for REP. The reference in the Tolvik Report is to identify those elements of the C&I waste stream that will fall within the definition of 'municipal waste' and consequently fall under the recycling target of 65% by 2035. That element of the C&I waste stream that does not fall under the definition of 'municipal waste' is not subject to any recycling targets. The Applicant has simply applied recycling targets to the totality of the C&I waste stream, with the potential that a greater quantity of C&I waste overall is assumed to be recycled than would be actually be required by policy. It is a simple approach, but is appropriate and applies the policy requirements of the adopted and draft London Plans and the London Environment Strategy. Figure 10 of the Tolvik Report does identify mass losses from mechanical biological treatment plant; the Applicant agrees that this does occur. However, the Tolvik Report is able to make this analysis on the basis of knowing both the waste types and quantities that those facilities accept. It is an appropriate calculation to make to understand the effect of those facilities on the residual waste market. The GLA's assumption regarding mass losses, only introduced at Deadline 3, is applied to waste tonnages that are simply forecasts based on out of date information; the GLA cannot have the same level of confidence in either the waste type or tonnages that it is analysing. 11. The Applicant's approach taken in the **LWSA (Annex A of 7.2, APP-103)** is reasonable and valid. The **LWSA (Annex A of 7.2, APP-103)** is reliant on the GLA's forecasts (only partially updated with LACW data from 2016/17) and is based on London's planning policy, including the GLA's objectives and targets relating to waste reduction and recycling. The Tolvik report presents a commercial 'real-world' context The Applicant still considers the Tolvik Report to provide '*recent, wide ranging and accurate information regarding*

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			residual waste management in London and the South East', including its conclusions that '*in the Central scenario 4.7Mt of EfW capacity over and above that currently operational in London and the South East would need to be available*.' (page 24). Both approaches demonstrate a need for residual waste management capacity within London and the South East. 12. The Applicant notes the GLA's clarification and confirms that as the **LWSA (Annex A of 7.2, APP-103)** incorporates the waste forecasts set out in the adopted and draft London Plans, the assumption has been carried through in the Applicant's assessment.
2.1.23 – 2.1.24	Discrepancy in calculations for South East region	13. Paragraphs 2.1.23 to 2.1.25 of document 8.02.35 repeat previous assertions in respect of the existence of a 1.5 million tonne (Mt) capacity gap existing in authorities surrounding London. The GLA's Further Representations under deadline 4 (paragraphs 2.67 to 2.71) show that this finding is contingent on • a dismissal of the waste management projections of Kent County Council and Essex County Council; • failure to consider the most recent published forecasts in some cases; and • misrepresentation of the findings of some Councils. 14. Rather than working within the development framework set by Waste Planning Authorities, the Applicant has sought to challenge and undermine forecasts where not supportive to its case. 15. The Applicant dismisses, at paragraph 2.1.24, the use of relevant precedent for a project in Essex on the grounds that it relates to "a wholly different project, site and policy context". This is disingenuous. Firstly, the site is within the South East region and therefore its policy context is relevant as being within the stated catchment area for the REP. Secondly, the Applicant uses precedent from other sites and project when it suits it for example when discussing the issue of an annual waste tonnage cap in section 1.2 of London Borough of Bexley at Deadline 3 (document 8.02.36).	13-14. The Applicant's reference to residual waste treatment requirements within authorities surrounding London, and the GLA's criticisms of the Applicant's approach is addressed from **Paragraph 5.3.20** of **the Applicant's response to GLA Deadline 4 Submission (8.02.46, REP5-017).** The Applicant confirms that it has considered the most recent published forecasts and has quoted directly from relevant Local Plan documents, with the exception of Kent (where serious concerns are held and have been submitted by various parties in writing to the local plan Examination). Even in the case of Kent, the Applicant has not inserted forecasts that it believes to be correct, but has simply identified no capacity gap or need. This is not considered to be an approach that undermines those forecasts, but is considered to be an entirely reasonable solution. 15. The Applicant is correct to reject the GLA's reliance on the Essex project. It may be located in the South East, but as the GLA will be aware, there is no longer any south east regional based policy. Essex County Council will determine that project on the basis of its planning merits and relevant development plan policy; neither of which are relevant to REP. The GLA had used the Essex project to seek to demonstrate how REP will disadvantage the waste hierarchy. As has been consistently demonstrated by the Applicant, and confirmed within this response, the **LWSA (Annex A of 7.2, APP-103)** presents a wholly credible and reasonable demonstration that REP will not prejudice the waste hierarchy within London, or elsewhere. The Applicant has been careful, throughout the Examination, to only use examples and precedents, where it is felt they are both valid, and helpful to

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			the Examination. **Section 1.2** of the **Applicant's Response to the London Borough of Bexley at Deadline 3 (8.02.36, REP4-015)**, referred to example Requirements relating to tonnage caps and were therefore not related to geographical / locational considerations. Given the limited number of applications within London, it was wholly appropriate to facilities further afield.
2.1.25	Paragraph 2.1.25 refers to Tolvik as 'the Government's adviser in its preparation of the Resources and Waste Strategy'.	16. Paragraph 2.1.25 of document 8.02.35 refers to Tolvik as "the Government's adviser in its preparation of the Resources and Waste Strategy'. This appears to be a misrepresentation of the role of Tolvik. The Tolvik report 'Residual Waste in London and the South East - Where is it going to go...?2' adopts a household waste recycling rate of 55% by 2035 under its 'Central' scenario (10% short of the Resource and Waste Strategy target of 65%). Moreover, Tolvik has been quoted as stating that it 'is difficult not to conclude that the [gap] between political aspirations (as measured by indicative 'goals' and generally soft targets) and the overall ability to deliver them has potentially never been so great'3. Tolvik's position therefore appears in conflict with, and critical of, the Government's Resource and Waste Strategy.	16. The Applicant made an error in referring to Tolvik in that manner. However, it is correct that the Tolvik Report is quoted by Defra in the Resources and Waste Strategy Evidence Annex and used as a comparator, leading Defra to conclude '*The risk of a gap in capacity is, however, still relevant, as projections on future capacity, exports and arisings are subject to uncertainty.*' (page 78) The Applicant does not agree that Tolvik's position is critical of the Resources and Waste Strategy. The assessment undertaken by Tolvik considers a number of assumptions to identify a range of outcomes. The Circular Economy (CE) Target scenario considers recycling rates of 60% for household waste and 70% for municipal-like C&I waste by 2035. Those assumptions include meeting a level of 65% recycling, but also lesser rates, so as to understand the implications for future residual waste management. This is an entirely appropriate approach. In any event Tolvik's Central scenarios aligns with: adopted London Plan policy 5.16/B/c, seeking 50% LACW recycling by 2020 and '*aspiring to achieve 60 per cent by 2031*'; 60% household waste recycling by 2031 assumed in preparing the draft London Plan; and the London Environment Strategy targets of 50% LACW recycling by 2025 and aspiring to achieve 50% household waste recycling by 2030 (policy 7.2.1).
2.1.28 – 2.1.29	"The LWSA (doc 7.2) fundamentally assumes that the Mayor's policy priorities of achieving the Circular Economy will be delivered."	17. Paragraphs 2.1.28 – 2.1.29 of document 8.02.35 state "The LWSA (document 7.2) fundamentally assumes that the Mayor's policy priorities of achieving the Circular Economy will be delivered." This is refuted by the GLA given the flawed nature of projections developed by the Applicant.	17. As the Applicant has consistently confirmed, the **LWSA (Annex A of 7.2, APP-103)** incorporates of the Mayor's policies in relation to waste management, assuming that these will be met such that the resultant residual wastes are those that remain after policy has been achieved. The GLA has provided no criticism of the LWSA other than in relation to the composition of C&I waste and mass losses through pre-treatment, both matters that the Applicant has demonstrated are neither relevant nor important. And even when applied, still demonstrates a need for additional residual waste treatment capacity.

2.3 Waste Hierarchy

Item	Applicant's Comment	GLA's Comment	Applicant's Response
3.1.1 - 3.1.3	"The LWSA (doc 7.2) demonstrates that delivering the waste hierarchy in London (reducing waste arisings over time and achieving 65% recycling) there remains a need for new energy recovery capacity to divert remaining wastes from landfill".	18. Paragraphs 3.1.1 – 3.1.3 of document 8.02.35 state "The LWSA (document 7.2) demonstrates that delivering the waste hierarchy in London (reducing waste arisings over time and achieving 65% recycling) there remains a need for new energy recovery capacity to divert remaining wastes from landfill". 19. The GLA continues to disagree with the Applicant. As previously set out, for example in the GLA's Rebuttals Sheet 4 'Comments on other documents provided by Cory' this assertion relies on a misleading analysis of London's waste flows.	18-19. As stated previously within this Response, the GLA has provided no criticism of the LWSA other than in relation to the composition of C&I waste and mass losses through pre-treatment, both matters that the Applicant has demonstrated are neither relevant nor important and do not change the fact that there is still a need for additional residual waste management capacity. It is correct to state that the **LWSA (Annex A of 7.2, APP-103)** '*demonstrates that delivering the waste hierarchy in London (reducing waste arisings over time and achieving 65% recycling) there remains a need for new energy recovery capacity to divert remaining wastes from landfill.*' The Applicant has responded to the GLA's comments (made in its Submission at Deadline 3 – Sheet 4: GLA commentary on other documents prepared by the Applicant for Deadline 2) in **Section 4** of **Appendix F** to the **Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014).**
3.1.4 – 3.1.25	Further insistence that the ERF will only be able to accept residual waste by virtue of its Environmental Permit and duty of care.	20. The Applicant continues to make the statement, which the GLA considers to be flawed, that the ERF would only be able to accept residual waste by virtue of its Environmental Permit and duty of care. 21. The GLA accepts that the Applicant is not a waste collector. Nevertheless, it maintains that the Applicant is bound by the duty of care, as confirmed by the Applicant at paragraph 3.1.14, which states that the "Applicant, as the operator of the Waste Transfer Stations, is also subject to the duty of care provisions, including to implement the waste hierarchy". The GLA would also assert that the Applicant has a duty of care as operating an establishment which imports and recovers waste. The GLA would wish the Applicant to clarify how it would apply its duty of care responsibilities; whether it would ensure separation of recyclables from residual waste at its transfer facilities prior to delivery to REP or ensure that recyclables are excluded from the feedstock being delivered to the REP by other means. This is particularly important as the GLA continues to refute the Applicant's assertion that the necessary control would be applied through the environmental permit. This view was confirmed by the Environment Agency as noted in the GLA's Written Response to Oral Hearing at paragraph 13. 22. Paragraph 3.1.15 asserts that "REP will only be able to accept, by virtue of its Environmental Permit, waste that is classified as 'residual' waste". Within its Environmental Permit application 'Riverside Energy Park, Environmental Permit Supporting Information' (December 2018)4, the Applicant lists waste codes which are to be accepted at the ERF under para. 2.2.1, Table 4. Classified under the European Waste Catalogue (EWC) system, proposed waste codes listed to be processed at the ERF encompass a range of recyclable materials including (but not limited to) the following examples: • EWC 02 01 04 – waste plastics (except packaging); • EWC 15 01 01 – paper and cardboard packaging; • EWC 15 01 03 – wooden packaging; • EWC 17 02 01 – Wood • EWC 19 12 08 – Textiles • 20 01 08 – biodegradable kitchen and canteen waste. 23. It is therefore evident from the Permit application that the Applicant explicitly proposes acceptance of a range of segregated waste streams which could potentially be recycled. The GLA has previously provided evidence (e.g. Written Submission of Oral Case, agenda item 3.2) with regard to how the Environment Permit would not prevent the use of non-residual feedstock. This undermines the Applicant's assertion that the Environmental Permit would constrain the Applicant to accept residual waste only.	20-22. The Applicant maintains its previous positions, as explained in **Paragraphs 3.1.4** to **3.1.25** of **Applicant's response to the GLA's Deadline 3 Submissions (8.02.35, REP4-024)**. The Applicant is not a waste collector and REP itself is just one element of the overall infrastructure network needed in London to ensure waste is managed appropriately. However, the Applicant has proposed **Requirement 18** in the **dDCO (3.1, REP5-003)** which would require the Applicant to prepare a scheme setting out arrangements for maintenance of the waste hierarchy and it is considered that this would address the GLA's concerns. 23. The Applicant notes that source segregated waste will only be accepted at REP, if it is contaminated due to how it has been collected, stored or treated prior to being delivered to REP. Therefore, it would be unsuitable for recycling. This was previously stated in **Environmental Permit and Air Quality Note (8.02.06, REP2-057).**
3.1.24	"However, the Applicant notes the GLA's concern on this matter. Whilst the	24. The GLA welcomes this concession in principle, though wording of any requirement would be critical. This is particularly the case given that, as demonstrated above, it appears that the Environmental Permit as proposed would sanction acceptance of a wide range of recyclable	24. As confirmed at Deadline 5, the Applicant has included a Requirement (**Requirement 18**) in the **dDCO (3.1, Rev 3, REP5-003)** that requires the undertaker to submit to the relevant planning authority for approval a waste hierarchy scheme, setting out arrangements for

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	Applicant maintains that such a requirement is not necessary or supported by policy, the Applicant is willing to consider the inclusion of a requirement in the dDCO to be submitted at Deadline 5 to ensure the waste hierarchy is followed."	waste streams. The GLA would also seek for the Applicant to demonstrate a clear methodology by which this requirement would be effectively implemented, and capable of verification, on a day to day operational level.	maintenance of the waste hierarchy.

2.4 Waste Transfer Station

Item	Applicant's Comment	GLA's Comment	Applicant's Response
3.2.3	"The riparian Waste Transfer Stations listed above have existing planning and Environmental Permit consents, with sufficient capacity to accept the waste required by REP. The Applicant can confirm these consents do not have any limits placed on them regarding total daily vehicle movements. These consents have in turn already considered the environmental and traffic impacts associated with the delivery of waste material to these facilities irrespective of the destination of that material".	25. Section 3.2 of document 8.02.35 addresses the riparian Waste Transfer Stations (WTSs). Paragraph 3.2.3 states that "The riparian Waste Transfer Stations listed above have existing planning and Environmental Permit consents, with sufficient capacity to accept the waste required by REP. The Applicant can confirm these consents do not have any limits placed on them regarding total daily vehicle movements. These consents have in turn already considered the environmental and traffic impacts associated with the delivery of waste material to these facilities irrespective of the destination of that material". The GLA welcomes this confirmation that there is no breach of existing planning and Environmental Permit consents. 26. Whilst the GLA accepts that the riparian WTSs have existing consents, the existing consents are largely historical and therefore do not take account of current traffic and other environmental conditions in and around the WTSs. The Applicant's ES also does not consider the expected volume of waste to be managed at the WTSs or provide any assurance that the WTSs can effectively manage additional waste. It is considered reasonable to request modelling of impacts of additional transport to WTS, and other amenity issues associated with their use, especially as existing planning permissions are unlikely to have been subject to EIA. 27. As currently presented in the DCO application, the Applicant could bring waste from say, Bristol, by road to the WTS and it would be counted as a riparian transfer in relation to REP. The GLA does not believe that the REP should be allowed to operate in this way, which defeats the purpose of a selecting a riparian location to maximise waste transport by river. In order to avoid the transfer of waste from remote sources via the riparian WTSs into central London the Applicant should commit accept a requirement to ensuring that only waste generated in London to be managed at the REP is transferred via the WTSs within London.	25. The Applicant welcomes the GLA's acknowledgement that there is no breach of existing planning and Environmental Permit consents. 26-27. The Applicant operates a network of four existing riparian waste transfer stations situated along the River Thames in London (Smugglers Way – Wandsworth, Cringle Dock – Battersea, Walbrook Wharf – City of London and Northumberland Wharf – Tower Hamlets). As set out in **Table 2.1** of **the Applicant's response to the ExA's Further Written Questions (8.02.60, REP6-002)**, the Applicant has some 1.390 million (m) tonnes of consented riparian waste throughput capacity available at the existing waste transfer stations in London. Of that, approximately 0.668 mtpa of waste is transported by river each year to serve the Riverside Resource Recovery Facility (RRRF). Therefore, after RRRF, there is 0.722 mtpa of existing surplus spare consented throughput capacity available to REP in London. In context, REP's nominal throughput is 0.655 mpta and is the anticipated level of operational throughput that will be achieved. REP's maximum throughput is 0.805 mtpa. This is the upper level tested as a 'reasonable worst case' for the ES. The Applicant also has an additional 0.075 mpta of permitted throughput at the Port of Tilbury, which is not yet operational. Thus, including the Port of Tilbury, total river throughput capacity available for REP is 0.797 mtpa. Furthermore, consideration of methods of transport to the WTSs is not necessary as each of these has already been granted planning and Environmental Permit consents which have considered the impacts of transporting waste to them and the environmental conditions around them. The Applicant has a commercial imperative to utilise their existing WTS capacity to capture residual C&I waste generated in London which is currently going to landfill or being exported for treatment overseas. However, it is not appropriate or realistic for only waste generated in London to be treated at REP. This would be wholly against both the proximity principle and London's (which currently export significant amounts of waste) policy for net self-sufficiency.
3.2.4-3.2.6	Applicant disputes that Cringle Dock is not in compliance with its EP	28. The GLA maintains its view set out in paragraphs 20-23 of GLA Post Hearing Written Submission of Oral Case that that Cringle Dock WTS is operating at full capacity for managing waste suitable for treatment at the proposed ERF.	28. The Applicant disputes this point. **Appendix G** of the **Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)** provides confirmation from the Environment Agency that there has not been a breach to the Environmental Permit for Cringle Dock Waste Transfer Station (WTS). Furthermore, as set out in **Table 2.1** of **the Applicant's response to the ExA's Further Written Questions (8.02.60, REP6-002)**, the Applicant has 0.308 mtpa of consented riparian waste throughput capacity available at Cringle Dock. Of that, approximately 0.282 mtpa of waste is transported by river each year to serve RRRF and, therefore after RRRF, there is 0.026 mtpa of existing surplus spare consented throughput capacity available to REP at Cringle Dock. As such, Cringle Dock WTS is not operating at full permitted operational capacity.

2.5 Heat Network Priority Area

Item	Applicant's Comment	GLA's Comment	Applicant's Response
4.2.1-4.2.3	The Applicant considers that both residential heat demand (specifically the Thamesmead Waterfront development) and industrial and commercial heat demand at Burt's Wharf are grossly under represented within Ramboll's Phase 2 feasibility study 'Thamesmead & Belvedere Heat Network Feasibility Study: Work Package 2'.	29. Section 4.2 of document 8.02.35 addressed heat networks. The GLA refutes the Applicant's attempt at paragraphs 4.2.1 – 4.2.3 to discredit the Ramboll report and maintains its concerns, as set out in the Written Representation WR1: Heat Offtake and Deadline 3 Submission in relation to Requirement. This stated that the Applicant has not undertaken sufficiently robust analysis of the heat supply opportunities to determine whether the ERF would be likely to operate as a CHP plant and therefore whether it would be able to contribute to reducing carbon dioxide emissions. Without CHP, the GLA maintains its position that the ERF would otherwise be a carbon producer and slow the transition to a low carbon economy as set out in NPS EN-1.	29. The Applicant maintains its position presented in **Paragraphs 4.2.1** to **4.2.3** of **the Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)**. The GLA has not presented any new evidence to counter the reasonable position adopted by the Applicant. The Applicant would also add that it does not intend to discredit Ramboll's report in its entirety. Rather, the Applicant presents evidence to show why the heat demand projections are under represented in the Ramboll report, and why, based on approved methodology informed by relevant legislation and guidance, it can be concluded that there is sufficient heat demand in the region to warrant heat supply from RRRF and REP. The Applicant has set out in detail in **Table C.3** of **Appendix C** of **the Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)** why this is the case. The Applicant has, in the **dDCO (3.1, REP5-003)** submitted at Deadline 5, amended **Requirement 20** (now **Requirement 26**) requiring the undertaker to submit a CHP review to the relevant planning authority 12 months after the date of final commissioning. This requirement sets out what the CHP review must assess and include in each review. A revised CHP review is required to be submitted to the relevant planning authority every four years following the submission of the last CHP review. This Requirement also requires the undertaker to install the necessary pipework to the site boundary once certain details are known and to establish a working group before commissioning can start to agree the scope of each CHP review, engage with the Department for Business, Energy & Industrial Strategy and the Heat Network Investment Programme to identify funding for any financial shortfall identified by any CHP review and to progress the actions in each CHP review and monitor and report on progress to the relevant planning authority. These commitments, in addition to the steps which Applicant has taken to date, maximise the likelihood that the ERF will operate in CHP mode. The Applicant addresses carbon performance in **Section 2.9** of this document, but emphasises that the Applicant's position is that the ERF would contribute to reducing carbon dioxide emissions even if it did not operate in CHP mode.

Item	Applicant's Comment	GLA's Comment	Applicant's Response
4.2.4	"The benefits of connecting both REP and RRRF to a network would offer the optimum case in terms of low carbon heat year round by reducing and/or eliminating the need for conventional back-up boilers, in addition to displacing air quality impacts in close proximity to residential areas".	30. The Applicant states at paragraph 4.2.4 that "The benefits of connecting both REP and RRRF to a network would offer the optimum case in terms of low carbon heat year round by reducing and/or eliminating the need for conventional back-up boilers, in addition to displacing air quality impacts in close proximity to residential areas". It further states at 4.2.5 that "Due to its more efficient nature, carbon performance would increase further if heat were supplied from REP". GLA has already set out the case that the two plants would not eliminate the need for conventional back-up boilers as the Applicant is now suggesting. The Applicant had previously accepted this point, and this is referenced in the GLA's Deadline 4 submission at paragraph 2.14, where the GLA states that this clarification was welcomed.	30. The Applicant had not accepted this point. The GLA had, at **Paragraph 2.14** of its **Deadline 4 Final Report (REP4-024)**, stated that "*The Applicant accepts the GLA's contention that the **two plants would not double heat output***" [emphasis added]. This statement made no reference to whether two plants would **not eliminate the need for conventional back-up boilers**, which the GLA now states is what the Applicant had accepted. As stated in **Paragraph 2.1.30** of **the Applicant's Responses to Written Representations (REP3-022, 8.02.1)**, the degree to which capacity is increased with heat supplied from both facilities "*would be subject to the volume of heat demand connected, the capacity of alternative (non ERF) back-up plant and thermal storage built into the network, and the time of year at which one facility became unavailable.*" Under a configuration where back-up provision is provided by an alternative (non-ERF) plant, the heat export capacity could be doubled. However, if the two facilities were utilised mutually as back-up for each other and the total heat capacity supplied to the network was large (relative to the maximum capacity offered by each facility), then the level of additional heat export capacity which could be offered by each facility would be reduced. The main point to recognise is that, in either case, provision of heat from both RRRF and REP would offer benefit by either or both of the following: • increasing the volume of low carbon and renewable heat which would be supplied to heat consumers and consequently the associated benefits; and • reducing or eliminating the need for conventional back-up boilers, in addition to displacing air quality impacts in close proximity to residential areas. This conclusion is self-evident. Clearly connecting two independent heat sources to a network would result in either (or both) increasing network capacity, and providing back-up support in the event that one of the facilities became unavailable. This back-up heat supply may or may not cover the full heat demand connected to the network, subject to the variables stated in the extract above.
4.2.5	"RRRF would offer carbon savings over the counterfactual cases of new air source heat pump plant or gas-fired CHP led communal heating schemes. Due to its more efficient nature, carbon performance would increase further if heat were supplied from REP".	31. The GLA asserts that in the absence of any calculation using verified data, the Applicant's statement regarding the ERF carbon performance in comparison with RRRF is merely one of conjecture and therefore groundless for informed, evidence-based decisions.	31. The full extract from **Paragraph 4.2.5** of **the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014)**, for context, is as follows: *Ramboll's Phase 2 feasibility study also concludes that a heat network served by RRRF would offer carbon savings over the counterfactual cases of new air source heat pump plant or gas-fired CHP led communal heating schemes. Key finding 5 states "The utilising of heat generated from the Cory plant, at the point of full Core Scheme buildout, could deliver an overall CO2 saving of 3,970 tonnes/annum against a counterfactual case of new Air-Source Heat Pump plant, adhering to projected new London Plan requirements, or 14,900 tonnes/annum against a case of gas-fired CHP led communal heating schemes." Due to its more efficient nature, carbon performance would increase further if heat were supplied from REP.* To further clarify, it is specifically the carbon cost of heat provision which is improved in the case of REP to yield a more efficient process in this context.

Item	Applicant's Comment	GLA's Comment	Applicant's Response
			This is because the proposed REP design allows for heat to be recovered into a district heating network with a lower curtailment of electrical generation capacity (i.e. the Z factor, or Z ratio, of the REP design is improved relative to RRRF). In Table 2 of its report, Ramboll reports a Z factor of 4.3 for RRRF. Per **Paragraphs 7.3.1** and **8.1.1** of the **Combined Heat and Power Assessment (5.4, APP-035)**, the Z factor for REP is 8, meaning that more heat can be recovered for the same volume of lost power generation capacity. This figure is verified with reference to a heat and mass balance of the design and is proven in practice with reference to modern operational ERFs. The primary reason for this improvement in efficiency is extraction of steam from a lower pressure turbine bleed in the case of REP to align with modern district heating best practice to drive down network supply temperatures and consequently reduce heat losses. The argument is sound and is supported by verified design data and industry due diligence. The conclusion therefore stands.
4.2.6	In summary, the GLA therefore appears to be cherry picking elements of Ramboll's feasibility study and contriving arguments, without adequate context, to arrive at a misconceived position.	32. The Applicant's final statement in this section is at paragraph 4.2.6 where it concludes: "In summary, the GLA therefore appears to be cherry picking elements of Ramboll's feasibility study and contriving arguments, without adequate context, to arrive at a misconceived position". 33. The GLA refutes the Applicant's assertion that it is cherry-picking the Ramboll feasibility study to arrive at a misconceived position. The Ramboll study, GLA Deadline 2 – Appendix 1 to Written Representation, is an industry-standard feasibility study that follows a BEIS methodology and uses data and analysis to provide robust evidence-based conclusions and recommendations to inform decisions regarding the further development of the district heating network opportunity. The GLA asserts that the Applicant's responses in 4.2 in the context of heat demand are those of deductions and therefore cannot be relied upon to make a comparable level of informed decisions as those of the Ramboll report.	32-33. The Applicant has set out in detail in its methodology adopted for the purpose of heat demand assessment in **Table C.3** of **Appendix C** of **the Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)**. Assessments are carried out in accordance with applicable Government and Environment Agency guidance and toolsets. Proposals were developed taking account of stakeholder engagement undertaken by the Applicant. This has included discussions with local planning authorities (London Borough of Bexley and Royal Borough of Greenwich), the GLA, housing developers (Peabody and Orbit Homes), and local industry partners. The Applicant is proud to have been a founding member of the Bexley District Heating Partnership Board. These discussions have been used to inform the technical design and commercial parameters for the proposed heat network. The Applicant therefore considers that the proposals are robust and represent a realistic and achievable ambition, notwithstanding third party responsibilities for a scheme of this scale. The level of detail adopted within the basis of proposals is fully aligned with relevant Environment Agency guidance and is appropriate given the development stage of the Proposed Development. The only BEIS projections that are referenced in Ramboll's report are in respect of its counterfactual emissions calculation (section 6.1.1). No description is provided of BEIS methodology adopted elsewhere in the report, and crucially in respect of heat demand assessment. This is contrary to the Applicant's heat demand assessment, which sets out clearly how it is underpinned by, and supports the requirements of, the national, regional and local policy position in relation to the provision and/or opportunity for CHP. The analysis undertaken by the Applicant is comprehensive, detailed and compliant with policy and industry best practice methodology. The conclusions of the analysis indicate that there is sufficient heat demand in the region to warrant heat supply from both REP and RRRF, and that synergy opportunities exist in terms of reliability and displacing fossil fuelled back-up plant, if both facilities were to supply heat to a network. The Applicant maintains its position on the basis that the GLA does not accept key finding 6 on page 5 of the Ramboll study, which states clearly that if more aggressive build-out scenarios are considered, further heat source(s) beyond RRRF are likely to be required. This is an entirely realistic prospect given the under represented heat demand projections reported by Ramboll, and the significant volume of surplus heat demand in the locality which is not accounted

Item	Applicant's Comment	GLA's Comment	Applicant's Response
			for within its core scheme. The Applicant has set out this argument in detail in **Table C.3** of **Appendix C** of **the Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)**.

2.6 Demonstrable Steps

Item	Applicant's Comment	GLA's Comment	Applicant's Response
4.3.4	"It is also promising to note Ramboll's key finding 6 which states "If a more aggressive build- out scenarios were considered for the Core Scheme and additional sites further afield in Bexley and particularly Greenwich, where build- out is closely linked to potential new transport links, further improvement would be seen to the [corrected] network commercial case." This position is in direct conflict with the GLA's assertion that a network served by REP would present a worse economic case compared to RRRF".	34. Section 4.3 of document 8.02.35 addresses 'demonstrable steps'. The GLA rebuts the Applicant's assertion at paragraph 4.3.4 that the GLA is in conflict with the Ramboll report findings. The GLA asserted in the Post Hearing Written Submission of Oral Case Agenda at paragraph 25 that Ramboll reported the financial case for district heating supplied by the RRRF as being commercially marginal. The GLA in the same paragraph asserts that it would be uneconomic to construct a district heating network from the REP to the more distant heat demands identified in the Applicant's Deadline 2 Submission – 5.4.1 Combined Heat and Power Supplementary Report. 35. The Applicant in its submission, 5.1.5, used heat mapping to identify heat demands that could require heat from both the RRRF and REP. The Applicant did not commit to how a district heating network should be taken forward. The GLA Deadline 4 Submission – Deadline 4 Report, 4.19, asserts that the that the engineering of the district heating network should be integrated with both the RRRF and REP plants as heat supply sources. The GLA considers that the Applicant should be required to lead an initiative to form a working group to coordinate the effective development of a district heat network.	34-35. Heat demand served by REP and RRRF would be part of the same network. It is not the case that RRRF would serve some consumers, while REP would serve others, whether they be more distant or otherwise. To this end, Ramboll's key finding 6 supports the Applicant's position that provision of heat from REP (requiring a more aggressive build-out relative to Ramboll's core scheme) would not be materially less attractive than the case for RRRF. Key finding 6 is repeated as follows: "*If a more aggressive build-out scenarios were considered for the Core Scheme and additional sites further afield in Bexley and particularly Greenwich, where build-out is closely linked to potential new transport links, further improvement would be seen to the [corrected] network commercial case.*" The other consideration to note is that due to an improved Z factor in the case of REP (see **Section 2.5** of this document), heat can be exported with a smaller reduction in electrical generation capacity, which has the effect of improving ERF efficiency and the commercial case for heat export. In any event, the key consideration to note is that since the commercial case is marginal, seeking public support via the Heat Network Investment Project (HNIP) mechanism, which is specifically intended to bring forward heat networks by closing the gap required to achieve commercial hurdle rates, is a prudent approach. In response to the GLA's request for the Applicant to lead an initiative to form a working group to coordinate the effective development of a district heating network, the Applicant has, in the **dDCO (3.1, REP5-003)** submitted at Deadline 5, amended **Requirement 20** (now **Requirement 26**) to secure this commitment.
4.3.1-4.37	The Applicant makes various assertions with regard to the steps it has taken, and discussions it has held with GLA and others.	36. With regard to paragraph 4.3.1 of document 8.02.35, the Applicant reiterates the demonstrable steps it has taken to realise the heat export from ERF. The GLA does not refute any of the claims; however, the GLA do not consider that the Applicant has gone far enough with regard to 'demonstrable steps'. 37. With regard to paragraph 4.3.2 and 4.3.6, the Applicant considers that it is in compliance with the new draft London Plan policy SI8 section 9.8.13 regarding commitment to deliver infrastructure and establish a working group; however, the GLA considers that the Applicant's steps do not go far enough. 38. The GLA considers that the Applicant should be required to lead an initiative to form a working group to coordinate the effective development of a district heating network building on the work carried out for the RRRF and to extend this to utilising the heat from the REP by an extended network The working group activities are set out in the GLA's Deadline 4 Submission Final Report 4. Draft Development Consent Order (Rev2) Requirement 20 4.19(4). 39. In relation to paragraph 4.3.3, the GLA continues to refute the Applicant's claims that ERF will provide carbon savings under any operational configuration. Electricity generated at the ERF would be of a higher carbon intensity than the current UK grid average by some margin; as the grid decarbonises, the facility's performance will worsen. 40. At paragraph 4.3.7, the Applicant argues that Peabody's lack of objection to the proposal "can be concluded" that "Peabody is in support of REP". As set out in the GLA's Deadline 4 Submission at paragraph 2.6 and in Appendix 1, the Applicant has wrongly represented Peabody's letter of support as extending their support to REP itself. It is inaccurate to associate a lack of explicit objection to the proposal	36-40. The Applicant welcomes the GLA's recognition of demonstrable steps which the Applicant is taking. Regarding the GLA's request that the Applicant should be required to lead an initiative to form a working group to coordinate the effective development of a district heating network, the Applicant was a founding member of the Bexley District Heating Partnership Board. The Applicant part-funded the Bexley Energy Masterplan Study[1] which preceded the working group and was fundamental to its establishment. The core objective of the working group is to deliver a low carbon heat network principally within the London Borough of Bexley. It is in the Applicant's interest to support this ambition where a commercially viable opportunities exist. The Applicant has committed to equivalent measures through **Requirement 26** of the **dDCO (3.1, REP5-003)** in respect of REP, including a requirement to establish a working group prior to commissioning of Work No 1A. This represents a committed approach relative to comparable projects at the pre-consent stage. To this end, the Applicant has delivered and is continuing to deliver what the GLA is requesting. Carbon performance is discussed in **Section 2.9** of this document. However, the Applicant has previously responded in detail to the GLA's assertion in paragraph 39 that electricity generated at the ERF would have a higher carbon intensity than the grid average. In **Section B.3** of **Appendix B** to the **Applicants response to Greater London Authority Deadline 3 Submission (8.02.35, REP4-014)**, the

[1] https://www.bexley.gov.uk/sites/bexley-cms/files/Bexley-Energy-Masterplan.pdf

Item	Applicant's Comment	GLA's Comment	Applicant's Response
		as support for the proposal. Indeed, the email from Peabody in the GLA's Deadline 4 appendix 1 clearly states "we have not made any statement of support in relation to the REP. It would, therefore, be wrong to claim that we either do or do not support the REP".	Applicant has demonstrated that electricity generated at the ERF would have a lower carbon intensity than the grid average in every year until at least 2050. The Applicant has responded to the further clarification provided by Peabody in **Paragraph 2.2.3** of **the Applicant's Response to the GLA Deadline 4 Submissions (8.02.46, REP5-017)**. The Applicant accepts the clarified position, noting however that the principal points made by the Applicant remain valid. Peabody's letter of support states "*Peabody support Cory's ongoing support and commitment to the collective goal of developing a heat network in Thamesmead and Belvedere to serve the local area which will utilise heat from RRRF and REP*". Peabody has not raised any objections to the Proposed Development.
4.3.8	Performance of data centre heat supply	41. The Applicant disputes at paragraph 4.3.8 the GLA's assertion that import of energy from REP/RRRF to a data centre would represent a very carbon- inefficient use of energy. The Applicant asserts that the conclusions of its Carbon Assessment for REP (document 8.02.08) supports the conclusion that "…energy import to the data centre development would represent a benefit over energy import from grid". 42. This assertion is groundless. The Applicant's Carbon Assessment makes no reference or comparison to the carbon performance of the energy centre serviced with heat and power from the ERF to supply absorption chillers with that of electric compression chillers supplied with grid electricity.	41-42. The Applicant considered the carbon performance of importing energy from REP to the data centre. Total data centre energy demand comprises 16MWe for hosted IT and back-up systems, and 16MWth cooling. The baseline scenario assumes that electricity is imported from National Grid to satisfy electrical demand at a carbon intensity of 0.357 kg CO2/kWh[2] assuming displaced generation from combined cycle gas turbine (CCGT) plant. Cooling would be achieved with electrically driven compression chillers assuming a coefficient of performance of 2.6 per CIBSE Guide F '*Energy Efficiency in Buildings*'. The baseline scenario results in emission of 69,282 tonnes of CO2 per annum. With energy imported from REP, electricity would be supplied directly to the data centre via a private wire connection to satisfy electrical demand. Cooling would be achieved using absorption chillers assuming a coefficient of performance of 0.7 (as per CIBSE Guide F), with provision of low grade heat from REP. Supplying heat and power in this manner would not change the direct carbon emissions from REP but would reduce the power exported to the wider electricity network, so the effective carbon emissions from exporting heat and power are those associated with the alternative power generation (taken as CCGT) which is no longer displaced. At times when REP is unavailable (nominally 760 hours per annum), electricity would be imported from National Grid, and low grade heat would be supplied using natural gas fired back-up boilers (as a conservative assessment). This scenario results in effective emissions of 59,573 tonnes of CO2 per annum, representing a carbon saving of 9,709 tonnes of CO2 per annum relative to the baseline.
4.3.9-4.3.10	Flexibility of electricity generation	43. The GLA contests the Applicant's claim that the ERF has the potential to be a flexible electricity generating plant similar to CCGT and that this would be achieved by varying the waste input to the incinerator. The GLA considers that although technically possible, Energy from Waste facilities do not traditionally operate in this way. This is because operating in this manner would interrupt the facility's primary purpose of processing waste. The impact on the waste streams and how they would be managed when the volumes of waste exceed the capacity of the ERF waste bunkers are not addressed by the Applicant. The GLA's view is that in contrast with genuinely flexible generating plant such as CCGT, the flexibility of the ERF electricity generating capability is constrained by the ability to dispose of the surplus waste elsewhere and in accordance with its Environmental Permit.	43. The Applicant did not claim that the ERF has the potential to be a flexible electricity generating plant similar to CCGT. The Applicant stated that ERFs are entirely dispatchable and it is relatively straightforward to ramp the thermal input of such facilities up and down within the operational envelope, over relatively short timeframes. Operational ERFs operate in this manner to manage waste processing volume in response to waste supply fluctuations. This manner of operation does not interrupt the facility's primary purpose of processing waste. Indeed, there are strong commercial and contractual drivers to ensure waste processing capacity is maintained. As set out in **Paragraph 4.3.9** of **the Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)**, surplus bunker and silo storage facilities are provided for incoming residual waste and for incinerator

[2] BEIS Fuel Mix Disclosure data table dated 01 April 2017 to 31 March 2018
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/737451/fuel-mix-disclosure-data-2018-revised-2.pdf accessed on 16/05/2019

Item	Applicant's Comment	GLA's Comment	Applicant's Response
			bottom ash and residues, which, in combination with the Applicant's control of transfer loading station and lighterage operations, means that the waste management provision offered by REP would be highly flexible. Clearly, this operational flexibility only extends to the extent described, and it is not the Applicant's intention to curtail waste processing volumes. It is however entirely plausible for electrical generating capacity to vary and this occurs routinely in industry. The key conclusion here is that REP would not be a barrier to wider deployment of renewables on the grid. The Applicant would also reiterate that proposals for REP include a large battery storage facility, the primary purpose of which is to facilitate demand shifting through provision of enhanced power supply and demand flexibility. REP would therefore support the deployment of intermittent renewable generation assets more widely on the grid and, with the ability to respond rapidly to grid frequency excursions, add resilience to the grid.

2.7 Carbon Intensity

Item	Applicant's Comment	GLA's Comment	Applicant's Response
4.4.1	The Eunomia report wrongly omits consideration of landfill displacement – it is not just a power station. Applicant refers to Appendix B.	44. The GLA accepts that the facility is not just a power station. However, it is far from clear that waste would be landfilled in the absence of the facility being developed, rather than it being recycled or incinerated somewhere else.	44. See comment under 45 below.
4.4.2	"The GLA suggests that REP would not displace landfill if the government's targets for recycling are met and that therefore this benefit should not be taken into account. This implies that if REP is displacing landfill, then the GLA would agree that the benefit of landfill displacement should be taken into account. The Applicant has explained in Section 2 of this document why REP would divert waste from landfill, even when applying the Government's latest recycling targets, which means that the approach in the carbon assessment is correct".	45. Section 4.4 of document 8.02.35 addresses Carbon Intensity, and the Applicant again makes the point that displacement of landfill should be accounted for. The GLA's position remains that this is a spurious assertion and that the assessment should be based on the assumption that London and surrounding Waste Planning Authorities are successful in increasing recycling performance to the level of targets set in England's Resources and Waste Strategy. Rather than displacing landfill, development of the proposed ERF may displace either other incineration facilities, or indeed recycling activities in the long term.	45. The Applicant has set out its position in **Paragraph B.1.1** of **Appendix B** to **Applicant's response to Greater London Authority Deadline 3 Submission (8.02.35, REP4-014),** that the approach of considering the benefit associated with diversion of waste from landfill is justified in Department for the Environment Farming and Rural Affairs (DEFRA) report titled '*Energy from Waste – A guide to the debate 2014*', paragraphs 35 to 46. The Applicant also notes that this approach was taken in the carbon assessment supporting the application made by Veolia for an ERF at Ratty's Lane in Hoddesdon (ref 7/0067-17) and that the inspector and Secretary of State supported this approach. The Applicant notes that the GLA has not responded to the core point in **Paragraphs 4.4.1** and **4.4.2** of **the Applicant's response to Greater London Authority Deadline 3 Submission (8.02.35, REP4-014)**. The GLA maintains its position that REP would not displace landfill and therefore there is no carbon benefit from displacing landfill. The Applicant rejects this position as the Applicant has demonstrated that there is sufficient residual waste available for REP and therefore REP would displace landfill, as explained in more detail elsewhere. However, the GLA's statements implied that the GLA agrees, in general, that a carbon assessment for an ERF should take account of the benefits of displacing landfill even though the GLA rejects this argument in the specific case of REP because, in the GLA's opinion, REP would not displace landfill. In other words, the Applicant thinks that the GLA agrees with the general approach but would make an exception for REP, whereas the Applicant does not consider that the approach for REP should be any different from the general approach.

2.8 CIF – Efficiency of REP

Item	Applicant's Comment	GLA's Comment	Applicant's Response
5.2.1-5.2.3	"When comparing REP with other ERFs, it is important that the comparison is done on a consistent basis, which the GLA has failed to do". The Applicant states that GLA is comparing net with gross efficiencies, which is misleading"	46. It is not clear what the context of this comment is. The GLA has maintained application of a gross electrical efficiency rate in understanding the ERF's operational specification and has accepted that the 34% gross efficiency rate is the correct rate to use to determine the ERF's performance against the Mayor's carbon intensity floor policy. However, the key point behind this is that the Applicant's gross electrical generation efficiency of 34% is very high – the Applicant has now confirmed that this would make the plant the most efficient in the UK. The Applicant has still not demonstrated how this very high efficiency will be achieved in practice.	46. The context of this comment, as set out in **Paragraph 5.2.2** of **the Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)**, is that the GLA has compared the net efficiency of the Ferrybridge FM2 plant (which it states is 29%, in disagreement with the figure of 29.8% presented in the DCO Carbon Assessment for the plant), with the gross efficiency of the ERF at REP. This is misleading because it suggests that the difference in efficiency between the two facilities is far greater than it would be in actuality. The figure stated by the GLA should be compared with the proposed net efficiency of the ERF at REP, being 31.25%. The improvement in performance proposed at REP, when compared to FM2 on a consistent basis (just over 1%), is entirely plausible when accounting for technological advancements over the period since development consent was granted for FM2 in 2015, and the emphasis the Applicant has placed on procuring a facility with high levels of efficiency. The Applicant has clearly set out how the proposed level of efficiency would be achieved in practice in **Appendix A** of **the Applicant's responses to Written Representations (8.02.14, REP3-022)** and **Section 5.2** of **the Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)**. The Applicant has maintained from the outset of the application that the ERF would be of high efficiency, and has stated since Deadline 3 that it would be the most efficient ERF delivered in the UK to date, see **Paragraphs 2.1.40**, **2.1.74** and **2.1.86** of **the Applicant's Response to Written Representations (8.02.14, REP3-022)**.
5.2.4	Applicant refers to BREF data re efficiencies around Europe	47. Further justification with respect to the high energy generation efficiency is provided by the applicant in paragraphs 1.1.7 and 1.1.8 of document 8.02.14, as follows: 1.1.7 Eunomia is referring to data presented in Figures 3.87, 3.88 and 3.89 of the draft BAT Reference Document. The Applicant agrees that most European energy-from-waste facilities operate in the 24-27% efficiency range. The Applicant does note, however, that 12 plants are reported to operate with a gross electrical efficiency of 30% or more. Six of these operate at 33% or more. These have steam pressure between 60 and 80 bara and steam temperatures between 420 and 520°C. 1.1.8 The Applicant also notes that REP would operate with steam pressure of 75 bara and steam temperature of 440°C. This appears to be consistent with Eunomia's statements that higher steam pressures and/or temperatures are required to achieve higher efficiencies. 48. Whilst higher temperatures and higher steam pressures make it more likely that a higher electrical generation efficiency will be achieved, the data on electrical energy generation efficiency contained within the draft BAT reference document also presents examples of plant with temperature and steam characteristics that are similar to that of the cited characteristics presented by the applicant in respect of the REP, and which have a gross electrical generation efficiency of less than 30%. These characteristics alone are therefore insufficient to guarantee performance at the level indicated by the applicant	47-48. The Applicant agrees that live steam temperatures and pressures are not the only factors which impact plant efficiency. That is why the Applicant has described the other technical provisions within the design which enable the proposed levels of efficiency to be achieved in **Paragraph 1.1.9** of **Appendix A** to **the Applicant's responses to Written Representations (8.02.14, REP3-022)**, and **Paragraph 5.2.5** of **the Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)**. It is this combination of design features which enable the proposed levels of efficiency to be achieved. Conversely, it is a lack of a number of these design features which cause some plants with relatively high live steam temperatures and pressures to achieve gross electrical generation efficiencies of less than 30%. It is also worth highlighting that the data contained within the draft BAT reference document was collected in 2015 and so would not include the newest plants which incorporate further technological advancements. The GLA should be assured that the proposed efficiency is entirely plausible in the context of the technical design which has been verified by Fichtner, the fact that the Applicant is willing to commit capital expenditure in pursuit of industry leading performance, and the track record of the preferred construction contractor, which has consistently delivered the highest performing efficiency ERFs at the time of delivery and guarantees the proposed level of performance.

2.9 CIF – Carbon Performance

Item	Applicant's Comment	GLA's Comment	Applicant's Response
5.3.1	The Applicant has responded to Eunomia's detailed points in Appendix B.	49. The Applicant confirms the need for including the landfill emissions in any carbon assessment. See paragraph 45 for the response on this. 50. The Applicant also reiterates its position that gas CCGT is the marginal energy source with reference to a quote from Defra's document Energy from Waste: A guide to the debate. It remains the case that this document is over five years old, and that the electricity grid has decarbonised significantly since this was written – and will continue to decarbonise further in the future. Projections last year by BEIS confirmed the use of gas will decline significantly over the next 15 years, with renewables expected to overtake gas by 2025 It is therefore already clear that the future marginal power plant is not gas CCGT. 51. Although indicating that it is "relatively straight forward to ramp the thermal input of such facilities up and down within the operational envelope", the applicant agrees with the GLA that ERFs "tend to operate on a continuous basis". These facilities are not power plants – as the applicant itself notes at the start of Appendix B. They will reduce the demand for power, but this is increasingly likely to be from other sources of power generation than gas CCGT. The GLA therefore disagrees with the Applicant's rationale behind the assumption that the marginal source of electricity generation should be gas CCGT for waste to energy plant	49-51. The Applicant confirms that the correct methodology is to include the displacement of landfill in the carbon assessment. The GLA continues to contest the use of combined cycle gas turbine (CCGT) as the marginal source of electricity generation, which it considers to be incorrect. The Applicant has fully responded to this point in **Section B.2** of **Appendix B** to **Applicant's response to Greater London Authority Deadline 3 Submission (8.02.35, REP4-014).** The Applicant's position has been supported by the Secretary of State very recently in its decision on the application made by Veolia for an ERF at Ratty's Lane in Hoddesdon (ref 7/0067-17), issued on 19 July 2019. The Secretary of State states in Paragraph 19 *"For the reasons given in IR17.54-17.64 and IR18.3-18.4, the Secretary of State agrees with the Inspector that there would be a saving in greenhouse gas emissions compared to the status quo."* The Inspector considered the use of gas CCGT as the counterfactual in Paragraph IR17.57. *"As set out above, the figure referred to by the applicant takes account of the 'build margin' or counterfactual referred to by the GIG, namely a Combined Cycle Gas Turbine (CCGT). Herts Without Waste challenged the use of that as an appropriate comparator for electricity generated by the proposed ERF. However, since electricity generated by the ERF would be exported to the grid, I see no reason why, consistent with DEFRA's Guide to the Debate, that energy should not be assumed to substitute electricity that would otherwise have been generated by a CCGT. The same argument was also put to the New Barnfield Inspector who noted that the Guide to the Debate provides specific support for the use of CCGT in making such an assessment. That Guide is still current, with footnote 29 on page 18 confirming that 'A gas fired power station (Combined Cycle Gas Turbine – CCGT) is the current standard comparator as this is the 'marginal' technology if you wanted to build a new power station'. As noted by the New Barnfield Inspector, it is not disputed that the absolute level of climate change benefit will vary over time, as the energy mix changes and decarbonises. However, it is reasonable to make the assessment of benefits using the marginal technology at the present time as the appropriate comparator. In light of the current guidance, I have no reason to take a different view and consider that the appropriate counterfactual has been used by the applicant."* The Applicant notes that Herts without Waste, a rule 6 party to the Inquiry, argued that the BEIS marginal emissions factor should be used (Paragraphs 12.15 to 12.20) and that the Rule 6 party made very similar arguments to those being made by the GLA in this case. The Inspector in the Ratty's Lane case specifically rejected this argument.

2.10 CIF – Calorific Value

Item	Applicant's Comment	GLA's Comment	Applicant's Response
5.4.1-5.4.2	"the GLA continues to dispute the use of net calorific value. The Applicant considers that this is a red herring". "Since the energy content is expressed in net calorific value, the efficiency must also be expressed in net calorific value as otherwise the calculation will not work".	It is noted the Applicant confirms (in para 1.1.15 of document 8.02.14) that no energy recovery will take place from the condensate, indicating the use of the NCV data within the calculation of the electrical energy generation efficiency by the Applicant to be appropriate. As such, the discussion regarding the use of net or gross calorific values in earlier documentation is no longer relevant.	The Applicant welcomes the GLA's agreement on this point.
5.4.3	Demonstrable steps "Paragraph 5.85B of the current London Plan, which is the equivalent of paragraph 9.8.13 in the draft LP, also refers to examples of demonstrable steps, which implies that the specific examples given are not mandatory".	52. Policy 5.17B in the current London Plan and Policy SI8D within the draft London Plan explicitly stipulates the criteria for waste management development proposals, including 'achieving a positive carbon outcome'. In this regard a commitment to source truly residual waste is essential: • Carbon benefits of recycling are typically substantially greater than any benefit which can be attributed to incineration and landfill, in line with the waste hierarchy. • In the event that incineration occurs at the expense of recycling, carbon emissions will be increased, rather than reduced. 53. Likewise, development of a heat distribution network is likely to be essential in achieving a net carbon reduction. 54. The Applicant is correct in stating that the list of 'demonstrable steps' is not mandatory. However, the list comprises examples of the 'demonstrable steps' as minimum requirements for meeting the carbon intensity floor level of 400grams/kwh electricity produced which is a mandatory requirement. The Applicant appears to have missed the point of the GLA's representations which is that any application for new waste capacity should meet the Policy 18 requirement to demonstrate how the development would achieve a 'positive carbon outcome' meeting the CIF, and that the steps presented by the Applicant fail to provide the necessary level of evidence and commitments. The GLA maintains that the Applicant should submit a similar level of detail to that agreed with the GLA for the incinerator developments at Beddington, Sutton and the replacement facility at Edmonton, Enfield (see Deadline 2 GLA WR Paras 3.16-3.18). The demonstrable steps should be stipulated in the DCO Requirement 17 as set out in Deadline 2 GLA LIR Section 10 paras 10.14 – 10.18.	52-54. As set out in **Section 4.2** of the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012),** the Applicant has assessed CIF performance using GLA approved methodology within its Ready Reckoner tools dated October 2011 and November 2018 (both formally published), and two versions submitted to the Applicant in April 2019 (not consulted on or published). The Applicant has been agreeable in complying with the GLA's requests to recalculate carbon performance using these later versions and has demonstrated that REP will comply with the requirements of the CIF in all load cases and using any of the ready reckoner versions issued. Paragraph 9.8.11 of the draft London Plan (July 2018 version and consolidated changes version dated July 2019) reference Ready Reckoner version 2.1 (October 2011) as the tool which should be used in measuring and determining performance against the CIF. This version is therefore the extant version adopted within policy. Using this version of the tool, REP achieves a score of 283 gCO2e/kWh in CHP mode, and 393 gCO2e/kWh in power only mode, as presented in **Table 4.1** of the **Combined Heat and Power Supplementary Report (5.4.1, REP2-012),** therefore complying with the requirements of the CIF. This is important because policy S18 D (3) of the draft London Plan says *"Developments proposals for new waste sites or to increase the capacity of existing sites should be evaluated against the following criteria… (3) achieving a positive carbon outcome (i.e. re-using and recycling high carbon content materials) resulting in significant greenhouse gas savings –all facilities generating energy from waste will need to meet, or demonstrate that steps are in place to meet, a minimum performance of 400g of CO2equivalent per kilowatt hour of electricity produced."* The Applicant has demonstrated that REP will meet the minimum requirement and, therefore, there is no need to include demonstrable steps to achieve it. Notwithstanding this point, the Applicant has provided evidence that it has taken demonstrable steps to improve the carbon outcome of REP, as set out in **Section 4.3** of the **Applicant's response to Greater London Authority Deadline 3 Submission (8.02.35, REP4-014)**. The Applicant agrees with the GLA that REP should process residual waste and has proposed **Requirement 18** of the **dDCO (3.1, Rev 3, REP5-003)** to submit a scheme for approval that sets out the arrangements for maintenance of the waste hierarchy in priority order minimising recyclable and reusable waste received at the ERF. The Applicant also agrees with the GLA that a heat network is desirable, although it is not essential for achieving a net carbon reduction or meeting the minimum CIF performance required by policy. The Applicant notes the GLA's reference to the level of detail agreed for the developments at Beddington and Edmonton. The Applicant responded to these

Item	Applicant's Comment	GLA's Comment	Applicant's Response
			points in **Paragraphs 2.1.24** to **2.1.30** in the **Applicants Response to Written Representations (8.02.14, REP3-022),** demonstrating that all of the technical details requested are included in the development and listed in the Works. The GLA disputed this in its **Deadline 4 Final Report (REP4-024)** and the Applicant responded to this in **Paragraphs 2.4.1** to **2.4.3** of the **Applicants Response to GLA Deadline 4 Submission (8.02.46, REP5-017).**
5.4.4	"The GLA suggests that the savings from landfill displacement are too high, although does not suggest any other figures, and states that "The source of the Applicant's landfill emission factors cannot be verified by the GLA, and the ExA should require further detail to be provided." The Applicant is surprised by this assertion as the source of all assumptions is clearly stated in the Carbon Assessment (8.02.08, REP2-059), mainly in Paragraphs 3.2.2 and 3.2.3, and the source documents were provided as appendices to the Carbon Assessment".	55. The appendices provided to the Carbon Assessment do not confirm the assumptions used by the Applicant in respect of the amount of methane emitted by different types of organic waste. There is discussion in the source document on the rate of degradation of the various materials, but this information is insufficient to understand how much is actually expected to be emitted by each of the different organic waste streams over the period of assessment. The GLA maintains that the Applicant is overstating the carbon saving benefits of the REP	55. The Applicant now understands that the GLA is questioning the quantity of landfill gas which is assumed to be generated. The assumptions for this calculation can be found in **Table 3.2.3** of the **Carbon Assessment (8.02.08, REP2-059).** The Applicant understands that the GLA is questioning the second assumption – "percentage of biogenic carbon which is converted to landfill gas", which is set at 50%. The Applicant accepts that no reference was provided for this figure, although it is commonly used in similar assessments. However, the Applicant did verify this figure with reference to the waste compositions used in the carbon assessment. The calculations can be found in **Appendix A** of this document. This shows that the sequestration rate is 46.10% for RRRF Input and Design Waste and 47.2% for the Reduced Food and Future Waste types and, hence, the assumption of a 50% sequestration rate was conservative. Therefore, the Applicant considers that it may have understated the carbon saving benefits of REP.

2.11 Air Quality – Selection and assessment of sensitive receptors

Item	Applicant's Comment	GLA's Comment	Applicant's Response
6.2.1	"The Applicant disagrees with the GLAs assertion that a full assessment of the impacts of emissions has not been undertaken predicted concentrations are shown geographically and therefore the number of properties affected can be judged by the information provided with the application".	56. Section 6.2 of document 8.02.35 addresses air quality and the selection and assessment of sensitive receptors. 57. The GLA has taken the isopleth maps referred to in paragraph 6.2.1 into account in forming the professional judgement that the impact of the scheme is both significant and unacceptable. 58. By contrast, the Applicant has not taken the maps into account; for instance, at Table 7.37: Summary of Residual Effects in ES Chapter 7 (document 6.1), the Applicant states that "Effects will not be significant based on maximum ground level concentrations and concentrations at sensitive receptor locations". 59. Nowhere within the Applicant's documents does it attempt to quantify the full number of people whose health would be affected by the development, or even the number of homes affected by the development, referring instead to a subset of indicative receptors. Simply providing maps is not in itself an assessment. 60. While the assessment of significance is a matter of professional judgement it is clearly not right to base it solely on numbers of selected receptors exposed to different scales of impact. This is because the selected receptors only represent an indicative sub-set of all the people affected and therefore underrepresent the true predicted impact. By omitting any commentary on or interpretation of the isopleth maps the applicant has therefore failed to consider the full impact of the scheme. 61. In REP3-022 the Applicant states at para 2.1.184 that they have followed the criteria set out in the Institute of Air Quality Management's guidance in assessing significance, however the IAQM guidance does not set hard criteria for assessing significance, stating: "7.4 The assessment framework for describing impacts can be used as a starting point to make a judgement on significance of effect, but there will be other influences that might need to be accounted for. The impact descriptors set out in Table 6 3 are not, of themselves, a clear and unambiguous guide to reaching a conclusion on significance. These impact descriptors are intended for application at a series of individual receptors. Whilst it may be that there are 'slight', 'moderate' or 'substantial' impacts at one or more receptors, the overall effect may not necessarily be judged as being significant in some circumstances." 62. Furthermore, the IAQM guidance anticipates that there may be differences in judgement of the significance of air quality impacts between applicants and planning authorities, stating: "7. 2 The significance of effect that any proposed development might have will also be judged at two separate stages of the development control process, as follows: • the first is within the air quality report accompanying the planning application; while • the second is when the local authority's air quality specialist makes his/her recommendations to the planning officer. 7.3 These are mutually exclusive requirements serving different purposes. Ultimately, any disputes on these matters are dealt with by the judgement of the planning committee and/or a planning inspector following a planning appeal.".	56-62. Responses to comments on Air Quality from the GLA, as well as other interested parties, are contained in a single submission document, the **Applicant's response to Air Quality Matters (8.02.70)** submitted at Deadline 7.

2.12 Air Quality – Environment Permit Emissions Limits

Item	Applicant's Comment	GLA's Comment	Applicant's Response
6.3.1-6.3.4	The Applicant disagrees with the GLA's assertion that it is not clear what emission limit would be applied by the EA through the permit regarding NOx emissions. In determining the EP application, the EA will judge whether or not the emissions correspond to BAT as defined in relevant BAT Reference Documents (BREF). "As a regulator, the Environment Agency is charged with reducing the environmental impact of the industry that it regulates. It would therefore be perverse for the Environment Agency to grant an operator a higher emission limit than they have applied for, and higher than the operator has committed to meeting. This would mean that the Environment Agency would be allowing a higher level of environmental impact than would otherwise occur".	63. Section 6.3 of document 8.02.35 addresses emissions limits. Paragraphs 6.3.1 – 6.3.4 sets out the Applicant's disagreement with the GLA's assertion that it is not clear what emission limit would be applied by the Environment Agency (EA) through the permit regarding NOx emissions. 64. The Applicant has missed the point here. Neither the Applicant nor the GLA can pre-judge the outcome of a permit decision, nor should they seek to do so. 65. The Applicant has relied on its assertion that the EA will set a permit emission limit beyond normal BAT to say that their plant will perform better in practice than assumed in the DCO application. This is then used to make the case that there should be no constraints on the size, throughput or emissions from the plant imposed by the DCO. 66. The Applicant has produced no confirmation or evidence from the EA as to what emissions limits will be imposed by the permit, if granted. In the absence of such information it is entirely reasonable for the GLA to challenge the assumption that emissions will be required to be below those that form the basis of the DCO application, and it would be inappropriate to do otherwise. 67. Finally, the GLA does not agree with the Applicant's statement at paragraph 6.3.4 that there would be no significant effects from the development.	63-67. The Applicant maintains its position that the emission limit in the Environmental Permit, when granted, will be no higher than the emission limit applied for. Emission limits relating to NOx emission from both the Anaerobic Digestion and ERF element of REP are secured through **Requirements 16** and **17** of the **dDCO** submitted at Deadline 5 **(3.1, REP5-003)** Responses to comments on Air Quality from the GLA, as well as other interested parties, are contained in a single submission document, **Applicant's response to Air Quality Matters (8.02.70)** , submitted at Deadline 7.

2.13 Opportunity area, residential development and air quality

Item	Applicant's Comment	GLA's Comment	Applicant's Response
6.5.1-6.5.5	The GLA incorrectly states in paragraph 58 of its Post Hearing Written Submission of Oral Case that residential development is primarily located to the south of the A13 in Havering. The Applicant refers to further information provided in response to LB Havering.	68. Section 6.5 concerns the proposed residential development, specifically the Opportunity area proposals, in the context of air quality. 69. The Applicant is correct, as noted at paragraph 6.5.2, that residential development in Havering is primarily located to the north of the A13, which is the location for a number of new developments, including Beam Park. Notwithstanding this, the GLA maintain, based on the Applicant's isopleth modelling, that there will be an adverse impact on the area to the north of the A13 in Havering. 70. In paragraph 6.5.3 the Applicant cross refers to Table 7.21 of the ES (document 6.1) to assert that a large change in Arsenic concentration, with minor adverse impact should be considered "negligible" as it is at least partially impacting on a Strategic Industrial Land (SIL) rather than a residential area. 71. This is incorrect for two reasons: • The terms "negligible" and "minor adverse" are defined numerically in the table and are not identical, so a "minor adverse" impact is just that. • The table does not distinguish between location types in assigning descriptions to levels of impact, and neither does the IAQM guidance from which the table is drawn. 72. It is also the case that people working within the SIL would be exposed to the increased levels of Arsenic, with consequences for their health. 73. In paragraph 6.5.4 the Applicant acknowledges the large change in Nickel concentrations at existing and proposed homes; this is a level of impact that the GLA considers significant as discussed in earlier submissions. 74. Similarly, in paragraph 6.5.5, the Applicant relies on the absence of residential properties to justify widespread increase in pollutant concentrations. There is simply no justification for ignoring workplaces or those who work in them, indeed the UK Government guidance on air pollution and planning specifically includes workplaces when discussing when air quality is relevant to planning decisions6. Similarly, at paragraph 170 the NPPF does not distinguish between workplaces and other use types: "[Planning decisions should prevent] new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution (our emphasis)	68-74. Responses to comments on Air Quality from the GLA, as well as other interested parties, are contained in a single submission document, **Applicant's response to Air Quality Matters (8.02.70),** submitted at Deadline 7.
6.5.7.-6.5.23	GLA response contains a number of other potential locations for high density development and tall buildings (in red). These areas are well outside of areas where concentrations at higher levels will be potentially significant. Nevertheless the Applicant has undertaken additional modelling, presented in Table 6.1.	75. Noting GLA concern with the impact upon opportunity areas, additional modelling has been undertaken by the Applicant, and this is presented at Table 6.1 of document 8.02.35. However the findings are unclear as the referred to figure showing the receptor locations has been omitted from the document. Without this figure no comment can be made on whether the results are correctly positioned. 76. Nevertheless, the presented results show that the impact on high rise buildings in the selected locations will be greater on higher floors, in some cases substantially so. It also appears that some receptors, which had not previously been explicitly modelled, would be subject to large or very large impacts from metals (e.g. R1 and R6). 77. In conclusion the applicant has shown that there are potentially higher impacts on tall buildings within the opportunity area. These impacts are inherent to the REP as designed as they relate to the distance of the receptor to the centre line of the pollutant plume.	75-77. Responses to comments on Air Quality from the GLA, as well as other interested parties, are contained in a single submission document, **Applicant's response to Air Quality Matters (8.02.70),** submitted at Deadline 7.

2.14 Transport

Item	Applicant's Comment	GLA's Comment	Applicant's Response
7.1.1-7.1.7	Requirement 14 - The level of the cap (90 HCVs two-way for ERF and AD, and 300 under jetty outage conditions) is appropriate and has been assessed in the 100% by road and 25% by road scenarios for ERF waste material movement and the 100% by road Anaerobic Digestion facility waste material movement. At Deadline 3 the Applicant has submitted evidence, (doc 8.02.31), which analyses the likely effects of the cumulative full capacity operation of RRRF and REP under a possible jetty outage scenario. That evidence shows that the cumulative effects are not judged to change the assessment of effects on the transport network for the criteria as assessed for the 100% by road reasonable worst case scenario are Not Significant. No further assessments are required or proposed.	78. Section 7 addresses transport issues. Contrary to the statement by the Applicant at paragraph 7.1.6, the technical note on jetty outages, submitted at Deadline 3 by the Applicant (doc 8.02.31), does not present an assessment of the cumulative effects of the REP and RRRF at 100% by road for a 'jetty outage' scenario. The RRRF movements added to the '2028 Do Something Scenario' are for normal operation and not the 100% by road permitted under jetty outage condition. The criteria for the worst case 'jetty outage scenario' are 100% by road for the REP and the same for the RRRF. A further assessment is therefore necessary to ascertain the impacts. 79. It should be noted that, as set out at the GLA's Post Hearing Oral Written Submission, the GLA does not agree with the Applicant that a cap of 90 HCVs per day is sufficient as this would allow the REP to bring in well above a 25% of its waste in the nominal scenario by road. As set out in paragraph 3.4 of the GLA's Further Representations submitted at Deadline 4, the GLA and TfL consider that the cap on two-way vehicle movements should be set at 32 two-way vehicle movements, which is equivalent to approximately 10% of waste being brought in by road. This point is also discussed at paragraphs 12 - 14 of the GLA's Deadline 5 submission document titled 'GLA comments on Applicant's response to LBB at Deadline 4'.	78. The GLA misunderstands the assessment conducted within the **Temporary Jetty Outage Review** (Simultaneous Operations – Riverside Resource Recovery Facility and Riverside Energy Park) (**8.02.31, REP3-036**) and is therefore incorrect. For RRRF, the correct operational vehicle movements in a jetty outage scenario are capped by Condition 27 of application reference 16/02167/FUL, amounting to 30 Heavy Commercial Vehicles (HCVs) (30 in and 30 out) per peak period, or 300 HCVs per day (300 in and 300 out). An assessment of the impacts on the road network of REP and RRRF operating under a jetty outage scenario has not been undertaken as this is not a reasonable worst case scenario. A jetty outage has never occurred in the 8 years of operation of RRRF and is therefore an extremely unlikely event. Nevertheless, the sensitivity analysis undertaken to understand the theoretical additional traffic that could be accommodated within the local road network is provided for by the analysis conducted in **Section 4** of the **Temporary Jetty Outage Review** (**8.02.31, REP3-036**) and with representative capacity data contained with Appendix B of that document. Appendix B of that document was prepared previously for TfL for the purposes of understanding the quantum of traffic that could be added to the local road network whilst continuing to stay within theoretical capacity. That sensitivity analysis was not a direct assessment of a simultaneous jetty outage scenario but demonstrates that the network would continue to operate within theoretical capacity in excess of the quantum of additional traffic movements which might be generated by a simultaneous jetty outage scenario. **Paragraph 4.5** of the **Temporary Jetty Outage Review** (**8.02.31, REP3-036**) notes that supplementary analysis has been carried out, which identifies that the three junctions on Picardy Manorway would operate within capacity even when flows are far in excess of the peak construction period traffic flows, which themselves are far in excess of the movements generated during a combined jetty outage scenario. The Applicant therefore reasserts that a jetty outage scenario is not a reasonable worst case scenario but the cumulative assessment of REP and RRRF at their respectively capped number of HCVs by road under a jetty outage scenario would not result in effects greater than those identified in the reasonable worst case scenario (100% by road) in **Chapter 6 Transport** of the **ES (6.1, REP2-017).** The resultant impacts would continue to be judged as Not Significant and no further assessment is necessary. 79. The Transport Assessment within **Chapter 6 Transport** of the **ES (6.1, REP2-017).** demonstrated, when considering the 100% by road scenario that there were no significant effects during the operational phase of REP. It should also be noted that TFL confirmed in its Relevant Representation (see **RR-087**) and at two meetings (9th October 2018 and 31st May 2019) that they had no objection relating to the operational phase of the development. There is no policy or evidence based justification for a cap relating to material transported by road to REP. However, to respond to stakeholders' concerns a tonnage and vehicle movement restriction (**Requirement 14** within the **dDCO** (**3.1, Rev 3, REP5-003**) has been included.

Item	Applicant's Comment	GLA's Comment	Applicant's Response
7.1.8	The London Plan aspiration is to reduce the dominance of vehicles and not the weight of freight transported. On that basis there is no policy justification for the GLA requiring a cap on the tonnage of material transported by road to REP and the cap on the number of HCVs per day proposed by the Applicant is appropriate and in line with policy.	80. The Applicant states at paragraph 7.1.8 of document 8.02.35 that The London Plan aspiration is to reduce the dominance of vehicles and not the weight of freight transported. TfL agrees that the draft London Plan does not restrict the weight of freight. However, in the case of the REP, the weight of freight transported correlates directly to the size of the vehicle used to transport waste. Ninety 7.5 tonne vehicles transporting waste would certainly add less to motorised vehicle dominance on London Roads than 90 20 tonne HGVs would do by virtue of the difference in size. Furthermore, if the Applicant were to use 90 20-tonne vehicles to transport waste to the REP then the facility would be unlikely to bring in less than 25% of its waste by road, contrary to the cap. Taking account of the size of vehicles means that in effect the REP and RRRF would operate equally in line with London Plan policies 5.17, 6.14, 6.26 and draft London Plan policies T2 and T7, addressing any potential disparities in compliance with those policies. It should be noted that TfL have not agreed to a 90-vehicle cap at any point, rather would instead seek a lower cap in line with the comments made by LBB.	80. As outlined above, there is no policy or evidence based justification requiring a cap on the tonnage of material transported by road to REP and the cap on the number of HCVs per day proposed by the Applicant is appropriate and is therefore in line with London Plan and local policy. There is also no evidence to support that a vehicle carrying a 20t payload (with a possible 32t Gross Vehicle Weight) has any more dominance or safety concerns on the road network than one carrying a 7t load (with a possible 18t Gross Vehicle Weight). A report prepared by WSP for TfL titled "*Investigating the Construction Industry's Use of HGV Types*" supports this conclusion at paragraphs 2.5.12 to 2.5.15. The REP EIA included a '100% by road' scenario which assumed daily vehicle movements of c. 343 HCVs in and 343 HCVs out, as set out at **Plate 6.1** and **Plate 6.3** of **Chapter 6 Transport** of the **ES (6.1, REP2-018)**. **Requirement 14** of the **dDCO** (**3.1, REP5-003**) restricts the Applicant to 90 HCVs in, 90 HCVs out per day (save in the event of a jetty outage – when HCVs carrying waste are restricted to 300 HCVs in and 300 HCVs out per day). In this respect the Secretary of State can be satisfied that there is no waste throughput level at which the environmental effects of road transport reported in the ES could be breached. For the reasons set out above, the Applicant disagrees with the GLA's conclusion that a waste throughput tonnage cap by road is necessary or a lower cap than the 90 HCVs in and 90 HCVs out delivering waste material to REP, as secured by **Requirement 14** of the **dDCO (3.1, REP5-003)**, is required. The Applicant has previously responded to the GLA's original request for a cap on tonnage by road by including at Requirement 14(2) a cap on waste being delivered to site by road of 240,000 tpa.
7.1.10-7.1.11	The GLA's Post Hearing Written Submission of Oral Case raises concerns that the Applicant would seek to use a fleet of "many small vehicles which would not be subject to the proposed cap" to transport waste to REP. The Applicant sets out to undermine this statement.	81. TfL accepts the Applicant's view, expressed at paragraphs 7.1.10 – 7.1.11, that the use of small vehicles would be impractical and is unlikely to be used in large numbers for their operations. Notwithstanding this, it is necessary to include small vehicles in the cap for HCVs to ensure that the vehicle movements do not exceed the level assessed in the TA.	81. As stated above the REP EIA included a '100% by road' scenario which assumed daily vehicle movements of c. 343 HCVs in and 343 HCVs out, as set out at **Plate 6.1** and **Plate 6.3** of **Chapter 6 Transport** of the **ES (6.1, REP2-018)**. **Requirement 14** of the **dDCO** (**3.1, REP5-003**) restricts the Applicant to 90 HCVs in, 90 HCVs out per day (save in the event of a jetty outage – when HCVs carrying waste are restricted to 300 HCVs in and 300 HCVs out per day). In this respect the Secretary of State can be satisfied that there is no waste throughput level at which the environmental effects of road transport reported in the ES could be breached. A vehicle carrying 7t payload would be classified as an HCV and so would be included within the daily vehicle cap.

2.15 Electrical Connections and Requirement 13 CTMP

Item	Applicant's Comment	GLA's Comment	Applicant's Response
7.3.1-7.3.5	The Applicant agrees with the anticipated points of interface between the Electrical Connection and local bus services within LBB, as set out at Appendix 4, Figure 3 of the GLA's Post Hearing Written Submission of Oral Case. The Applicant is also collaborating with and discussing with LBB, TfL and Arriva London buses the engineering challenges which have informed the selection of the route – such as underground structures and existing Statutory Undertakers' equipment. Those challenges will influence the alignment of the Electrical Connection, within the order limits, The emerging detail and methodology will be captured within an update to the Outline CTMP (doc 6.3) and submitted to the ExA in due course.	82. Section 7.3 of document 8.02.35 addresses traffic issues relating to the Electrical Connection. TfL awaits the submission of the updated Outline CTMP to the ExA before making further comment but reiterates that additional buses and diversions are likely to be required during the construction of the Electrical Connection to counteract delays due road/ lane closures. It is reasonable to seek a financial contribution from the Applicant to minimise the impact on bus services during the construction period, as the impacts will be a direct result of the proposed development. 83. This is an established practice and recent precedents include Brent Cross where TfL secured contributions through the s.106 agreement to pay for necessary measures to address disruptions to bus operations during the construction phase. TfL stands by its request at paragraph 2.104 of the GLA deadline 4 submission.	82-83. An updated **Outline CTMP** was submitted at Deadline 5 **(6.3, Appendix L to B.1, REP5-008)**. This document confirms the Applicant's anticipation that UKPN would be responsible for the construction of the Electrical Connection as statutory undertaker. UKPN would manage complaints specific to works on the Public Highway. **Section 6.2** of the updated **Outline CTMP** submitted at Deadline 5 (**6.3, Appendix L to B.1, REP5-008**) provides a structure of a method for exploring opportunities to manage the processes and minimise effects on local bus services during the construction of the Electrical Connection. It is acknowledged that some temporary lane closures will be unavoidable, however UKPN would consult bus operators using standard notification procedures, and through direct contact where there will be an interface with infrastructure and services. Details to be provided would include the alignment of the cable trench, phasing constraints and opportunities, temporary traffic management measures, the extent of works and interfaces with bus stops and shelters. The Applicant and UKPN will continue to review opportunities to manage construction works in areas of most interest to TfL and Arriva London, seeking to limit and minimise disruption. The Applicant has committed to the use of carriageways with least traffic disruption where practicable and to seek opportunities to use areas outside of the carriageway if appropriate and feasible. At **Paragraph 6.2.10**, the updated **Outline CTMP** (**6.3, Appendix L to B.1, REP5-008**) provides a structure for progressing discussions with TfL and bus operators to prepare finalised CTMPs to inform management of construction works and the interface with bus services. The Applicant considers that through the updated **Outline CTMP** (**6.3, Appendix L to B.1, REP5-008**) reasonable, appropriate and sufficient evidence has been provided to demonstrate that reasonable and practicable measures are secured to minimise disruption to the local bus network and infrastructure. It is therefore considered not necessary or reasonable for the Respondent to seek financial contributions from the Applicant. The Applicant has engaged with TfL since 2017 through a number of meetings and correspondence against a background of transport assessment scoping in May 2018 and the Preliminary Environmental Information Report in June 2018. During that time the Applicant has duly responded to matters raised by TfL to a point where an acceptable strategy was understood to be derived – through the culmination of supplementary evidence into the likely effects during construction on traffic as explored in technical notes subsequently provided at **Appendices F and G** of the "**Applicant's Responses to Relevant Representations**" **(8.02.03, REP2-054)**. Since that time, during the Examination, the GLA / TfL has sought to expand the focus of the review of effects to include sections of the road network further to the south of James Watt Way – which was the prior extent of TfL's focus. The Applicant has continued to seek to respond to points raised and will continue so to do within reason and proportionate to the likely effects. The construction of the Electrical Connection is a strategically important utility connection to be implemented by UKPN who is a statutory undertaker. Those works are no different to the installation of other strategic utility connections which could be delivered by statutory undertakers under their existing powers, which TfL would need to manage on a regular occurrence across London. In addition, there is no legal obligation on the Applicant to provide compensation for temporary delays as a result of works to construct the electrical connection. There is no entitlement to compensation if a business, including bus services, is affected by road works undertaken by statutory undertakers or the highway authority. This is further provided in **Section 5.11** of the **Applicant's Response to Relevant Representations (8.02.03, REP2-054).**

2.16 Low Emissions Restrictions

Item	Applicant's Comment	GLA's Comment	Applicant's Response
7.4.1-7.4.3	GLA request for "all vehicles to comply with Euro VI emissions standards" - Due to the specialist nature of much of the construction works at REP, the Applicant cannot commit to an absolute restriction on engine standards as this could cause insurmountable contracting problems where specialist contractors have to be employed who are operating vehicles with Heavy Duty engines not compliant with Euro VI standards. The Applicant is not responsible for the management of engines within the vehicle fleets of third parties. The operator would ensure its vehicles meet the prevailing emissions zone standards in order to avoid being fined.	84. Section 7.4 addresses low emissions restrictions. While the Applicant is not directly responsible for the management of engines within the vehicle fleets of third parties, the Applicant could adopt company policies to only work with suppliers that comply with certain engine standards and secure this in contracts with these suppliers. In the event that specialist vehicles could not comply with this standard then approval could be sought in respect of that type of vehicle only supported by a clear justification – as opposed to there being a blanket option to use vehicles which do not meet Euro VI standard. 85. The prevailing emissions zone standard is currently Euro IV and will increase to Euro VI in 2020, however operators may choose to pay the charge instead of replacing their vehicles. By way of comparison it should be noted that TfL already requires its entire bus fleet, which is operated by third party contractors, to be Euro VI or better. The London Environment Strategy already requires that all new local authority waste contracts specify Euro VI or better vehicles be used to comply with the Ultra Low Emissions Zone and this is already being put in place in waste tenders.	84-85. The Applicant has committed to meet the prevailing emissions standards for its own vehicles and will encourage other companies to do the same, where appropriate. The Applicant does not propose to introduce contractual requirements for third party fleet operators to meet the prevailing emission standards and would not influence their decision whether to meet those standards or pay the required fees. The appropriate regime for the control of emissions standards is that provided by the relevant policy and there is no requirement for development specific restrictions.

2.17 DCO Schedule 2 – Proposed New Requirements

Item	Applicant's Comment	GLA's Comment	Applicant's Response
8.1.1 – 8.1.2	The GLA has requested a requirement that requires the Applicant to provide the AD facility (Work 1B), battery storage (Work 1D) and solar panels (Work 1C) within a specified time frame. Similarly a requirement is requested that compels the Applicant to deliver Work 3 (works required to export heat from the REP site). 8.1.2 The Applicant is in the process of considering these proposals and will clarify its position later in the examination.	86. With regard to the DCO Schedule 2, the Applicant notes at paragraphs 8.1.1-8.1.2 of document 8.02.35 that the GLA has requested a requirement that requires the Applicant to provide the AD facility (Work 1B), battery storage (Work 1D) and solar panels (Work 1C) within a specified time frame. Similarly, a requirement is requested that compels the Applicant to deliver Work 3 (works required to export heat from the REP site). 87. The GLA notes that Applicant is in the process of considering these proposals and will clarify its position later in the examination. As set out in previous submissions including the LIR, the GLA would welcome a suitable requirement to ensure timely delivery of the works mentioned above.	86-87. The Applicant has included a requirement (**Requirement 25**) into the **dDCO (3.1, Rev 3, REP5-003)** at Deadline 5, that requires the Applicant to set out the phasing of the construction and commissioning of Work Number 1 and that Work Number 1B (Anaerobic Digestion facility) must commence construction in the same phase as Work Number 1A (ERF). The Applicant will be procuring the ERF on the basis, of including all heat recovery infrastructure from the outset of operations, including a compatible and optimised turbine for CHP operation and steam headers to facilitate recovery of heat at the required conditions and in a resilient manner, and a control system which enables CHP operation to be delivered. These elements all form part of Work Number 1A. Regarding Work Number 3, the Applicant cannot include these elements in the phasing programme since certain elements of the heat export system (Work No 3), including the heat exchangers, circulating pumps and associated pipework, are subject to heat network design and third party agreement. Compatibility between the heat export system and consumer demand is crucial to ensure that the district heating network is capable of operating in a sound and efficient manner. A relative level of certainty is required before final detailed design and procurement of this equipment is undertaken. However, the Applicant will insert Work Number 3 into **Requirement 26(3)** of the **dDCO (3.1, Rev 3, REP5-003)** alongside Work Number 6, which is already referenced. In addition, the Applicant will amend **Requirement 2** of the **dDCO** (at the next iteration to be submitted at Deadline 8) to require the Applicant to submit to LBB, along with the detailed design, a specification setting out the proposed detailed arrangement and sizing of the heat export system within Work Number 1A (as far as is practical given progress on heat export stakeholder engagement).

2.18 DCO Schedule 2 – Requirement 14

Item	Applicant's Comment	GLA's Comment	Applicant's Response
8.1.8. – 8.1.10	Applicant refers to its response in Section 7.1 (see above) – no change proposed to number of HCVs	88. With regard to draft requirement 14, the Applicant refers to the GLA's request that the restriction on the number of HCVs per day attending REP should include those vehicles associated with the ancillary operations, such as: lime; fuel oil; and ammonia deliveries. The Applicant's response is to not accept this proposal. 89. If the number of HCV movements are related to ancillary operations at the REP then the allowance of 90 HCVs per day is even more lenient than previously assessed by the GLA. Based on Figure 5.1 of the TA, the ERF's 100% by road demand for vehicle movements excluding those related to ancillary operations would be 315 per day based on the maximum waste throughput of 805,920tpa. This means that for the nominal scenario of 655,000tpa, the ERF would require 256 daily vehicle movements. A cap of 90 vehicles per day would therefore translate to approximately 35% of waste being delivered by road, well above the 25% achieved by the RRRF and even further above the cap proposed by the GLA and LBB. 90. In addition, the GLA would request that the ExA to consider how, practically, the vehicles bringing in waste and those associated with 'ancillary operations' would be differentiated by the Applicant so as to ensure the cap on the former proposed by the Applicant is not exceeded. It is the GLA's opinion that a cap that covers all vehicles would make recording vehicle movements much more practical and make the cap more easily enforceable by the LPA	88-90. The cap of 90 HCVs also includes the AD facility materials transportation, in addition to the ERF. As shown in **Figure 5.3** of the **Transport Assessment (6.3, APP-066)**, this equates to approximately 17 HCVs at peak load, leaving 73 HCVs for the ERF. Ancillary movements associated with the operation of the ERF and the Anaerobic Digestion facility are estimated to be in the region of 11 vehicles per facility (22 movements in and 22 movements out) per day. This level of daily vehicle flow is estimated to be within the daily variation of flow within the local road network. The cumulative impact (when added to the proposed maximum jetty outage cap of 300 HCVs in and 300 HCVs out per day) would be within the reasonable worst case scenario (100% by road) as assessed within **Chapter 6 - Transport** of the **ES (6.1, REP2-017)** and **Appendix B.1, the Transport Assessment** to the **ES (6.3, APP-066)** i.e. 343 HCVs in and 343 HCVs out per day.
8.1.14 – 8.1.15	Applicant refers to its response in Section 7.1 (see above) – no change proposed with regard to jetty outages	91. The Applicant refers at paragraphs 8.1.14 – 8.1.15 to its response in Section 7.1 (see above), in which no change is proposed to Requirement 14 with regard to jetty outages. Please refer to paragraphs 78-79 above for GLA response.	91. The Applicant reiterates its point that it cannot accept a cap on the number of days that a jetty outage may occur. This is an emergency situation which the Applicant may have no control over and if triggered the Applicant would have to continue to provide a waste management service to the public sector and private customers. It is not in the Applicant's interest for a jetty outage to occur. It would present a logistical challenge for the Applicant to manage, particularly for an extended period of time and therefore the Applicant will try to rectify the situation as soon as possible. Furthermore, the GLA refers to the existing RRRF planning permission as precedent for some of its arguments. However, for good reasons, there is no cap on the number of days a jetty outage can last on the RRRF planning permission (which is correct given the emergency context).

2.19 DCO Schedule 2 – Requirement 18

Item	Applicant's Comment	GLA's Comment	Applicant's Response
8.1.16 – 8.1.17	"There is no planning policy requirement for the Applicant to guarantee the London Living Wage in respect of the Proposed Development. In any event, the vast majority of the jobs at the Proposed Development will be highly skilled jobs, at degree level or above and therefore anticipated to be paid above the London Living Wage Therefore, the Applicant does not accept this suggested commitment".	92. With regards to the GLA's request for a commitment to the London Living wage, the Applicant rejects this and states that "*There is no planning policy requirement for the Applicant to guarantee the London Living Wage in respect of the Proposed Development. In any event, the vast majority of the jobs at the Proposed Development will be highly skilled jobs, at degree level or above and therefore anticipated to be paid above the London Living Wage".* 93. The assertion that staff will be educated 'at degree level or above' is not evidenced, and this is unlikely to be the case for many operational personnel. Moreover, if the Applicant is confident in making this statement, a commitment to paying the London Living Wage would not result in any additional financial burden – on this basis the reluctance of the Applicant to make this commitment is difficult to understand.	92-93. The Applicant reiterates that there is no policy requirement for such a commitment to be imposed. Whilst the Applicant maintains that many of those employed on the site will be highly skilled jobs above the London Living Wage, there is no justification for the scheme to be subject to a requirement that is not required by planning policy.

2.20 DCO Schedule 2 – Requirement 20

Item	Applicant's Comment	GLA's Comment	Applicant's Response
8.1.18 – 8.1.23	Various detailed comments on the proposed wording of Condition 20 in response to GLA submissions	94. With regard to Requirement 20, the Applicant provides a number of detailed responses at paragraphs 8.1.8 – 8.1.23. 95. The GLA would expect the Applicant to take a leading role in working with local partners to help establish the district heating network as have other ERF projects in London. The GLA in its Deadline 4 submission at paragraph 4.19 sets out the role for the Applicant to lead a working group that includes RRRF representatives and reiterates this point. 96. The applicant resists the GLA request for amended wording at paragraph 8.1.19. The GLA would propose to replace the Applicant's text in document 3.1 Rev 2, June 2019, 20(2)(a), "assess potential commercial opportunities that reasonably exist for the export of heat…" with "assess potential viable opportunities that reasonably exist within a 10 km radius for the export of heat…". 97. GLA notes the amendment to draft DCO document 3.1 Rev 2, June 2019 20(2)(b) regarding the details that trigger the installation of CHP pipework, as set out at paragraph 8.1.20. 98. The Applicant rebuts the GLA request for amended wording at paragraph 8.1.19. The GLA would propose to replace the Applicant's text in document 3.1 Rev 2, June 2019, 20(2)(a), "assess potential commercial opportunities that reasonably exist for the export of heat…" with "assess potential viable opportunities that reasonably exist within a 10 km radius for the export of heat…". 99. GLA notes the amendment to draft DCO document 3.1 Rev 2, June 2019 20(2)(b) regarding the details that trigger the installation of CHP pipework, as set out at paragraph 8.1.20. 100. The Applicant rejects the GLA's requirement for the CHP review, as set out at paragraph 8.1.22a, to take place every two years and instead proposes to consider the Eggborough Gas Fired Generation Stated Order 2018 that required a review on a 4 year basis. The Eggborough plant is located in a rural area with limited, and probably static, heat supply opportunities. The nearest major city is Leeds, which is the UK's third largest city and is approximately 30 km away. Although the city has a target to build 70,000 new homes by 2028, its distance from the Eggborough plant means it is unlikely to be economic to supply heat from the plant to Leeds. It is therefore unreasonable to compare the Eggborough plant and its circumstances, with that of the REP that is embedded within Bexley and very close to adjacent boroughs. The Mayor of London has set targets for tens of thousands of new homes to be built by 2028/29 across the capital, as well as within, the Opportunity Areas that includes Bexley. This housing represents a major heat supply opportunity and with London house building being so changeable from year-to-year, it is important that a review is carried out at least every two years to stay abreast of the everchanging opportunities. 101. With regard to paragraph 8.1.22b, the GLA maintains its position as set out in its Post Hearing Written Submission of Oral Case at paragraph 103b, that for the purposes of determining the carbon impact of the ERF, NPS 1 and NPS 3 prevail. The primary purpose and methodology set out in the EU Energy Efficiency Directive is to achieve higher levels of energy efficiency within the EU and thereby increase energy security through reducing dependency on imported energy. The objectives of the Directive are therefore entirely different from those of the NPS which is about transition to the low carbon economy, and by implication, the Directive carries far less weight. The Applicant's assertion that the Directive is material to the assessment of the ERF carbon dioxide emission reduction performance is refuted by the GLA. 102. The GLA does not regard the Applicant's submission at paragraph 8.1.22c as having introduced any new information or analysis and therefore its position on the shortfalls of their CHP study work in terms of being insufficiently robust as set out by the GLA in the Deadline 2 Written Representation 3.3, remain. Furthermore, the Applicant's Combined Heat and Power Supplementary Report (5.4.1, REP2-012) does not meet the requirements of NPS EN-1, 4.6.6, in that it does not provide an audit trail of dialogue between the applicant and prospective	94-104. The Applicant has provided a detailed response to amendments to the Combined Heat and Power Requirement (now **Requirement 26** of the **dDCO (3.1, Rev 3, REP5-003)**) in **the Applicant's response to comments on the draft Development Consent Order (8.02.54, REP5-025).** On the basis that the Applicant would propose to follow the methodology set out in Environment Agency guidance "*CHP Ready Guidance for Combustion and Energy from Waste Power Plants*", February 2013, in carrying out the CHP review pursuant to **Requirement 26**, the Applicant would be obliged to consider potential viable opportunities that reasonably exist within a 10 km radius of the Proposed Development. As such, the Applicant is content to include the 10 km radius drafting within the requirement in the next iteration of the dDCO to be submitted at Deadline 8. The Applicant has not made any reference to the Energy Efficiency Directive being material to the ERF carbon dioxide emission reduction performance. Rather, the Applicant has stated that given its status as a European directive, compliance with it should be given due weight. The Applicant has demonstrated in **Section 7.3** of its **Combined Heat and Power Assessment (5.4, APP-035)** that the relevant threshold under the Energy Efficiency Directive would be achieved, and therefore the proposals would qualify as high-efficiency cogeneration under the Directive. The Applicant has also explained in **Paragraph 4.1.3** of the **Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)** how it has complied with national, regional and local policy position in relation to the provision and/or opportunity for CHP. The Applicant has set out in detail in its methodology adopted for the purpose of heat demand assessment in **Table C.3** of **Appendix C** of the **Applicant's Response to the GLA Deadline 3 Submissions (8.02.35, REP4-014)**. Assessments are carried out in accordance with applicable Government and Environment Agency guidance and toolsets. Proposals were developed taking account of stakeholder engagement undertaken by the Applicant. This has included discussions with local planning authorities (London Borough of Bexley and Royal Borough of Greenwich), the GLA, housing developers (Peabody and Orbit Homes), and local industry partners. The Applicant is proud to have been a founding member of the Bexley District Heating Partnership Board. These discussions have been used to inform the technical design and commercial parameters for the proposed heat network. The Applicant therefore considers that the proposals are robust and represent a realistic and achievable ambition, notwithstanding third party responsibilities for a scheme of this scale. The level of detail adopted within the basis of proposals is fully aligned with relevant Environment Agency guidance and is appropriate given the development stage of the Proposed Development. The Applicant has set out in **Paragraph 2.2.14** of **the Applicant's Response to the GLA Deadline 4 Submissions (8.02.46, REP5-017)** an audit trail comprising the GLA meeting minutes from Bexley District Heating Partnership Board meetings held on 29 May 2018 and 09 January 2019 (provided in **Appendix B** to that document). The GLA was present at both of these meetings. **Paragraph 2.3.1** of the same document sets out further liaison between the Applicant and the public sector in respect of heat export. Additionally, Peabody's letter of support dated 17 April 2019, provided as **Appendix A** to the **Supplementary Combined Heat and Power Report (5.4.1, REP2-012)**, evidences earlier dialogue and meaningful progression with regards heat export. The Applicant will continue this commitment and work alongside RRRF, local authorities, the GLA and the private sector to seek to deliver a technical and viable heat export. The co-joined working group, required as part of Requirement 26 of the dDCO, secures this commitment. The Applicant rejects the GLA's assertion that the ERF would be a carbon producer when

Item	Applicant's Comment	GLA's Comment	Applicant's Response
		customers. 103. The GLA does not regard as relevant the Applicant's claim that the ERF, when operating in power-only mode, would be the most efficient ERF in the UK. The GLA sets out the argument in the GLA Deadline 4 Final Report, 2.18 to 2.21, that even in the event the Applicant's unproven claims that the electrical efficiency could be achieved, the ERF would be a carbon-producer when operating in power-only mode. This is based on a comparison with gas-fired combined cycle gas turbine (CCGT) plant as the marginal source of electricity generation that ERF would displace from the electricity grid: CCGT has a lower carbon intensity than the ERF. The GLA in its Deadline 3 Submission – Appendix 3, 1.1, 2) and 1.2, 11), 12) highlights the use of government data to clearly demonstrate that the current electricity grid carbon intensity is lower than that of CCGT and that the grid carbon intensity is forecast to continue to reduce. The GLA maintains its assertion that the ERF would only be a carbon-reducer if it is operated as a CHP plant 104. This is because achievement of the current CIF target of 400 g CO2e per kWh of electricity will still result in electricity being generated that is considerably more carbon intensive than the current grid average	operating in power only mode. The GLA asserts that the ERF would have a higher carbon intensity than CCGT and that the carbon intensity of the grid is expected to fall. The Applicant provided a detailed response to this assertion at Deadline 4. In **Section B.3** of **Appendix B** to the **Applicants response to Greater London Authority Deadline 3 Submission (8.02.35, REP4-014)**, the Applicant has demonstrated that electricity generated at the ERF would have a lower carbon intensity than the grid average in every year until at least 2050. The Applicant does not agree that achieving the CIF target of 400 gCO2/kWh would mean that the ERF is generating power with a carbon intensity higher than the grid average. This is because the CIF calculation does not take account of the benefits of displacing landfill. When calculated correctly in accordance with DEFRA Guidance, the ERF has a clear carbon benefit when achieving the CIF target.

2.21 Appendix A

Item	Applicant's Comment	GLA's Comment	Applicant's Response
A.2.1	"The Applicant does not agree that it is 'necessary to determine the component of the C&I waste stream which qualifies as similar in nature to household waste' "Applicant's Response to Appendix 2A: GLA Post Hearing Written Oral Submission Summary-	105. Appendix A of document 8.02.35 provides a detailed analysis of the GLA's Appendix 2A to its Post Hearing Written Oral Submission Summary (Definition of Municipal Waste). This response seeks to point out key areas of disagreement between the GLA and the Applicant. The GLA's position as set out in earlier submissions is maintained unless expressly stated. 106. A key point of departure between the approaches of the GLA and the Applicant to assessing the need for incineration is that the Applicant does not agree (as stated at A2.1) that it is necessary to determine the component of the C&I waste stream which qualifies as similar in nature to household waste. Contrary to this view, the GLA maintains the opinion that it is self-evident that any assessment of incineration capacity requirements should discount waste streams which cannot be processed by this technology. 107. European Waste Catalogue (EWC) codes which would be legally accepted at the REP ERF are defined within its Environmental Permit application 'Riverside Energy Park, Environmental Permit Supporting Information' (December 2018)7. These codes encompass a small subset of the total European Waste Catalogue, clearly demonstrating that a wide range of wastes could not be accepted at the ERF (either technically and/or due to Environmental Permit restrictions).	105 – 107. The GLA is correct to confirm that the Environmental Permit will identify the wastes that can legally be accepted at REP. Further, the Applicant has previously agreed with the GLA that not all of the C&I waste stream will be suitable for combustion. The point that the Applicant is making is that the GLA's approach is seeking to apply an inappropriate level of precision to data that is out of date and cannot be corroborated. The Applicant maintains that the GLA's forecasts are based on data that is out of date, and in the case of C&I wastes cannot be fully evidenced. In its most recent UK Statistics on Waste (February 2019) Defra states '*C&I waste generation remains extremely difficult to estimate owing to data limitations and data gaps. As a result, C&I estimates for England have a much higher level of uncertainty than Waste from Households (or other Local Authority Collected Waste) and users should exercise caution in application of the figures and interpreting trends over time'*. It is simply not appropriate to seek the level of precision that the GLA does (and which national policy states should be avoided) on data that cannot be corroborated. As set out at **Appendix A** of the **Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014)**, the GLA's assumptions in relation to C&I wastes are not without difficulties; principally in that it is based on out of date information and differs from the information relied upon within the London Environment Strategy (Table 9 of Appendix 2 the London Environment Strategy: Evidence Base (the 'LES: Evidence Base') is the relevant reference).
A.2.2	'(T)he GLA is inconsistent in its consideration of the C&I waste stream'.	108. The Applicant states at A2.2 that "the GLA is inconsistent in its consideration of the C&I waste stream". The London Plan intentionally makes provision for all commercial and industrial waste streams, to ensure adequate future waste management capacity in the Capital. In contrast the London Environment Strategy focusses specifically on municipal waste, this being the subject of prevailing European and national targets. There is no internal inconsistency within policy documents, but the Applicant must recognise that different policy documents have different remits and such differences do not amount to inconsistency.	108. The Applicant agrees with the GLA that the different documents have different remits, the adopted and draft London Plan are development plan documents and carry consequent weight in planning decision making. The London Environment Strategy is not a development plan document and is not subject to independent examination, as is the case for the London Plan, but is identified as relevant to consideration of the waste strategy within London. This is set out in **Section 2.2** of the **LWSA (Annex A of 7.2, APP-103)** and underpins how the LWSA was conducted. The claim regarding inconsistency relates to the GLA's consideration of the C&I waste stream, where in the preparation of the draft London Plan the GLA has simply used total C&I arisings and applied its forecasting assumptions to model future scenarios, where as in the preparation of the Environment Strategy, the GLA begin to try and identify 'municipal waste' within the C&I waste survey data. The GLA has never set out an objection to the Applicant's use of the adopted or draft London Plan forecasts.
A.2.3	'(T)he proportions of C&I waste assumed to be municipal waste are not, of themselves, unreasonable. However, they have been produced from survey data that is now out of date'.	109. The Applicant states at A2.3 that '(T)he proportions of C&I waste assumed to be municipal waste are not, of themselves, unreasonable. However, they have been produced from survey data that is now out of date'. 110. As noted above, the GLA supports the ongoing improvement of data characterising the commercial and industrial waste stream. However, the Defra C&I survey remains the only published, statistically rigorous, dataset which is fit for purpose as a basis of projections. From a methodological viewpoint, it is clearly preferable to make use of this dataset (whilst acknowledging its limitations) as opposed to entirely ignoring the issue of waste stream suitability for incineration.	109-110. The Defra 2009 Survey was not well received at the time it was undertaken (not least being criticised for its sample size and timing), but in any event, the Applicant considers that it is now out of date. This is demonstrated (in some detail) in **Appendix A of the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014)**, with paragraph A.2.6 concluding: '*The Defra 2009 Survey relied upon by the GLA is simply not reflective of the commercial and industrial activities undertaken in London today, let alone in another ten years or by 2036. This means that the GLA's submission are relying on detailed analysis that is unlikely to be relevant*.'

Item	Applicant's Comment	GLA's Comment	Applicant's Response
			The Applicant's approach is entirely reasonable, and it has not entirely ignored this issue. At **Paragraph A.3.7** of **Appendix A** to the **Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014),** the Applicant has referenced the GLA's assumption in relation to C&I waste suitability for REP. Whilst this assumption is not fully justified by the GLA, the Applicant has demonstrated that even assuming only 80% of all residual wastes (c.900,000) are suitable for combustion, there remains a need for new residual waste treatment of c.700,000 tonnes should the GLA's assumption relating to C&I waste suitability be taken into account. .
A.2.4 to A.2.6, and Table A.1	The Applicant cites at A.2.4 to A.2.6, and Table A.1 the changing turnover in commercial and industrial waste sectors as evidence that the Defra C&I survey is out of date. For example para. A.2.5: 'Total turnover generated by businesses in London (excluding the financial sector) has grown in real terms by 18.4% over 2009-2017. Demonstrating that 2009 was the low point caused by the recession; real terms growth from 2008 is just 4.2%.'	111. The Applicant cites at A.2.4 to A.2.6, and Table A.1 the changing turnover in commercial and industrial waste sectors as evidence that the Defra C&I survey is out of date. 112. GLA projections for overall C&I waste arisings, developed for the London Plan, account for historical and projected changes in employment by business sector. This is a key motivation in making use of the Defra survey, which provides separate waste generation estimates for each of London's commercial and industrial waste sectors. GLA C&I wastes forecasts are calculated on a sectoral basis, generation rates per employee (determined via the Defra survey) being multiplied by forecasted sector employment. Taking this approach, forecasts account for the relatively high growth of London's commercial sectors compared to industry.	111-112. This clarification from the GLA is helpful, and the Applicant would agree that using a sectoral basis and generation rates per employee is a sound basis for developing C&I waste estimates. However, the survey size was relatively limited, incorporating just 3,273 face to face surveys, just 980 of which were London. By comparison, the C&I Survey undertaken for Wales in the same year used 1,500 surveys. It is also worth remembering that the Survey was undertaken at the depth of the national recession. Further, the Applicant's concern with the Defra 2009 Survey is that the generation rates per employee are now a decade old and the GLA does not appear to have tested the sensitivity of the using these generation rates by applying different generation rates. This is an example of the lack of transparency present in the GLA's submissions and further demonstration that it should not be relied upon.
A.2.7	Reference to waste categorisation by substance-oriented classification (SOC) as opposed to European Waste Catalogue (EWC) code.	113. The Applicant seeks to dismiss (at A2.7) the GLA's reference to waste categorisation by substance-oriented classification (SOC) as opposed to European Waste Catalogue (EWC) code. 114. However, the Defra C&I survey was undertaken on the basis of SOC, and no equivalent dataset differentiated by EWC exists. Consideration of the proportion of C&I waste which is suitable for incineration, albeit on an approximate basis, is preferable to neglecting the issue of suitability entirely (as advocated by the Applicant).	113-144. The difference between SOC and EWC was highlighted as an example of how the Defra 2009 Survey is now out of date. It is also incorrect to assert that the Applicant has entirely ignored this issue. At **Paragraph A.3.7** of **Appendix A to the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014),** the Applicant has referenced the GLA's assumption in relation to C&I waste suitability for REP. Whilst this assumption is not fully justified by the GLA, the Applicant has demonstrated that even assuming only 80% of all residual wastes (c.900,000) are suitable for combustion, there remains a need for new residual waste treatment of c.700,000 tonnes should the GLA's assumption relating to C&I waste suitability be taken into account.
A 2.8 and Table A.2	Applicant states that there is inconsistency with data presented in the London Environment Strategy	115. The applicant states that there is inconsistency with data presented in the London Environment Strategy (A2.8 and Table A.2). 116. Data labelled by the Applicant as 'Table 1, GLA Appendix 2a' corresponds to the Defra C&I survey baseline year (2009), while data under 'Table 9, LES: Evidence Base' is an extrapolation to year 2017. Hence the difference highlighted by the Applicant is simply due to selection of differing reference years, as opposed to any inconsistency	115-116. This clarification from the GLA is helpful. However, it is also another example of the difficulties introduced by the GLA's approach of providing information in discrete parcels, rather than as one complete, transparent model (as the Applicant has done with the **LWSA (Annex A of 7.2, APP-103)**). Further, the GLA has neither given details of how it has extrapolated the Defra 2009 Survey, nor confirmed which dataset it is currently relying upon: that set out in the LES Evidence Base; or that set out in its Appendix 2A.
A.2.9	"The GLA has still not provided the modelling it undertook to prepare the London Environment Strategy, despite being requested by the Applicant on several occasions.'	117. The Applicant states at A2.9 that 'The GLA has still not provided the modelling it undertook to prepare the London Environment Strategy, despite being requested by the Applicant on several occasions". This is incorrect. The GLA has clearly articulated its methodology in Appendix 2A Cory DCO: GLA Post Hearing Written Oral Submission Summary', submitted at Deadline 3.	117. The Applicant's statement is correct; the GLA has not provided its modelling. As demonstrated in the Applicant's response above, providing elements of methodology and unexplained figures from different years leads to confusion.

Item	Applicant's Comment	GLA's Comment	Applicant's Response
A.3.1 to A3.5	Assertions that the Applicant is unable to replicate the GLA's approach.	118. The Applicant asserts at A3.1 - A3.5 that it is unable to replicate the GLA's approach. It appears to ignore the methodological detail provided by the GLA Appendix 2A at Deadline 3, including a line by line reconciliation of the GLA methodology against the Applicant's in Table 2.	118. The GLA's Appendix 2A does not provide its complete modelling. It does provide some of the GLA's method and figures, but as has been made clear in this response and previous responses, these are not easy to follow and do not readily add up correctly. The Applicant's statement at **Paragraph A.3.1** of **Appendix A to the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014),** is correct; despite a number of requests, it has never been provided or been able to see the GLA's modelling and has been unable to replicate it from the information provided by the GLA.
A.3.6	'The GLA is correct to say that the Applicant's assessment (the LWSA, Annex A of The Project and Its Benefits Report, 7.2, APP-103) considers 100% of C&I waste to be combustible.'	119. The Applicant states at A3.6 that 'The GLA is correct to say that the Applicant's assessment (the LWSA, Annex A of The Project and Its Benefits Report, 7.2, APP-103) considers 100% of C&I waste to be combustible.' 120. The hypothesis that all C&I waste is combustible can be easily tested with reference to waste arising data. 121. The Defra C&I survey 'Commercial and Industrial Waste Survey 2009 Final Report' (May 2011) provides a composition for C&I waste generated in London (Table M3, page 123). This identifies waste stream proportions mineral and metallic wastes, which have negligible calorific value and cannot be combusted. 122. Moreover, the criterion that waste is 'combustible' is a necessary but not sufficient condition for suitability for incineration. A large proportion of healthcare and chemical waste streams within the definition of C&I waste is likely to require management via specialist hazardous waste treatment facilities, and could not be safely processed at conventional municipal waste incinerators such as the REP ERF (indeed EWC codes under these categories are likely to be largely excluded from the REP environmental permit).	119-122. This matter has been addressed previously in this response. In short, **Paragraph A.3.7** of **Appendix A to the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014),** references the GLA's assumption in relation to C&I waste suitability for REP. Whilst this assumption is not fully justified by the GLA, the Applicant does not dispute the fact that not all C&I waste, including some healthcare and chemical elements, are suitable for combustion. The Applicant thereby demonstrates that even assuming only 80% of all residual wastes (c.900,000) are suitable for combustion, there remains a need for new residual waste treatment of c.700,000 tonnes. The Applicant considers this to be a conservative estimate of future residual waste treatment requirements in London.
A.3.6	Quoting NPS, the applicant states that 'appropriate type and scale so as not to prejudice the achievement of local or national waste management targets', indicating that composition is not of relevance.	123. At A3.6, quoting NPS, the Applicant states that proposed waste combustion generating stations should be of an 'appropriate type and scale so as not to prejudice the achievement of local or national waste management targets', inferring that composition is not of relevance. 124. In modelling required scale, it is necessary to consider composition, in order to ensure that new facilities are sized for the relevant waste streams. In fact this is inherent in the Applicant's own approach to assessing need, which excludes construction and demolition waste (this waste stream being almost entirely unsuitable).	123-124. The GLA is correct that the construction and demolition waste is largely unsuitable for REP. However, it would contain wastes (eg timbers) that would be suitable and these have not been included in the **LWSA (Annex A of 7.2, APP-103)**. The Applicant has presented a simple, but effective and transparent assessment that demonstrates a need for new residual waste treatment capacity in London, and elsewhere. The GLA has made an assumption that when looking at the composition of C&I waste, 80% is suitable for combustion. Whilst this assumption is not fully justified by the GLA, the Applicant has demonstrated that even assuming only 80% of all residual wastes (c.900,000) are suitable for combustion, there remains a need for new residual waste treatment of c.700,000 tonnes should the GLA's assumption relating to C&I waste suitability be taken into account.
A.3.8	'That the GLA now also relies on 'a reduction in mass of residual waste due to pre-treatment' (bullet point b of paragraph 11) is a wholly new point.'	125. The Applicant objects to the fact (A3.8) that "the GLA now also relies on 'a reduction in mass of residual waste due to pre-treatment'". 126. This is not a new point. The effect is accounted for in the GLA's projections included in the London Environment Strategy, and throughout projections provided in the GLA's representations. 127. As an experienced waste operator, the Applicant will be aware of the existence of pre-treatment facilities which reduce the mass of residual waste – these facilities operate across the UK, including in London. Consideration of the impact of these facilities is integral to any mass balance calculation intended to determine requirements for incineration. This is universally recognised by commentators on the UK waste market – for example in its report on behalf of the ESA 'UK Residual Waste: 2030 Market Review' (November 2017)9 Tolvik explicitly models the impact of MBT facilities.	125-126. The Applicant retains its objection to the introduction of mass loss as a wholly new assumption. The GLA asserts that the effect is accounted for in its projections included in the London Environment Strategy. In fact, neither the London Environment Strategy nor its Evidence Base refer to mass loss. Both documents refer to pre-treatment, but make no statement about their capacity and how this has affected the forecast arisings. Again, the GLA's approach is demonstrated to lack transparency, and credibility. 127.The Tolvik Report does identify mass losses from mechanical biological treatment plant; the Applicant agrees that this does occur. However, the Tolvik Report is able to make this analysis on the basis of knowing both the waste types and quantities that those facilities accept. It is an appropriate calculation to make to understand the effect of those facilities on the residual waste market. The Applicant has no evidence from the GLA for its assumptions regarding mass losses and there was no information provided in the forecast data for the London Plans for the Applicant to use. In any event, the GLA is applying its assumption to

Item	Applicant's Comment	GLA's Comment	Applicant's Response
			waste tonnages that are simply forecasts based on out of date information; the GLA cannot have the same level of confidence in either the waste type or tonnages that it is analysing.
A.3.8	'(T)he statement is wholly reliant on those new treatment facilities being brought forward to achieve that assumed mass reduction'.	128. A reduction in the mass of residual waste is achieved by pre-treatment plants, including mechanical biological treatment (MBT) facilities, which biodegrade and/or heat residual waste. Large scale operational examples of these facilities in London include Jenkins Lane MBT and Frog Island (operated by Renewi), as well as Old Kent Road MBT (operated by Veolia). 129. This mass reduction is therefore underpinned by existing, operational facilities, rather than being 'wholly reliant' on new capacity.	128. As stated above, in response to GLA paragraph 127, the Applicant has no evidence from the GLA for its assumptions in relation to mass losses. The London Environment Strategy Evidence Base states '*The remaining five per cent (previously estimated at 11 per cent) is managed via other pre-treatment or unknown processes (see Figure 63)*.' (page 95). This tells us that the GLA has, at some point, overestimated that amount of pre-treatment, and other unknown processes, that were operating, or that the assumptions are based on new capacity. It is not possible to verify any information on the GLA's mass loss assumption and it cannot be relied upon. 129. The London Environment Strategy Evidence Base concludes, on pages 102 and 103, that '*In summary, London is expected to: … need around 100,000 to 310,000 tonnes of pre-treatment capacity in scenarios 2 and 3, respectively, due to high amounts of waste expected to be produced and pre-treated prior to going to EfW, recycling or landfill …*'. Clearly, there does remain a need for new pre-treatment capacity within London.
A.3.9	'763,000 tonnes of waste, treated by facilities in London to create refuse derived fuel ('RDF'), was sent to a destination overseas'.	130. The Applicant states that "763,000 tonnes of waste, treated by facilities in London to create refuse derived fuel ('RDF'), was sent to a destination overseas". 131. It essential to emphasise that the mass export of RDF from sites located in London is not equivalent to the mass of RDF derived from residual waste generated in London. Operators referenced by the Applicant may process residual waste and RDF which is in fact generated outside London. For example: The Applicant claims that 'Suez Recycling & Recovery South East Ltd' exported 138 kt of RDF from London in 2017. Review of Environment Agency records of the origin of inputs to this facility (derived from Waste Data Interrogator, as used by the Applicant) shows that in 2017, the same operator imported 134 kt of RDF from Essex to its London facilities. 132. It therefore appears highly likely that a significant proportion of the RDF export tonnage attributed by the Applicant as being generated in London in fact originates from outside the Capital. 133. Moreover, any quantification of RDF flows in 2017 is not of direct relevance to London's projected long-term waste management needs to 2030 and beyond. Over this timescale, generation of residual waste (the ultimately feedstock for RDF production) will be substantially reduced by recycling improvements in line with Circular Economy (CE) targets, with a carbon benefit much greater than any attributable to incineration.	130-133. The GLA is correct, RDF exported from London may have been produced from waste that originated outside of London, this is why the **Paragraph A.3.10** of **Appendix A to the Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014),** deliberately states that nearly 763,000 tonnes of waste, '*treated by facilities in London to create*' RDF was sent to a destination overseas. The Applicant can confirm that facilities exporting the 763,000 tonnes of RDF did receive waste that was brought into London from outside the capital. However, reference to the data shows that of all the wastes received at those facilities, approximately 60% originated in London and that of the waste coded 20 03 01 Mixed Municipal Waste received at those facilities, 68% originated in London. The majority therefore originated in London. In any event, waste is a market commodity and will move around to different facilities, the GLA is not able to control that movement. For market reasons, the waste that comprises that RDF has come to London to be managed, it is in the Capital. It is also a pre-treated, residual material that satisfies all of the GLA's assumptions. It is entirely appropriate to recognise that material and to seek to use it within London, so that London can gain the many benefits of REP, not least the recovered energy. RDF production should be considered relevant and important. Not least the London Environment Strategy is seeking the development of additional pre-treatment facilities that are likely to produce RDF, which will require a final destination. Further, there is no clear strategy for the export of RDF should the UK leave the EU on 31 October 2019; those 763,000 tonnes of RDF may end up being consigned to landfill if there is no energy recovery facility available to combust them. Despite all the above, the Applicant has clearly outlined in **Section 2** of the **Applicant's response to Greater London Authority Deadline 3 Submission (8.02.35, REP4-014**) that even when London's waste reduction and recycling targets are achieved, there is a need for c. 900 000 tpa of residual waste management capacity within London.

Item	Applicant's Comment	GLA's Comment	Applicant's Response
A.3.12 to A.3.15	References to GLA forecasts as 'hybridisation', 'confusing' etc.	134. The Applicant makes various statements (A3.12 – A3.15) stating that the GLA's forecast data is 'confusing' or a 'hybridisation'. 135. These are a distraction and do not seek to address the key points of departure between GLA projections and those of the Applicant, which are clearly identified by the GLA in Appendix 2a at Deadline 3.	134-135. The Applicant has responded in detail to the GLA's submissions, including addressing the key points of departure, all as set out at **Appendix A** to the **Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014),** to which the GLA has responded in the following paragraphs.
Table A.3	Applicant's response to calculations provided at Deadline 3 in 'in 'Appendix 2A Cory DCO: GLA Post Hearing Written Oral Submission Summary', Table 2.	136. The Applicant makes reference in Table A.3 to an assumption that 80% of total C&I waste is municipal, indicating that this fraction is incorrectly applied. To be clear, this fraction is calculated according to the methodology detailed in Table 1 of Appendix 2A: GLA Post Hearing Written Oral Submission Summary', giving a projected factor of 76%. This is evident if the municipal C&I component identified in Table 1 (3.5 Mt) is divided by the C&I total (4.6 Mt). This misunderstanding appears to account for the Applicant's difficulties in reproducing GLA projections, and assertions that tonnages are 'calculated incorrectly'. 137. Contrary to assertions made by the Applicant that the "GLA is presenting forecasts that have not been presented previously", Appendix 2A simply expounds the methodology underpinning projections included in previous representations. 138. As noted above, the claim that the "GLA has introduced a wholly new step in terms of including mass losses occurring through pre-treatment" is misleading. The effect of mass losses is included throughout projections published by the GLA and put forward in its representations. MBT facilities play a prominent role in managing London's waste – calculation of their impact is an essential methodological step in modelling the mass balance for residual waste management, and determination of future incineration requirements. Neglect of any consideration of the impact of mass losses is a surprising anomaly given the experience of the Applicant in the waste industry. 139. In summary, the critique presented by the Applicant in Table A.3 misinterprets the GLA's approach, while continuing to ignore factors which are material to future incineration requirements, namely the suitability of waste streams for incineration and reduction in residual waste volumes due to pre-treatment. 140. As noted above, these factors are well recognised as being significant in determining requirements for incineration, including by Tolvik, upon whom the Applicant has relied in other aspects of its representations. 141. As such, adjusted calculations included by the Applicant in Table 3.A do not provide a valid account of requirements for incineration of residual waste generated in London.	136. The GLA is also correct to advise that a factor of 76% can be deduced from Table 1 of the GLA's Appendix 2A. However, as set out at **Appendix A** to the **Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014),** the GLA's Table 1 is not without its difficulties; principally in that it is based on out of date information and differs from the information relied upon within the London Environment Strategy (Table 9 of Appendix 2 the London Environment Strategy: Evidence Base (the 'LES: Evidence Base') is the relevant reference). These differences are shown at **Table A.2** of **Appendix A** to the **Applicant's response to GLA Deadline 3 Submission (8.02.35, REP4-014).** Further, as demonstrated above in response to the GLA's paragraph 5, Table 2 of the GLA's Appendix 2A is also not without difficulty. The resultant level of need for residual waste treatment capacity, applying all of the GLA's assumptions, should be 250,000 tonnes, not 90,000 as stated in Table 2. 137-138. As the Applicant has demonstrated, several times within this response, the GLA's methodology and approach to assessing the 'need' for REP is not clear and does introduce new elements. Not least. the assumption in relation to mass losses, which as the Applicant confirms in its response to the GLA's paragraphs 125 to 129 above, is a new assumption that has not been clearly set out. As explained above, in response to the GLA's paragraphs 10 and 11, the Applicant's approach does not represent a '*surprising anomaly*'. The **LWSA (Annex A** to **7.2, APP-103)** is reliant on the GLA's forecasts (only partially updated with LACW data from 2016/17). It would be no more appropriate for the Applicant to seek to achieve any greater level of precision in its assessment than it is for the GLA. The GLA's approach in relation to the suitability of C&I wastes and mass losses is simply to apply as many assumptions as possible to forecasts; forecasts that are based on data that is out of date, and in the case of C&I wastes cannot be fully evidenced. 139-141. The Applicant has provided a full critique of the GLA's submission in Appendix 2A, and focusses on the GLA's determining factors of suitability of C&I waste and mass losses. In terms of the GLA's assumption in relation to C&I waste suitability for REP: whilst this assumption is not fully justified by the GLA, the Applicant has demonstrated that even assuming only 80% of all residual wastes (c.900,000) are suitable for combustion, there remains a need for new residual waste treatment of c.700,000 tonnes. In order to achieve the GLA's assumptions in relation to mass losses, London requires at least 100,000 tonnes of new pre-treatment capacity to be built and operated; the Applicant is not aware of any new pre-treatment development proposals, and it would be a risky strategy to rely on new facilities that may not ever become operational. In any event, these are not relevant or important considerations to the Examining Authority in determining the effect that REP would have on the national or local waste strategy, which is the test set out in NPS EN-3. By contrast, the **LWSA (Annex A** to **7.2, APP-103)** presents a wholly credible and reasonable demonstration that REP will not prejudice the waste hierarchy within London, or

Item	Applicant's Comment	GLA's Comment	Applicant's Response
			elsewhere. Further, the GLA is ignoring the 763,000 tonnes of RDF, produced in London that is currently being exported overseas. Of itself, this is a wholly appropriate resource of fuel for REP that would satisfy all of the GLA's assumptions. With all the points outlined above, the Applicant has provided not only a valid assessment of residual waste treatment requirements, but also one which is transparent and defensible.
A3.17	'(T)he GLA's modelling (such as it has provided) does not add up and is constantly changing.'	142. The Applicant has sought to diminish and undermine GLA projections through frequent repetition of misleading statements such as that set out in A3.17 "(T)he GLA's modelling (such as it has provided) does not add up and is constantly changing". 143. For the avoidance of doubt, and focussing on year 2036 for brevity: • Combined household, commercial and industrial waste generation in London is projected at 8.6 Mt. This finding is consistent across the London Plan, the GLA's Written Representation (GLA/4509/WR) and 'Appendix 2a Cory DCO: GLA Post Hearing Written Oral Submission Summary' (submitted at Deadline 3). • Rather than introducing any new methodological steps, Appendix 2a simply details the GLA's mass balance modelling methodology, as requested by the Applicant. • Consistent with the GLA's Written Representation (GLA/4509/WR), Appendix 2A demonstrates an incineration capacity excess of 300 kt (or a marginal gap of circa 90 kt if contracted exports of waste to incinerators outside London are excluded).	142-143. The GLA's approach is not clear. A total of 8.6 million tonnes is presented in the evidence base to the draft London Plan and in the GLA's Written Representation (at Table 2). The component parts (3.5 million tonnes of household waste and 5.1 million tonnes of C&I waste) are present in Table 2 of the GLA's Appendix 2A, but the total of municipal waste in 2036, relied upon by the GLA, is 7.3 million tonnes. The figure of 8.6 million tonnes is not stated in Appendix 2A and the GLA provides no explicit explanation for the 7.3 million tonnes (hence the Applicant's confusion on the C&I waste suitability assumption that the GLA has used). Further, as demonstrated above in response to the GLA's paragraph 5, Table 2 of the GLA's Appendix 2A is also not without difficulty. The resultant level of need for residual waste treatment capacity, applying all of the GLA's assumptions, should be 250,000 tonnes, not 90,000 as stated in Table 2.
A3.18	The Applicant has updated its review of other authorities' needs and provided full referencing; there remains a demand for at least 1.5 million tonnes.	144. The Applicant re-states at A3.18 that it "has updated its review of other authorities' needs and provided full referencing; there remains a demand for at least 1.5 million tonnes". 145. As noted above, the finding of a 1.5 Mt capacity gap in neighbouring Waste Planning Authorities relies on a dismissal of projections published by Kent and Essex County Councils, as well as (in some cases) use of outdated documents, and misrepresentation of conclusions.	144-145. The Applicant's reference to residual waste treatment requirements within authorities surrounding London, and the GLA's criticisms of the Applicant's approach is addressed from **Paragraph 5.3.20** of the **Applicant's response to GLA Deadline 4 Submission (8.02.46, REP5-017).** The Applicant confirms that it has considered the most recent published forecasts and has quoted directly from relevant other Local Plan documents, with the exception of Kent (where serious concerns are held and have been submitted in writing by a number of parties to the local plan Examination). Even in the case of Kent, the Applicant has not inserted forecasts that it believes to be correct, but has simply identified no capacity gap or need. This is not considered to be an approach that undermines those forecasts, but is considered to be an entirely reasonable approach.

2.22 Appendix B

Item	Applicant's Comment	GLA's Comment	Applicant's Response
The Applicant's response to the GLA's Deadline 3 Submission Appendix 3: the Eunomia Report on the performance of the REP	Eunomia concludes that REP would have a higher carbon intensity than grid electricity and so cannot be considered to be a low carbon energy facility. This is incorrect because Eunomia does not take account of the wider benefit of REP in avoiding landfill. When this is taken into account, the carbon intensity of power generated by REP is lower than the long run marginal emissions factor preferred by Eunomia	Beyond this, as was discussed previously in 4.4.1, it is far from clear that waste would be landfilled if the facility was not developed; the waste may instead be incinerated or recycled. As such, the adjustment of the carbon impacts to account for landfill savings is not appropriate.	The Applicant has responded to this point in **Section 2.7** above.

2.23 Appendix C

Item	Applicant's Comment	GLA's Comment	Applicant's Response
Table C.4: Applicant's Response to Air Quality matters raised in GLA's Sheet 1 Submission	2.5.36 As detailed in the Environmental Permit and Air Quality Note (8.02.06), submitted for Deadline 2, the Applicant is proposing the installation of the NOx abatement technology of Selective Catalytic Reduction (SCR). The proposed SCR will result in significantly lower NOx emissions than were applied in the air quality assessment reported in Chapter 7 Air Quality of the ES (6.1, Rev 1).	146. Aside from the selective quotations from the GLA's previous response, there is little new information in the applicant's response. 147. The Applicant states that the SCR can be accommodated within the stepped building, and therefore within the Rochdale envelope in the DCO. However, this misses the point that this is not shown to be the case on the submitted plans. To be clear, the GLA are not saying that SCR cannot be fitted into the design, merely that the applicant has not demonstrated it. 148. In terms of the likely emission limit to be imposed by the permit, the Applicant's response adds little except to note the recent progress of the BREF note. Without a detailed permit or a re-assurance from the Environment Agency emission limits beyond BAT cannot be relied on.	146-148. Responses to comments on Air Quality from the GLA, as well as other interested parties, are contained in a single submission document, **Applicant's response to Air Quality Matters (8.02.70)** submitted at Deadline 7.
2.5.37 The Applicant understands the general sensitivity of air quality impacts within Greater London. Taking this into consideration, within the Environmental Permit (EP) application, the Applicant has proposed to commit and invest in the 'lowest' emission limit within the EP application for any conventional ERF within London or the UK. This will be secured in the EP	The Applicant agrees that the Draft WI BREF presents a BAT-ELV range of 50 – 120 mg/Nm3 for abatement of NOx from new ERFs. A balance must be drawn between the limit imposed, the level that can be accepted by funders in terms of proven technology, space constraints and the cost of delivering the specified limit. It should be noted that at the proposed limit of 75 mg/Nm3 the ERF at REP would be the lowest NOx emitter of any conventional ERF currently consented or operating within the UK. There is no obligation to propose an emission limit at the bottom of the BAT-ELV range and the impacts at the proposed limit of 75mg/Nm3 have been demonstrated to be 'negligible' at sensitive receptors, as reported in Chapter 7 –Air Quality of the ES(6.1, REP2-019) (even with emissions of 120mg/Nm3) and clarified within the Environmental Permit	149. This section adds little new information to that previously provided on the content of the draft BREF. 150. The GLA disagree with the Applicant as to whether the impacts of the increased NO2 concentrations at homes affected by the plant are acceptable at 120 mg/m3 (the upper end of the BAT range). 151. The GLA do accept that the progress of the draft BREF note makes it less likely that an emission limit of 200 mg/m3 for NOx would be applied, although we note that the draft BREF still allows for emissions of 180 mg/m3 should SCR be found to be not applicable as BAT.	149-151. Responses to comments on Air Quality from the GLA, as well as other interested parties, are contained in a single submission document, **Applicant's response to Air Quality Matters (8.02.70)** submitted at Deadline 7.

	and Air Quality Note (8.02.06, REP2-057). The air quality modelling approach adopted is consistent for all emissions in that the proposed emission limit (being the maximum which could be expected to arise), assuming the ERF is operated on a continuous basis at maximum throughput is assumed, being a reasonable worst-case scenario. Furthermore, it is not true to suggest that the worst case is 200mg/Nm3 as the ERF would not be able to operate with such an emission limit as the draft BREF will be adopted before the installation comes into operation (as accepted by the GLA). In terms of the other pollutants, as noted in Table 7.17 of Chapter 7 – Air Quality of the ES (6.1, REP2-019), where the draft BREF note imposes tighter emission limits than the IED the tighter emission limits have been used.		

3 Applicant's Response to Schedule 2

3.1 Introduction

3.1.1 This section provides a response to *"Schedule 2 – GLA comments on document 8.02.36 "Applicant's response to London Borough of Bexley Deadline 3 Submission"* (**REP5-032**), submitted by the GLA at Deadline 5.

3.1.2 GLA (and TfL with respect to transport matters) have included the following topics within Schedule 2:

- London Borough of Bexley's (LBB) requirement for an annual waste tonnage throughput cap;
- Air quality monitoring; and
- Cap on transport movements.

3.1.3 Matters concerning air quality monitoring are addressed in the **Applicant's response to Air Quality Matters (8.02.70),** submitted at Deadline 7.

3.2 LBB Requirement for an annual waste tonnage throughput cap

Paragraph	Applicant Comment	GLA Comment	Applicant's Response
1.2.1 – 1.2.9	On the tonnage cap, the Applicant rejects that hazardous landfill NSIPs set a relevant precedent and states that whether a cap is required should be considered on the merits of each case. Several examples are provided of projects where there is no tonnage cap, including Beddington.	1. On the tonnage cap, the Applicant rejects that hazardous landfill NSIPs set a relevant precedent and states that whether a cap is required should be considered on the merits of each case. At paragraph 1.2.7, the Applicant has stated that the Environmental Permit, alongside the DCO, restricts the potential impacts of environmental effects. 2. The GLA does not consider that that this provides the necessary control of environmental effects, and concurs with the view expressed by LBB in its Deadline 4 submission (comments on Schedule 1) where it says: " The LBB does not consider that control of the capacity of the plant can be left to the Environmental Permitting regime and the Environment Agency. The assessment work undertaken in support of an environmental permit application does not reflect the scope of assessments undertaken in the EIA to support this application. LBB considers that if there are further changes to the proposed throughput of the either the ERF or the Anaerobic Digestion plants proposed by the Applicant in the future these should be subject to further environmental assessment and consideration through the planning process. This would be secured through imposition of capped waste limits on both the ERF and Anaerobic Digestion facilities". 3. Furthermore, the GLA considers that a tonnage cap is required in order to ensure that the environmental permitting regime should not be relied on to assess whether future proposals to increase the throughput of waste are consistent with the waste hierarchy and the transition to a low carbon economy. As consistently expressed by the GLA in its submissions to the ExA, it is relevant to consider how the proposed REP would affect the achievement of the waste hierarchy and the transition to a low carbon economy. 4. As stated by the GLA in previous submissions including its Written Summary of Oral Submission at paragraphs 53 and 54 and throughout the Deadline 4 document, the existence of an EP is not sufficient to ensure that the actual impacts of the development do not ultimately exceed those assessed at the planning stage. This is because the permit can be changed (e.g to increase capacity) at a later stage either by the regulator or on the request of the operator.	1-4. The Applicant has provided a response to the GLA's comments on LBB's request for an annual waste tonnage throughput cap at **Paragraphs 13.2.1** to **13.2.4** of **the Applicant's Response to the GLA Deadline 4 Submissions (8.02.46, REP5-017**). Furthermore, the Applicant's latest response to LBB's recent comments on a waste cap are set out in **Section 1.2** of **Applicants Response to the London Borough of Bexley Deadline 5 Submissions (8.02.66**). At various deadlines, the Applicant has set out that the environmental effects of the scheme, in respect of relevant environmental disciplines, will be adequately controlled through the proposed DCO requirements **(3.1, Rev 3, REP5-003).** The Applicant has amended the **dDCO (3.1, Rev 3, REP5-003)** to include Requirements on road vehicles including a cap on the amount of waste to be transported via road, noise, air quality emissions from the ERF, air quality emissions from the Anaerobic Digestion plant with abatement technology, air quality monitoring, fuel type, and a phasing programme for construction and commissioning of Work Number 1. By having these restrictions, the development will not exceed the parameters assessed in the Environmental Statement. The Applicant has not identified a response from LBB or the GLA, to date, confirming how the levels constrained by the dDCO requirements could be exceeded if a waste cap was not imposed. As such, the Applicant awaits specific confirmation of which effects, if any, are not adequately controlled following the amended **dDCO (3.1, Rev 3, REP5-003)** submitted at Deadline 5 to justify a tonnage cap. In respect of development of the ERF or Anaerobic Digestion facility, and separate imposition of waste throughput, the Applicant would again refer to the question of how the effects (which are based on transport movements, emissions, noise levels and not waste tonnage throughput) could be exceeded when robust impact related controls exist in the dDCO. Setting separate controls for the ERF and Anaerobic Digestion facility is not required since, for example, the 90 HCVs in and 90 HCVs out control on waste carrying vehicles in **Requirement 14** (**dDCO, Rev 3,REP5-003**) ensures that the effects reported in **Chapter 6 Transport** of the **ES** (**6.1, REP2-018**) are not exceeded regardless of the waste destination within REP. In addition, the Applicant notes that NPS EN-3 (paragraph 2.5.13) confirms that throughput volumes are a matter for the Applicant and not in themselves a matter for the planning regime. Instead, as per the Applicant's dDCO, decisions should be focused on the control of any adverse impacts. At Deadline 5, the Applicant introduced additional controls which mean that relevant Environmental Permit matters are also reflected in the **dDCO (3.1, Rev 3, REP5-003).** This included Requirements 15 and 16 which relate to emission limits from the Anaerobic Digestion facility and ERF. Therefore, should the Applicant increase the capacity of either facility under the Environmental Permit, it would still have to comply with the annual emission limits required under Requirements 15 and 16 of the **dDCO (3.1, Rev 3, REP5-003).** In summary, the Applicant considers that the **dDCO (3.1, REP5-003)** provides adequate control of all relevant environmental disciplines such that a waste tonnage cap is unjustified, unnecessary and unreasonable and that the examples presented as precedent by LBB and GLA carry no weight.
1.2.10 – 1.2.12	Applicant considers that EA will consider throughput during the determination of the EP process and that the EA will review the capacity of both the ERF and AD plans and constrain them	5. Applicant considers that EA will consider throughput during the determination of the EP process and that the EA will review the capacity of both the ERF and AD plans and constrain them accordingly. Therefore, there is a separate regulatory regime that will cap the waste tonnage throughput, and the NPS is clear that throughput is not a	5-6 The Applicant has included **Requirements 15** and **16** in **dDCO (3.1, Rev 3, REP5-003)** at Deadline 5, which address the GLA's points by including annual limits of tonnes of nitrogen oxides which can be released from the ERF and Anaerobic Digestion plant.

Paragraph	Applicant Comment	GLA Comment	Applicant's Response
	accordingly. Therefore, there is a separate regulatory regime that will cap the waste tonnage throughput, and the NPS is clear that throughput is not a matter for the planning regime. Notwithstanding this the applicant is proposing to introduce a further Requirement.	matter for the planning regime. Notwithstanding this the Applicant is proposing to introduce a further Requirement. 6. The GLA welcomes the proposed additional Requirement in principle; however, cannot comment fully until the wording has been provided at the next deadline. In respect of air quality any new requirement could be aimed at ensuring that the total rate and/or total quantum of emissions do not exceed the parameters set out in the ES, this would be distinct from any ELV in an environmental permit which would only control the concentration of pollutants within the expelled gases.	

3.3 Justification for Air Quality Monitoring

Paragraph	Applicant Comment	GLA Comment	Applicant's Response
1.3.1 – 1.3.9	LBB requests a financial contribution by the Applicant towards monitoring. The Applicant considers that it is not justified, reasonable, necessary or appropriate for REP to make a project specific financial contribution based on DEFRA's Damage Costs Guidance for policy appraisal as suggested by LBB in their D3 submission.	7. LBB requests a financial contribution by the Applicant towards monitoring. The Applicant considers that it is not justified, reasonable, necessary or appropriate for REP to make a project specific financial contribution. The GLA support the principle of boroughs obtaining contributions to their air quality monitoring program through planning obligations.	7. The Applicant has set out at Deadlines 3, 4 and 5 why it is not appropriate or justified for REP to make a project specific financial contribution based on DEFRA's Damage Costs Guidance, including that DEFRA state that the Guidance is to be used in relation to policy appraisal and therefore is not intended to apply to individual projects such as REP. Further information relating to comments on air quality monitoring are contained in the **Applicant's response to Air Quality Matters (8.02.70),** submitted at Deadline 7.
1.3.10 -	The Applicant considers the additional monitoring sought by LBB in paragraph 3.12 of LBB's submission should be considered during the consultation secured in the new requirement to be inserted at Deadline 5, which would also link into the EP conditions to ensure consistency of approach.	8. The Applicant considers the additional monitoring sought by LBB in paragraph 3.12 of LBB's submission should be considered during the consultation secured in the new requirement to be inserted at Deadline 5, which would also link into the Environmental Permit conditions to ensure consistency of approach. 9. The new requirement proposed to consult with Bexley on the siting of any off-site monitoring appears sensible (not least as a separate planning permission may be needed for a new monitoring site). 10. However, there is no case made that this requirement, or any permit condition mandating additional monitoring by the Applicant, would be an effective substitute for the funding requested by Bexley for their own monitoring programme. 11. Furthermore, the actual effect of this requirement in practice would rely entirely on the content of the environmental permit, which is currently unknown. If the permit does not require additional monitoring or requires it to be in Havering the new requirement would do nothing. As such, the GLA support LBB and consider that there should be a formal, upfront commitment to monitoring funding.	8-11. The Applicant has provided a detailed response to comments on air quality monitoring in the **Applicant's response to Air Quality Matters (8.02.70),** submitted at Deadline 7. In summary, the Applicant has inserted a new Requirement (**Requirement 17**) into the **dDCO (3.1, Rev 3, REP5-003)**, which requires the Applicant to prepare an air quality monitoring programme to be submitted to the EA for approval. The inclusion of this requirement ensures that the EA will need to consider the monitoring programme in the context of both the DCO and the Environmental Permit, thereby ensuring consistency between the two. The GLA's and LBB's concerns over emission limits have also been addressed by virtue of **Requirement 15** and **Requirement 16** of **the dDCO (3.1, Rev 3, REP5-003)**. As the Applicant is obliged to carry out monitoring pursuant to **Requirement 17**, so the Applicant will have to fund that monitoring therefore there is no justification for any additional contribution from the Applicant.

3.4 Cap on Transport Movements

Paragraph	Applicant Comment	GLA Comment	Applicant's Response
1.4.1 – 1.4.18	At paragraph 1.4.4 the applicant states that "further arbitrary restriction of 10% of the nominal waste throughput scenario, as proposed by LBB, would be unnecessary, unreasonable and entirely unjustified in relation to any potential environmental effects and would unfairly restrict the commercial operation and opportunities for REP".	12. At paragraph 1.4.4 the Applicant states that "further arbitrary restriction of 10% of the nominal waste throughput scenario, as proposed by LBB, would be unnecessary, unreasonable and entirely unjustified in relation to any potential environmental effects and would unfairly restrict the commercial operation and opportunities for REP" 13. The GLA considers that the 10% restriction is not arbitrary but reflects the practical assessment by LBB that the existing RRRF services Bexley's waste needs and, therefore, a lower percentage of waste to the REP will come from the local area, thereby providing further opportunity for waste to be transported via the river. It should also be noted that as set out by the GLA in this, and previous submissions at Deadline 4 and 3, the Applicant's current restriction on vehicle movements fails to meet 25% of the nominal waste throughput of the REP being brought in by road, which they state is the level that the RRRF currently operates at. 14. In paragraph 2.3.19 of its response to the GLA's Written Representations (document 8.02.14) the Applicant has stated that dDCO restrictions to deliveries by road 'will achieve a modal split strongly in favour of river'. If the Applicant is genuinely of the belief that the majority of feedstock will be sourced by River, it is difficult to understand the objection to a restriction of this kind. 15. Calculations presented by the GLA in its deadline 4 submission, clearly demonstrate that even given compliance with proposed dDCO restrictions on deliveries by road, the totality of ERF feedstock could in fact be catered for road movements. The Applicant has sought to argue that the majority of deliveries will be by river, whilst effectively retaining the option for all waste to be delivered by road. Acceptance of mass percentage cap on road deliveries would demonstrate that the Applicant is genuine in respect of its intention to source a high proportion of feedstock by river.	12-15. Despite there being no policy requirement to respond to concerns and demonstrate the Applicant's commitment to the use of the river, **Requirement 14(2)** of the **dDCO (3.1, Rev 3, REP5-003)** has been amended to include a cap to limit the volume of waste delivered by road to 240,000 tonnes per annum (this covers waste to both the ERF and the Anaerobic Digestion facility), as requested at Deadline 3. TFL has confirmed several times to the Applicant that they do not have any transport related concerns with the operational phase of REP (in its Relevant Representation (see **RR-087**) and at two meetings (9th October 2018 and 31st May 2019) (see **Appendix C** of the **draft Statement of Common Ground between the Applicant and TfL (8.01.10, REP5-012**)). There is no policy justification for further restrictions and GLA fails to provide any evidence to demonstrate why a figure lower than that set out in **Requirement 14 (2)** is justified.
1.4.20 – 1.4.21	The Applicant considers that there is no justification for a Delivery and Servicing Plan to be implemented for the operational phase of REP. The CTMP will provide control during construction.	16. The Applicant considers (paragraphs 1.4.20 - 1.4.21) that there is no justification for a Delivery and Servicing Plan to be implemented for the operational phase of REP, as the CTMP will provide control during construction. 17. LBB's request for a Delivery and Servicing Plan is supported by TfL and is in line with adopted and draft London Plan policy. The purpose of the DSP is to capture all related delivery and servicing activity in a single document and to identify measures to mitigate the impacts of these activities on the network during the operation phase of the development. Additionally, the DSP will set targets (consistent with the capped movements agreed), an action plan for achieving those targets and monitoring arrangements to ensure that the targets are being met.	16-17. .In respect of a Delivery and Servicing Plan, the existing proposed controls through **Requirement 14** of the **dDCO (3.1, Rev 3, REP5-003)** would be sufficient to ensure that the operational vehicle movements at REP do not cause negative transport impacts. Any additional vehicle movements such as back-office delivery and servicing and ancillary ERF/ Anaerobic Digestion vehicle movements would be minimal on a daily basis, as set out within the **Appendix B.1,** the **Transport Assessment** to the **ES** (**6.3, APP-066**) and would not have an impact on the free flow and safety of the highway network or residential amenity. On this basis the Applicant continues to assert that a Delivery and Servicing Plan would be unnecessary given the outcomes of the assessment and the controls contained within the **dDCO (3.1, Rev 3, REP5-003)**. Furthermore, as stated in the **Applicant's Response to the London Borough of Bexley Deadline 5 Submission (8.02.66)**, the efficiencies for implementing a Delivery and Servicing Plan are better suited for sites in central London as opposed to the nature and location of REP. Service deliveries to REP will be very limited in number, and have been assumed to be included in existing movements, such as postal deliveries, or fall within the generally daily fluctuations within movements on the road network. In respect of consumables, the majority would be specialist products which occupy a full load and could not be realistically consolidated, would arrive along main highway routes from their destination and would have no opportunity to access the site other than by road along Norman Road. These are estimated to be around 11 vehicles in and 11 vehicles out per day to each of the ERF and the Anaerobic Digestion facility, as stated at **Paragraphs 5.3.11 and 5.3.15** of **Appendix B.1**, the **Transport Assessment** to the **ES (6.3, APP-066)**.

4 Applicant's Response to Schedule 3

4.1 Introduction

4.1.1 This section provides a response to *"Schedule 3 – GLA's comments on London Borough of Bexley comments on the Applicant's revised draft DCO submitted at Deadline 3"* (**REP5-033**), submitted by the GLA at Deadline 5.

4.1.2 GLA (and TfL with respect to transport matters) have responded to LBB's comments on the following documents within Schedule 3:

- Proposed amendments on the dDCO (see **3.1, Rev 2, REP3-003**);
- Comments on the dDCO (Revision 2) submitted at Deadline 3 (see **3.1, REP3-003**);
- Applicant's response to LBB's Written Representation (see **Section 2.3** of the **Applicants responses to Written Representations** (**8.02.14**, **REP3-022**));
- Post Hearing note on Public Health and Evidence (see **8.02.27**, **REP3-033**);
- Construction Traffic Management Plan (CTMP) (Revision 2) (see **6.3, REP3-010**); and
- Temporary Jetty Outage Review (see **8.02.31, REP3-036**).

4.2 Proposed Amendments to Draft DCO

Item	LBB Comment	GLA Comment	Applicant's Response
Schedule 2 Requirement 13 (1) p.20	LBB is content with the amendments to Requirement 13 to clarify that TfL will be a consultee to the Construction Traffic Management Plan (CTMP) for streets within the LBB.	1. Whilst it is noted that LBB is content with the amendments to Requirements 13 to clarify that TfL will be a consultee on the CTMP, TfL would also expect to be a consultee on the CTMP for streets in other LPA areas and in particular TLRN and SRN.	1. **Requirement 13** of the **dDCO (3.1, REP5-003)** provides that consultation will be undertaken with TfL for streets within the London Borough of Bexley. However, it is for the relevant planning authority to decide whether consultation with TfL is required for streets in their areas.
Schedule 2 Requirement 13 (1) p.20 - 21	Requirement 13 of the draft DCO stipulates that each CTMP shall be approved by the LBB. The LBB considers that each CTMP submitted, for each part of the relevant development, should include software modelling assessments for each phase of construction to ascertain any local impacts that may have an impact on the strategic network and existing HCV movements.	2. TfL considers this to be a reasonable requirement to ensure the use of appropriate traffic modelling applications to assess the impacts of construction traffic on the strategic, as well as the local network, which is largely unknown at this time, and to identify appropriate mitigation that will need to be deployed to address the impacts of the relevant construction phase. It should be noted that TfL has requested the modelling of specified junctions through non-microsimulation modelling.	2. The Applicant reiterates the points made at Deadline 5 that software modelling assessments for each phase of the construction of the Electrical Connection (which is a temporary impact), is not necessary, reasonable, or appropriate. In addition to the assessment work already submitted to the Examination, sophisticated transport modelling of the temporary and transient effects during the peak periods would be complex, expensive, lengthy and would not reliably represent the impacts on the network or inform further management or mitigation than that which has already been committed to by the Applicant and UKPN – as discussed with TfL and Arriva London. Such modelling work would not change the process or programming of the construction works and would not substantiate the need for highly disruptive physical changes to the network to mitigate the temporary effects. The Applicant has engaged with TfL since 2017 through a number of meetings and correspondence against a background of transport assessment scoping in May 2018 and the Preliminary Environmental Information Report in June 2018. During that time the Applicant has duly responded to matters raised by TfL to a point where an acceptable strategy was understood to be derived – through the culmination of supplementary evidence into the likely effects during construction on traffic as explored in technical notes subsequently provided at **Appendices F and G** of the "**Applicant's Responses to Relevant Representations**" **(8.02.03, REP2-054)**. Since that time, during the Examination, the GLA / TfL has sought to expand the focus of the review of effects to include sections of the road network further to the south of James Watt Way – which was the prior extent of TfL's focus. The Applicant has continued to seek to respond to points raised and will continue to do so within reason and proportionate to the likely effects. The construction of the Electrical Connection is a strategically important utility connection to be implemented by UKPN which is a statutory undertaker. The appropriate mitigation for construction impacts for these works, which are no different to statutory utility works that take place every day (and indeed will be undertaken by a statutory utility), has been included in Revision 3 of the **Outline Construction Traffic Management Plan (6.3, REP5-008)**.
Schedule 2, previous Requirement 14(2), and 14(4) p.22 - 25	The ES fails to consider the full capacity of the ERF and RRRF facilities operating during a jetty outage with the HCV movements sought by the Applicant under requirement 14 (2) of Schedule 2 of the draft DCO. The transport assessment presented in the ES is not considered by the LBB to assess the worst case or cumulative transport assessment scenarios that the Applicant seeks to be permitted in the event of a jetty outage under	3. The applicant has undertaken of likely effects during jetty outage conditions. The applicant's Temporary Jetty Review (Technical note 8.02.31) does not present an assessment of the cumulative effects of the REP and RRRF at 100% by road for a 'jetty outage' scenario. The RRRF movements added to the '2028 Do Something Scenario' are for normal operation and not the 100% by road permitted under jetty outage condition. The criteria for the worst case 'jetty outage scenario' are 100% by road for the REP and the same for the RRRF. A further assessment is therefore requirement. This is also set out in the GLA's Schedule 1, submitted for Deadline 5.	3. The Applicant has responded to this point in **Section 2.14** of this document.

Item	LBB Comment	GLA Comment	Applicant's Response
	requirement 14 (2) [worked examples provided]		
Schedule 2, Requirement 14(4) (previously 14(6)) p. 25	LBB requires records to be made available as required (a cap of four requests per year is not acceptable) and records should include details on waste volumes.	4. At paragraph 4.13 of the Deadline 4 document, the GLA provided commentary on this as well and agree with LBB that the cap on the number of requests should be lifted as the wording already states that any request by the LPA would need to be reasonable.	4. The Applicant has removed the cap of a maximum of four requests per year, as reflected in Revision 3 of the **dDCO (3.1, REP5-003).**
Schedule 2, Requirement 14(5)(b) (previously 14(7)(b) p.25 - 26	Definition of jetty outage - at the ISH on 6 June 2019 LBB made representations that there may be a need for two definitions of "jetty outage"; one being up to a four day period being a 'routine' jetty outage (and during which bottom ash would be stored ready to be taken away by river on the resumption of service from the jetty) and a second definition for a longer duration in the event of a more serious outage. The Applicant agreed to consider and propose wording to this effect in its revised draft DCO, however this has not been provided. LBB considers that the proposed definition of "jetty outage" as being for a period of just 48 hours is too short. The LBB consider that the definition should be as per the tracked change version of the draft DCO presented by the LBB at deadline 2 a definition that has been agreed and established under the extant RRRF consent.	5. The GLA concur with LBB.	5. The definition of "*jetty outage"* has been amended to a period of 4 consecutive days, rather than 48 hours, as reflected in Revision 3 of the **dDCO (3.1, REP5-003).**
Schedule 2, Requirement 20(2) p.28	LBB are looking to tighten up the heat study requirements but don't go as far as GLA	6. With regard to the Study Area, it is noted that the DCO (Document 3.1 Rev 2 June 2019) has been amended and includes the following text "as part of a Good Quality CHP scheme (as defined in CHPQA Standard Issue 3) as..". It is unclear why the Applicant makes reference to the CHPQA standard in the context of the CHP review. This reference should be deleted since the CHPQA standards are only relevant to receiving fiscal and other government benefits and have high efficiency thresholds in order to qualify for support. In carrying out the CHP review, the Applicant may use the CHPQA thresholds as justification for not supplying heat when there is a smaller feasible and viable heat load to supply.	6. As noted in the **Applicant's response to comments on the draft Development Consent Order (8.02.54, REP5-025),** the Applicant's insertion of CHPQA into Requirement 20 (now Requirement 26), was at the request of the GLA in its Local Impact Report, which stated that "*The review should provide for ongoing monitoring and full exploration of potential commercial opportunities to use heat from the development as part of a Good Quality CHP scheme (as defined in CHPQA Standard issue 3), and for the provision of subsequent reviews of such opportunities as necessary."* The Applicant's amendment was therefore made at the GLA's recommendation. To address the GLA's concern, the Applicant can confirm that it would not rely on non-achievement of Good Quality status ("CHPQA thresholds"), as accredited by CHPQA, as a justification for not implementing CHP proposals, provided that the commercial case for the scheme remains viable.
Schedule 2, Requirement 20(5) p. 29	LBB would also like to see a CHP review on a two year basis rather than every four years.	7. The GLA agrees with the LBB comment that the CHP review should occur on a 2-year basis, as set out in the GLA's Deadline 4 submission.	7. As set out in the **Applicant's response to comments on the draft Development Consent Order (8.02.54, REP5-025),** the study for the original Bexley Energy Master Plan took 24 months to undertake and therefore a 2 year rolling review would not be justified, especially as the reviews are horizon watching. Therefore, no amendment is made.

4.3 Comments on dDCO submitted at Deadline 3

Item	LBB Comment	GLA Comment	Applicant's Response
Part 2 Article 6 (3)	Proposed removal of ash storage area - the Applicant seeks to remove the ash storage area. The LBB's position is that all bottom ash material from the proposed Energy Recovery Facility (ERF) plant is to be transported by river. This approach accords with the assumptions made by the Applicant in their transport assessment. If the Applicant is confident to remove this storage area that could accommodate empty or full ash containers, which would help manage ash waste in the event of a jetty outage, then LBB considers that the Applicant should be required to ensure that all bottom ash is removed from the REP site via the river.	8. TfL agrees that, in line with the existing RRRF facility and the TA, the REP should commit to transport all bottom ash material via the river. As previously stated by the GLA; the proposed development would be expected to do as well, if not better, than the existing RRRF. This is in accordance with London Plan 6.14, London Plan Policy 6.27, Draft London Plan Policy T2, and Draft London Plan Policy T7.	8. The Applicant is committing to bottom ash being removed via the River save in the event of a jetty outage, which is already secured in **Requirement 14(4)** of the **dDCO (3.1, Rev 3, REP5-003).**
Schedule 1 p.31	Cap on throughput capacity is required in line with ES assessment.	9. The GLA concurs with LBB	9. The Applicant has amended the **dDCO (3.1, Rev 3, REP5-003)** to include Requirements on road vehicles including a cap on the amount of waste to be transported via road, noise, air quality emissions from the ERF, air quality emissions from the Anaerobic Digestion plant with abatement technology, air quality monitoring, fuel type, and a phasing programme for construction and commissioning of Work Number 1. By having these restrictions, the development will not exceed the parameters assessed in the Environmental Statement and therefore a cap on waste tonnage is not justified. The applicant has responded to LBB on this point in the **Applicant's response to London Borough of Bexley Deadline 5 Submission (8.02.66).**
Schedule 2 Requirement 20 p.32	At the ISH on 6 June 2019 LBB made representations in relation to Requirement 20 (7) that this paragraph is removed because the provision removes the obligation on the applicant to carry out any further CHP reviews in the event that any CHP is exported from the plant. Such wording could lead to a situation in which the requirement to carry out a further review would fall away in situations where only a small proportion of heat export is achieved or that export of heat is commenced and then ceases.	10. The GLA supports the point made by LBB.	10. **Sub-paragraph (3)(a)** of **Requirement 26** of the **dDCO (3.1, Rev 3, REP5-003)** requires the CHP review to assess potential commercial opportunities that exist for heat to be exported "*as part of a Good Quality CHP scheme (as defined in CHPQA Standard Issue 3)*". The CHPQA programme is an energy efficiency best practice programme initiative by the Government which aims to improve the quality and maximise the benefits of CHP in the UK. The working group will therefore be looking at developing CHP proposals as Good Quality (as accredited by CHPQA), and/or continuing to increase heat export capacity until this threshold, and thus the Government's best practice standard, is achieved. The working group then lists the actions that the undertaker is to take having regard to the assessment that the working group has carried out. Pursuant to **Requirement 26(4)** of the **dDCO (3.1, Rev 3, REP5-003)**, the undertaker must then undertake such actions. In response to the scenario wherein export of heat is commenced and then ceases, this would be extremely unlikely to arise for the following reasons. Export of heat would require significant capital outlay by the Applicant and for the Applicant to enter into heat supply agreement(s) with third parties. It would therefore be commercially damaging for the Applicant to cease export of heat once this activity had commenced. Therefore, in making an investment in the Proposed Development, including heat export infrastructure, the Applicant would require relative certainty that the revenue associated with the heat export system would be secure in the long term, such that a sound business case is realised. Furthermore, continued of export heat would rely on third party heat demand to remain in existence. The Applicant should not be required to continue to export heat where events outside of its control could lead to the fall away of heat demand.

4.4 Applicant's Response to LBB's Written Representation

Item	LBB Comment	GLA Comment	Applicant's Response
2.3.13 waste need and capacity p.33	The Applicant acknowledges that the assessment undertaken in the ES as set out in the Waste Strategy Assessment (Annex A of the Project Benefits Report) does not consider the upper level of the proposed ERF plant of 805,920 tpa but has instead only considered the nominal throughput level of 655,000 tpa. The LBB consider that the capacity of the ERF should be based on the assessments undertaken in the ES and as such question why this assessment has not been undertaken and presented in the ES	11. GLA modelling clearly demonstrates that, even given an annual ERF capacity of 655 kt, the residual waste feedstock requirement of REP is in excess of London's requirements, after improvements in recycling are accounted for. At an upper input requirement of 806 ktpa, this situation is exacerbated, increasing the likelihood that the REP ERF negatively impacts London's recycling performance. 12. Given the track record in underestimation of incinerator throughput at the existing Riverside incinerator (as well as other examples including incinerators at Lakeside and Runcorn) it appears highly plausible that the REP ERF will ultimately operate at the upper throughput level.	11. The GLA modelling does not clearly demonstrate this outcome. Not least as is set out in **Section 2.2** of this document, the Applicant has demonstrated that the GLA's modelling is not clear or transparent, or entirely correct. The Applicant has demonstrated that applying all of the GLA's assumptions a need remains for 250,000 tonnes of residual waste treatment capacity, not 90,000 as stated in Table 2 of Appendix 2A as submitted by the GLA at Deadline 3 (see **REP3-039**). In addition to which, the assumptions applied by the GLA are not clearly explained, seek a 'spurious' level of precision and are based on out of date forecasts. By contrast, the Applicant has demonstrated that even applying the GLA's assumption, about the suitability of residual wastes for REP, such that it is assumed that only 80% of <u>all</u> residual wastes (c.900,000) are suitable for combustion, there remains a need for new residual waste treatment of c.700,000 tonnes. To confirm, the need for c. 900 000 tpa residual waste capacity identified by the Applicant assumes that all GLA waste reduction and recycling targets are achieved. REP will not compromise London's recycling ambitions. However, the Applicant has proposed **Requirement 18** in the **dDCO (3.1, Rev 3, REP5-003)** which would require the Applicant to prepare a scheme setting out arrangements for maintenance of the waste hierarchy and it is considered that this would address the GLA's concerns. 12. The situation at RRRF is different to the situation at REP. The design waste NCV for RRRF was 11 MJ/kg, because it was anticipated that the input waste would have this higher NCV. In the event, the actual waste has had a lower NCV, which has increased the annual throughput. The design waste for REP has an NCV of 9 MJ/kg, which is lower than the current waste. The waste compositions considered in the **Carbon Assessment (8.02.08, REP2-059)** show that the NCV remains above 9 MJ/kg even in the unrealistic scenario where food waste is reduced but plastics are not reduced at all.
2.3.43 p. 33	LBB maintains its request for the Applicant to assess the number of properties at which the impact of nickel emissions would be minor, so that a proper judgment of effects can be made in accordance with the relevant guidance. This matter was also raised by ExA as Question 2.0.10. LBB agrees with the GLA's views that the Applicant's response to Question 2.0.10 misses the point of the question.	13. The GLA wholly support LBBs position here, as set out in the GLA's comments on Applicant's response to LBB, also submitted for Deadline 5.	13. The Applicant provides a detailed response to LBB's concern at **Paragraph 1.2.8** of **the Applicant's Response to the London Borough of Bexley Deadline 4 Submission (8.02.51, REP5-022)**. In summary, the Applicant disagrees and contends that the assessment of nickel concentrations has been undertaken in accordance with the assessment methodology set out in **Paragraph 7.5.62** of **Chapter 7 – Air Quality of the ES (6.1, REP2-019)** and no significant effects have been identified. More information on this point is provided in **Applicant's response to Air Quality Matters (8.02.70**).
2.3.44 p.34	Excluding an assessment of short-term nitrogen dioxide and sulphur dioxide levels in this way leaves a gap in the assessment of impacts: no ES significance criteria have been applied to these short term impacts. LBB maintains its request for the Applicant to provide an assessment of short term impacts in accordance with the relevant guidance.	14. The GLA agree with LBB that these results should be reported and considered.	14. The Applicant provides a detailed response to LBB's concern at **Paragraphs 1.2.9-1.1.20** of **the Applicant's Response to the London Borough of Bexley Deadline 4 Submission (8.02.51, REP5-022)**. In summary, the Applicant disagrees with the LBB as to the validity of applying short-term significance criteria to the results of a modelling scenario that has been undertaken for a different reason, and which cannot occur in practice. The consideration of the impacts of emissions occurring over half-hourly periods is undertaken so as to assess whether or not these emission rates could cause a breach of the short-term objective, not to assess the significance of the impact of emissions from the development on short-term assessment levels.

Item	LBB Comment	GLA Comment	Applicant's Response
			The Applicant also disagrees with the LBB that there is a gap in the assessment of short-term impacts; the potential impact of short-term emissions has been assessed for emissions from the ERF under normal operation where the emissions comply with the daily emission limits set out in **Table 7.17** of **Chapter 7 Air Quality (6.1, REP2-019)** in accordance with the relevant IAQM guidance. The results of this assessment are shown in **Table 7.34** of **Chapter 7 Air Quality (6.1, REP2-019)** where all of the predicted short-term impacts (including those of nitrogen dioxide and sulphur dioxide) are not significant at the point of maximum predicted concentration from the ERF.
Appendix D proposed new LBB requirement 11A for AQ monitoring p.35	LBB notes that "the GLA support Bexley's request for funding for monitoring" ("GLA Sheet 3 Relevant LIR and WR Responses" page 7). GLA noted that its statutory guidance recommends that s106 agreements should be used to secure funding for monitoring. This may affect how this issue is dealt with through the DCO process (for the present, LBB has proposed a Requirement in relation to this matter).	15. The GLA has considered this point within the Applicant's response to LBB, also submitted for Deadline 5.	15. The Applicant has inserted a new Requirement into the **dDCO (3.1, Rev 3. REP5-003)** which provides for the Applicant to prepare an air quality monitoring programme, which must also meet the requirements of any air quality monitoring condition on the Environmental Permit for the REP. It should also be noted that the air quality financial contribution that the operator of RRRF makes to the LBB to support monitoring is not under the RRRF planning permission or secured through a section 106 agreement, rather the financial contribution arose out of the Applicant's obligations pursuant to an Environment Agency condition on the RRRF Environmental Permit and is secured via a bilateral contract between LBB and the operator of RRRF (not under the Town and Country Planning Act 1990). CRE have requested a meeting with LBB to discuss the scope and implementation of the ambient air quality modelling. The **Applicant's response to Air Quality Matters (8.02.70**) submitted at Deadline 7 provides information relating to the Applicant's commitment to an ambient air quality monitoring programme.

4.5 Post Hearing Note on Public Health and Evidence

Item	LBB Comment	GLA Comment	Applicant's Response
p.38	The findings of this post-hearing note relate to the risks to health posed specifically by waste to energy plants. The findings do not cast any doubt on the damage costs associated with air pollutants in general, and do not undermine the case being made by LBB for support for an air quality monitoring programme, on the basis of the established damage costs associated with emissions of oxides of nitrogen and fine particulate matter.	16. The GLA has considered this point within the Applicant's response to LBB, also submitted for Deadline 5.	16. The Applicant agrees that the **Post Hearing Note on Public Health and Evidence (8.02.27, REP3-033)** does not relate to damage costs for air pollutants in general. The **Applicant's response to Air Quality Matters (8.02.70**) submitted at Deadline 7 provides information relating to the Applicant's commitment to an ambient air quality monitoring programme.

4.6 Appendix L to B1 – Outline CTMP (Rev 2)

Item	LBB Comment	GLA Comment	Applicant's Response
p.38-39	Construction impacts are largely unknown without detailed assessment of CTMPs. In particular, the cumulative impacts of the construction of the electrical connection with associated lane closures. The CTMP therefore, once detailed should be subject to further modelling analysis to quantify network impacts. This can only be realised once detailed CTMPs are devised.	17. TfL concurs with LBB, because the construction impacts of the REP, on its own, and the potential cumulative construction impacts of the REP and electrical connection are unknown, it is reasonable to seek assurances that the impacts will be assessed using appropriate modelling approaches.	17. The Applicant reiterates the points made at Deadline 5 that software modelling assessments for each phase of the construction of the Electrical Connection (which is a temporary impact), would not be appropriate or proportionate. A full response to this point is made above in response to "*Schedule 2 Requirement 13 (1) p.20 – 21*" of the GLA's submission. The appropriate mitigation for construction impacts for these works, which are no different to statutory utility works that take place every day (and indeed will be undertaken by a statutory utility), has been included in Revision 3 of the **Outline Construction Traffic Management Plan (6.3, REP5-008).**

4.7 Temporary Jetty Outage Review (8.02.31)

Item	LBB Comment	GLA Comment	Applicant's Response
p.39-40	Table 3.1 contained in the Temporary Jetty Outage Review report states that a situation where both the existing RRRF and the proposed REP were operating at the proposed capped level of 300 one-way HCV movements for waste inputs during a jetty outage, the one-way HCV movements would be 671 HCV movements (339+332). This would equate to 1,342 total HCV movements during a jetty outage. This being a level almost 70% greater than that assessed in the ES. The LBB consider that the maximum permitted level of traffic movements allowed from the proposed development should not exceed the worst-case scenario assessed within the ES submitted in support of the application. Further, the transport assessment has assumed a flat rate of delivery of waste across each 24 hour period. Such an assumption is not considered by LBB to be realistic unless hourly restrictions are placed on the operator.	18. TfL agrees with LBB that an assumption of a flat rate for waste delivery across each 24 hour period is not realistic. The counts for the RRRF suggests that that the movements for the AM peak could be as much as 10% of total generated movement or 65 inbound and 65 outbound movements for the REP and RRPF combined.	18. The flat profile used within the assessment of traffic effects is an approximation of the profile of movements to and from the REP site and reflects the need for even and effective handling of waste deliveries within the facility. Within reason due to a number of external factors – such as collection times changing or wider road network performance - this profile will vary over time. Sensitivity analysis of the local road network has shown that there would be ample spare theoretical capacity for a peaked arrival and departure profile and this would not change the conclusions of the assessments provided in **Chapter 6 Transport** of the **ES (6.1, REP2-017)** and **Appendix B.1**, the **Transport Assessment** to the **ES (6.3, APP-066)**. It should be noted that TfL confirmed in its Relevant Representation (see **RR-087**) and at two meetings (9th October 2018 and 31st May 2019) that they had no objection relating to the operational phase of the development. Nevertheless, the Applicant has provided a detailed response to this matter in **Section 1.7** of **the Applicant's Response to the London Borough of Bexley Deadline 4 Submission (8.02.51, REP5-022)** which concluded that there is sufficient capacity in the adjoining network for a more peaked profile.

5 Applicant's Response to Schedule 4

5.1 Introduction

5.1.1 This section provides a response to *"Schedule 4 – GLA comments on new relevant documents submitted by the Applicant"* (**REP5-034**), submitted by the GLA at Deadline 5.

5.1.2 GLA (and TfL with respect to transport matters) have commented on the following documents within Schedule 4:

- Analysis of Metropolitan Open Land (MOL) in respect of the Proposed Development (see **8.02.41, REP4-020**); and
- Anaerobic Digestion Facility Emissions Mitigation Note (see **8.02.42, REP4-021**).

5.2 Analysis of Metropolitan Open Land (8.02.41)

Paragraph/ Section	Applicant Comment	GLA Comment	Applicant's Response
1.1.1	Document prepared in response to a request by the ExA for the Applicant to provide a view on the weight to be attached to the inclusion of Metropolitan Open Land ("MOL") in the site. i.e the question is whether MOL has the same status as Green Belt with regard to an NSIP project; it would only have such status if the London Plan (Policy 7.17) and the Draft London Plan (Policy G3) that MOL should be treated as Green Belt apply.	1. This document was prepared in response to a request by the ExA for the Applicant to provide a view on the weight to be attached to the inclusion of Metropolitan Open Land ("MOL") in the site. i.e the question is whether MOL has the same status as Green Belt with regard to an NSIP project; it would only have such status if the London Plan (Policy 7.17) and the Draft London Plan (Policy G3) that MOL should be treated as Green Belt apply. 2. London Plan Policy 7.17 and draft London Plan Policy G3 are clear that MOL has the same level of protection as Green Belt, as enshrined within the NPPF. In this regard, the GLA would concur with paragraph 5.10.17 of the NPS which states that works on the MOL would comprise 'inappropriate development', as defined within the NPPF. In that regard, the GLA consider that the policies, seeking to preserve the openness and character of the MOL and set out within the London Plan, draft London Plan and MOL, are given due regard as the MOL is considered to be of equal weight as Green Belt for the purposes of determining NSIP applications.	The Applicant's position is clearly set out in section 1.3 of its MOL Analysis. Pursuant to section 104(3) of the Planning Act 2008, the National Policy Statements ("NPS"), and the tests within them, take precedence in the decision-making process in respect of development consent for a Nationally Significant Infrastructure Project ("NSIPs"). The primary policy contained within NPS EN-1 only affords policy protection to the Green Belt - section 5.10 of NPS EN-1. Accordingly, the primary policy of NPS EN-1, does not provide any policy protection to Metropolitan Open Land ("MOL"). This is not debatable. Only if the Secretary of State considers that the policies in the London Plan are both important and relevant is the Secretary of State required to have regard to the policies in the London Plan (section 104(2) of the Planning Act 2008). This is a decision for the Secretary of State. Should the Secretary of State consider that the London Plan is both an important and relevant consideration in deciding the Application, then the Applicant's position is that the NPPF, in aiding the interpretation of policy in the London Plan, should also be an important and relevant consideration in deciding the Application. Should the Secretary of State follow the London Plan and treat MOL as Green Belt, then the correct tests to assess the Application against are not the ones in the London Plan or the NPPF, but the ones in section 5.10 of NPS EN-1. Paragraph 144 of the NPPF is therefore not relevant in the consideration of the Application. Paragraph 5.10.17 of NPS EN-1 applies to those elements of the Proposed Development identified in Table 1.2 of the Applicant's MOL Analysis. As the Applicant's MOL Analysis sets out, none of these elements are "inappropriate development." Furthermore, none of these works will have an adverse impact on the MOL, and thus there is no "any other harm" by virtue of that "appropriate development." Accordingly, paragraph 5.10.17 is not triggered. This is further explained in the comments on the MOL Analysis in the **Applicant's response to Thames Water Utilities Limited Deadline 5 Submission** submitted at Deadline 7 (**8.02.65**),

5.3 Anaerobic Digestion Facility Emissions Mitigation Note (8.02.42)

Paragraph/ Section	Applicant Comment	GLA Comment	Applicant's Response
1.1.3	Since the DCO Application was submitted, the Applicant has made a commitment to invest in enhanced NOx abatement equipment through the implementation of a selective catalytic reduction (SCR) system on the CHP engine. This enhanced mitigation will reduce the NOx emissions associated with the Anaerobic Digestion CHP engine. In this report the Applicant considers the consequences of that improved mitigation performance on the air quality assessment undertaken as part of the ES	3. Since the DCO Application was submitted, the Applicant has made a commitment to invest in enhanced NOx abatement equipment through the implementation of a selective catalytic reduction (SCR) system on the CHP engine. This enhanced mitigation will reduce the NOx emissions associated with the Anaerobic Digestion CHP engine. In this report the Applicant considers the consequences of that improved mitigation performance on the air quality assessment undertaken as part of the ES. 4. The GLA has repeatedly stressed (for example in its Further Representations Deadline 4, paragraph 3.9) that on-site combustion of the biogas produced by the anaerobic digestion plant should not be the preferred option for reasons of both air quality and maximising low carbon generation performance and, despite appearing to agree, the Applicant has continued to pursue options for on-site combustion to the exclusion of other options. The rationale, that there are potential problems to solve or negotiations to be had with third parties, is insufficient to reassure us that on-site combustion is the only remaining option. 5. The pursuit of an environmental permit encompassing on-site combustion of the AD gas, and the additional commitment to expensive SCR equipment to secure the permit suggests that there is no real commitment from the operator to explore other options. 6. That said, the additional reduction of emissions, if the on-site combustion is pursued, is considered to be acceptable if this use of the gas is demonstrably unavoidable.	3-6. As set out in **Paragraph 4.1.3** of **the Anaerobic Digestion Facility Emissions Mitigation Note (8.02.42, Rev 1)**, the impact of adopting SCR technology "*has been robustly assessed by the Applicant and the revised assessment concludes that impacts on human health exposure are negligible, and impacts on terrestrial biodiversity are insignificant".* On this basis, there is no detrimental effect on air quality and this reason cannot be used to detract from the CHP engine scenario. Regarding maximising low carbon generation performance, a high efficiency CHP engine has been proposed to generate both power and heat, such that low carbon generation performance would be maximised. As set out in **Paragraph 3.7.8** of **the Applicant's Response to the GLA Deadline 4 Submission (8.02.46, REP5-017)**, the Applicant has engaged with the local gas network operator to undertake further analysis into the viability of supplying biomethane into the local gas grid. To this end, the Applicant has included in the **dDCO (3.1, Rev 3, REP5-003)**, a Requirement that obliges the Applicant to review the opportunities for exporting gas to the grid. As such, it is not correct that there is no real commitment to explore other options, as the requirement to do so is included within the **dDCO (3.1, Rev 3, REP5-003)**. By virtue of generating wholly renewable and low carbon energy from food and green waste, all of the biogas utilisation options proposed are supported by policy, in particular Overarching National Policy Statement for Energy (NPS EN-1), National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) and the adopted and draft London Plan, while contributing to London Environment Strategy objectives. The associated benefits are secured though implementation of the Anaerobic Digestion facility under Work No. 1B with provision for all options. The fact that the Applicant is committed to minimising environmental impacts resulting from the CHP engine scenario should attract positive weight and the Applicant welcomes the GLA's comment that if on-site combustion is pursued, the additional reduction of emissions is considered to be acceptable if this use of the gas is demonstrably unavoidable. To note, the Applicant has submitted an update to **the Anaerobic Digestion Facility Emissions Mitigation Note (8.02.42, Rev 1)** at Deadline 7.
3.3.2	The Applicant has been advised by the EA that they will be issuing a Schedule 5 Request which will request that the Applicant further reviews the impact of REP upon the Crossness Nature Reserve.	7. At paragraph 3.3.2 of document 8.02.42 the Applicant notes it has been advised by the EA that they will be issuing a Schedule 5 Request which will request that the Applicant further reviews the impact of REP upon the Crossness Nature Reserve. 8. The response to the expected Schedule 5 request is likely to contain information that is relevant to the DCO decision, particularly as various parties, including the GLA, have raised concerns about the effects of the proposed development on Crossness Nature Reserve and the potential increase in ammonia emissions described in the note. 9. Any response to the EA schedule 5 request should be shared with the examining authority and other parties.	7-9. The Applicant provided a response to the Schedule 5 request to the Environment Agency on 16th August 2019. The permit application, including the Schedule 5 response, can be requested from the EA. The Schedule 5 response does not form part of the DCO Application, rather it forms part of the environmental permit application which is currently being determined by the EA.

Paragraph/ Section	Applicant Comment	GLA Comment	Applicant's Response
4.1.6	The commitment with regard to AD emissions commitment will be secured through the introduction of a new requirement in the dDCO to be submitted at Deadline 5 and will also be secured by the EP.	10. At paragraph 4.1.6, the Applicant states that its proposed commitment with regard to AD emissions will be secured through the introduction of a new requirement in the dDCO to be submitted at Deadline 5 and will also be secured by the environmental permit. 11. It is not clear what type of commitment is envisaged in the revised dDCO and how this could functionally differ from the kinds of commitment to emissions control that the GLA have requested for the main ERF. 12. Clearly, if the Applicant is proposing that a DCO requirement is necessary to secure abatement of the much smaller impacts of the AD emissions, then the GLA would expect to see it accept similar commitments for the ERF.	10-12. As set out in **the Applicant's response to comments on the draft Development Consent Order (8.02.54, REP5-025),** the Applicant has inserted a new Requirement as reflected in the **dDCO (3.1, Rev 3, REP5-003)** to commit to an average daily emission limit value and an annual emission limit value for nitrogen oxide and nitrogen dioxide for the ERF (**Requirement 15**). A new emissions Requirement has also been inserted in respect of the Anaerobic Digestion plant, which restricts the average emission limit value and annual emission limit value for nitrogen oxide and nitrogen dioxide (**Requirement 16**). This incorporates the Applicant's proposed investment in NOx abatement to respond to and abate the potentially significant impacts relating to NOx on the Crossness Nature Reserve.

6 Applicant's Response to Schedule 5

6.1 Introduction

6.1.1 This section provides a response to *"Schedule 5 – GLA response to ExA's second written questions"* (**REP6-008**), submitted by the GLA at Deadline 6.

6.2 ExA Written Question Reference Q2.1.2

ExQ2	Question	GLA Comment	Applicant's Response
2.1.2	Please will the GLA, to the extent that this is not already in hand for Deadline 5, provide comments on the submission from the Applicant received at Deadline 4, titled 'Applicants response to the GLA at Deadline 3 submission' [REP4-014].	Please refer to the GLA's Schedule 1, titled GLA response to Applicant document 8.02.35, "Applicant Response to the GLA's Deadline 3 Submissions" which was submitted for Deadline 5.	The Applicant has provided a detailed response to the GLA's Schedule 1 – *GLA response to Applicant document 8.02.35, "Applicant Response to the GLA's Deadline 3 Submissions"* (**REP5-031**) at **Section 2** of this document. Further information relating to comments on Air Quality from the GLA, as well as other interested parties, are contained in a single submission document, titled the **Applicant's response to Air Quality Matters (8.02.70),** submitted at Deadline 7.

6.3 ExA Written Question Reference Q2.1.3

ExQ2	Question	Applicant Comment	GLA Comment	Applicant's Response
2.1.3	Please will the GLA comment on the Applicant's additional clarification provided in REP4-014 on modelled concentrations of NO2 at James Watt Way.	In REP4-014 the Applicant's response to written question Q2.0.4 is at Table D8 on Row 2 it states: "the GLA has not quoted which is the "most affected receptor on the transport network", however the Applicant has assumed, based on a comment in the GLA's Written Representation (see REP2-071), that the GLA is referring to the residential property on the east side of the A206 Queens Road at its junction with James Watt Way. In order to assess the potential impact of road traffic at this location modelling of the impact of road traffic emissions has been undertaken. A receptor location at the ground floor level of 16-72, James Watt Way has been used. The ADMS Roads model has been updated to include this receptor (grid reference 551496.6, 177717.5) and the additional road links within 200m as follows: • Queens Road north and south of James Watt Way; • James Watt Way; • Erith High Street; Manor Road. In order to simulate queuing traffic at the junction, vehicle speeds were reduced for 50m either side of the junction on the A206 and for the complete length of James Watt Way to the roundabout. This is likely to overpredict concentrations as queuing traffic is unlikely to be continuously present on all links to this extent. The modelled NO2 concentration at this receptor has been determined using the same approach as presented in the ES (i.e. same Emission Factor Toolkit and verification process) assuming that operational HGV movements are capped as per the requirement in the draft DCO. The predicted 2024 'Do Something' NO2 concentration at the additional receptor location is 42.0 µg/m3 with an increase of 0.1 µg/m3 (0.25% of the objective) when compared to the 2024 'Do Minimum' scenario. The impact at this receptor is therefore described as 'negligible' in accordance with Table 7.21 of Chapter 7- Air Quality of the ES (6.1, REP2-019)."	1. The ExA has specifically asked for comment on this section of the Applicant's response in ExQ2 section 2.1.3: 2. The receptor chosen is an appropriate choice to represent the worst case on this section of road. 3. The figures for the impact on local air quality presented in the table are higher than the impact predicted at receptors 24 and 25 in the original ES. 4. The underlined section to the left states that the HGV numbers used in this supplementary assessment were capped in line with the draft DCO requirement. However, the original ES used uncapped vehicle movements to represent 100% delivery by road. 5. It therefore appears that this supplementary figure may have been calculated on a different basis. This is particularly important in light of the ExA question Q2.0.4 which considers construction movements: as the daily number of construction movements are predicted to be less than the 100% delivery by road case used for the original ES modelling the GLA had previously been content to accept that the impact of construction journeys would be acceptable if operational movements were considered acceptable. 6. If the revised figures presented in the table are on a different basis then this assumption does not hold. 7. For the avoidance of doubt, and to enable the applicant to describe more clearly how the modelling has been updated we would recommend that a revised ES chapter, with the additional receptor and new assumptions about queueing included, is submitted.	2. The Applicant welcomes the GLA's comment that the residential property on the east side of the A206 Queens Road at its junction with James Watt Way is an appropriate choice to represent the worst case on this section of road. 3-7. The Applicant's response to the GLA's comments 3 to 7 are set out in the **Applicant's response to Air Quality Matters (8.02.70)** submitted at Deadline 7.

Appendix A Sequestration Rate for carbon assessment

1.1 Introduction

1.1.1 In calculating the relative carbon impact of processing residual waste at REP compared to sending the same waste to landfill, an assumption for the sequestration rate must be made. The sequestration rate represents the proportion of biogenic carbon within the waste which does not convert to landfill gas when waste is sent to landfill.

1.1.2 The GLA, in paragraph 55 of **GLA response to Applicant document 8.02.35 "Applicant's response to the GLA's Deadline 3 Submissions" (REP5-031)** has asked for more details of the derivation of the sequestration rate. This note responds to this question.

1.2 Purpose of this Note

1.2.1 The purpose of this note is to demonstrate that the assumed sequestration rate for biogenic carbon in landfill of 50% was conservative, by calculating the sequestration rate for the waste compositions used and described in **Paragraph 3.1.4** of the **Carbon Assessment (8.02.08, REP2-059)**.

1.2.2 This note demonstrates that the sequestration rate in all scenarios is less than 50%.

1.3 Results

1.3.1 **Tables 2.1** to **2.4** show the calculation of the sequestration rate for all four of the waste compositions considered in the **Carbon Assessment (8.02.08, REP2-059)** for REP, which was submitted into the Examination at Deadline 2. The stages of the calculation are as follows.

a. Column 2 shows the fraction of the waste which is made up of each waste fraction.

b. Column 3 shows the percentage by mass of each waste fraction which is carbon. Columns 2 and 3 can be multiplied together to give the percentage by mass of carbon of the entire waste.

c. Column 4 shows the percentage by mass of each waste fraction which is carbon derived from biogenic sources.

d. Columns 2 and 4 can be multiplied together to give the percentage by mass of biocarbon of the entire waste.

e. Column 5 shows the degradable dissolvable organic carbon (DDOC) of each waste fraction, which is the mass of carbon in each waste fraction which will convert to landfill gas. These numbers are the default MelMod figures taken from Table 23 of "*Review of Landfill Methane Emissions Modelling*" (referred to as the Landfill Emissions Modelling report in the Carbon Assessment), published by Golders Associates (Golders) for DEFRA in November 2014. (The GLA stated in **Paragraph 45** of the **Post Hearing Written Submission of Oral Case (REP3-038)** that "The emission factors used in developing the Mayor's EPS and CIF were taken from Government's MELMOD model.").

f. Columns 2 and 5 can be multiplied together to give the DDOC for the entire waste.

g. The result from sub-paragraph 1.3.1(f) divided by the result from sub-paragraph 1.3.1(d) gives the percentage of biocarbon in the waste which will convert to landfill gas.

h. 1 minus the result from sub-paragraph 1.3.1(g) gives the percentage of biocarbon in the waste which will not convert to landfill gas, which is the sequestration rate.

Table 2.1: Calculation of Sequestration Rate for RRRF Waste

Parameter	Fraction of Waste	%Carbon	%Biocarbon	DDOC
Waste Fraction:				
Paper/Card	27.83%	31.87	31.87	16.11
Plastic Film	8.51%	47.81	0.00	0.00
Dense Plastic	7.77%	54.83	0.00	0.00
Textiles	3.43%	39.86	19.93	6.67
Combustibles	9.55%	38.40	19.20	11.00
Non-combustibles	5.39%	6.99	0.00	0.00
Glass	4.52%	0.28	0.00	0.00
Putrescibles	26.44%	14.08	14.08	8.72
Ferrous Metal	1.58%	0.00	0.00	0.00
Non-Ferrous Metal	1.00%	0.00	0.00	0.00
Fines	2.77%	13.75	6.87	6.35
Hazardous	1.21%	0.00	0.00	0.00
Total	100.00%	26.72	15.30	8.25
Biocarbon as % Carbon			57.25%	
DDOC as % Biocarbon				53.90%
Sequestration rate				46.10%

Table 2.2: Calculation of Sequestration Rate for Design Waste

Parameter	Fraction of Waste	%Carbon	%Biocarbon	DDOC
Waste Fraction:				
Paper/Card	29.58%	31.87	31.87	16.11
Plastic Film	5.75%	47.81	0.00	0.00
Dense Plastic	5.25%	54.83	0.00	0.00
Textiles	3.65%	39.86	19.93	6.67
Combustibles	10.15%	38.40	19.20	11.00
Non-combustibles	5.73%	6.99	0.00	0.00
Glass	4.81%	0.28	0.00	0.00
Putrescibles	28.11%	14.08	14.08	8.72
Ferrous Metal	1.68%	0.00	0.00	0.00
Non-Ferrous Metal	1.06%	0.00	0.00	0.00
Fines	2.94%	13.75	6.87	6.35
Hazardous	1.29%	0.00	0.00	0.00
Total	100.00%	26.72	15.30	8.25
Biocarbon as % Carbon			64.58%	
DDOC as % Biocarbon				53.90%
Sequestration rate				46.10%

Table 2.3: Calculation of Sequestration Rate for Reduced Food Waste

Parameter	Fraction of Waste	%Carbon	%Biocarbon	DDOC
Waste Fraction:				
Paper/Card	32.07%	31.87	31.87	16.11
Plastic Film	9.81%	47.81	0.00	0.00
Dense Plastic	8.95%	54.83	0.00	0.00
Textiles	3.95%	39.86	19.93	6.67
Combustibles	11.00%	38.40	19.20	11.00
Non-combustibles	6.21%	6.99	0.00	0.00
Glass	5.21%	0.28	0.00	0.00
Putrescibles	15.23%	14.08	14.08	8.72
Ferrous Metal	1.82%	0.00	0.00	0.00
Non-Ferrous Metal	1.15%	0.00	0.00	0.00
Fines	3.19%	13.75	6.87	6.35
Hazardous	1.39%	0.00	0.00	0.00
Total	100.00%	26.72	15.30	8.25
Biocarbon as % Carbon			54.05%	
DDOC as % Biocarbon				52.78%
Sequestration rate				47.22%

Table 2.4: Calculation of Sequestration Rate for Future Waste (reduced food and plastic)

Parameter	Fraction of Waste	%Carbon	%Biocarbon	DDOC
Waste Fraction:				
Paper/Card	35.62%	31.87	31.87	16.11
Plastic Film	5.45%	47.81	0.00	0.00
Dense Plastic	4.97%	54.83	0.00	0.00
Textiles	4.39%	39.86	19.93	6.67
Combustibles	12.22%	38.40	19.20	11.00
Non-combustibles	6.90%	6.99	0.00	0.00
Glass	5.79%	0.28	0.00	0.00
Putrescibles	16.92%	14.08	14.08	8.72
Ferrous Metal	1.62%	0.00	0.00	0.00
Non-Ferrous Metal	1.02%	0.00	0.00	0.00
Fines	3.55%	13.75	6.87	6.35
Hazardous	1.55%	0.00	0.00	0.00
Total	100.00%	26.72	15.30	8.25
Biocarbon as % Carbon			64.92%	
DDOC as % Biocarbon				52.78%
Sequestration rate				47.22%

1.3.2 In conclusion, it can be seen that the sequestration rate in each case is less than 50%, confirming that the sequestration rate used in the carbon assessment was conservative.