Schedule 1 - Deadline 5 - GLA response to Applicant document 8.02.35 "Applicant Response to the GLA's Deadline 3 Submissions"

Section	Item	Applicant comment	GLA Comment
2.1 Projections of Volumes of Waste Available	2.1.4 – 2.1.22		 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. 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'. 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). 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. Likewise, comments in paragraph 2.1.5 and 2.1.6 of document 8.02.35 do not appear to acknowledge the details provided b

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			 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 The Applicant also refers in paragraph 2.1.7 to the use of commercial and industrial (C&I) waste data which is 'out of date'.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 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.

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Section	Item	Applicant comment	 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).

¹ https://www.tolvik.com/wp-content/uploads/2019/05/Tolvik-Full-Report-2018-Residual-Waste-in-London-and-the-South-East.pdf

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			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 terms.
	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).
	2.1.25	Paragraph 2.1.25 refers to Tolvik as 'the Government's adviser in	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

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		its preparation of the Resources and Waste Strategy'.	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.
	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.
3.1 Waste Hierarchy	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.

² https://www.tolvik.com/wp-content/uploads/2019/05/Tolvik-Full-Report-2018-Residual-Waste-in-London-and-the-South-East.pdf

³ https://www.mrw.co.uk/latest/research-finds-uk-faces-efw-shortage-despite-waste-strategy/10040677.article

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	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;

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⁴ https://consult.environment-agency.gov.uk/psc/da17-6jy-cory-environmental-holdings-limited/supporting_documents/S238303200004NP%20Supporting%20Information%20v4%20clean.pdf

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	3.1.24	"However, the Applicant	 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. 24. The GLA welcomes this concession in principle, though wording of any requirement would be critical. This is particularly the case given that, as
	J.1.24	notes the GLA's concern on this matter. Whilst the 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."	demonstrated above, it appears that the Environmental Permit as proposed would sanction acceptance of a wide range of recyclable 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.
3.2 Waste Transfer Station	3.2.3	"The riparian Waste Transfer Stations listed above have existing planning and	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

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		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".	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.
	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.
4.2 Heat Network Priority Area	4.2.1- 4.2.3	The Applicant considers that both residential heat demand (specifically the	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

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		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'.	20. 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.
	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.
	4.2.5	"RRRF would offer carbon savings over the counterfactual cases of	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.

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		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".	
	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.
4.3 Demonstrable Steps	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	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

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		Scheme and additional sites further afield in Bexley and particularly Greenwich, where buildout 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".	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.
	4.3.1 – 4.3.7	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.

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			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 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".
	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 carboninefficient 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.
	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

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4.4 Carbon Intensity	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.
	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	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.

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		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".	
5.2 CIF - Efficiency of REP	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.
	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

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5.3 CIF - Carbon Performance	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.

⁵ https://www.carbonbrief.org/analysis-uk-government-slashes-outlook-for-new-gas-power-plants

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			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
5.4 CIF - Calorific Value	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".	1. 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.
	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	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:

Section	Item	Applicant comment	GLA Comment
		examples of demonstrable steps, which implies that the specific examples given are not mandatory".	 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.
	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	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

Section	Item	Applicant comment	GLA Comment
		"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".	assessment. The GLA maintains that the Applicant is overstating the carbon saving benefits of the REP.
6.2 AQ - Selection and assessment of sensitive receptors	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	 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,

Section	Item	Applicant comment	GLA Comment
Section	Item	information provided with the application".	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:

Section	Item	Applicant comment	GLA Comment
Section		Applicant comment	 "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."
6.3 AQ – EP emissions limits	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	 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.

Section	Item	Applicant comment	GLA Comment
		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".	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.
6.5 Opportunity area, residential development and air quality	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.

Section	Item	Applicant comment	GLA Comment
			 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)
	6.5.7 – 6.5.23	GLA response contains a number of other potential locations for high density	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

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⁶ https://www.gov.uk/guidance/air-quality--3

Section	Item	Applicant comment	GLA Comment
		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.	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.
7. Transport	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	 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'.

Schedule 1 – GLA submission Deadline 5

Section	Item	Applicant comment	GLA Comment
Section	Item	REP under a possible	OLA COMMENT
		•	
		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.	

Section	Item	Applicant comment	GLA Comment
	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
	7.1.10 – 7.1.11	The GLA's Post Hearing Written Submission of	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

Section	Item	Applicant comment	GLA Comment
		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.	include small vehicles in the cap for HCVs to ensure that the vehicle movements do not exceed the level assessed in the TA.
7.3 Electrical Connections and Requirement 13 CTMP	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.	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.

Section	Item	Applicant comment	GLA Comment
Section	reem	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.	
7.4 Low Emissions Restrictions	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	 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.

Section	Item	Applicant comment	GLA Comment
		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.	
DCO Schedule 2 – proposed new requirements	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.

Section	Item	Applicant comment	GLA Comment
DCO Schedule 2 - Requirement 14	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.
	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.
DCO Schedule 2 -	8.1.16 – 8.1.17	"There is no planning policy requirement for the Applicant to	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

Section	Item	Applicant comment	GLA Comment
Requirement 18		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".	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.
DCO Schedule 2 - Requirement 20	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.

Section	Item	Applicant comment	GLA Comment
Section			 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

Section	Item	Applicant comment	GLA Comment
			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 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 lower than that of CCGT and that the grid carbon intens

Section	Item	Applicant comment	GLA Comment
	1,000	Tippineum cemment	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.
Appendix A	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).
Appendix A	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

⁷ https://consult.environment-agency.gov.uk/psc/da17-6jy-cory-environmental-holdings-limited/supporting_documents/S238303200004NP%20Supporting%20Information%20v4%20clean.pdf

Section	Item	Applicant comment	GLA Comment
		•	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.
Appendix A	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.
Appendix A	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.	 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.

Section	Item	Applicant comment	GLA Comment
		Demonstrating that 2009 was the low point caused by the recession; real terms growth from 2008 is just 4.2%.'	
Appendix A	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).
Appendix A	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.
Appendix A	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.
Appendix A	A.3.1 to A3.5	Assertions that the Applicant is unable to	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

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		replicatethe GLA's approach.	the GLA Appendix 2A at Deadline 3, including a line by line reconciliation of the GLA methodology against the Applicant's in Table 2.
Appendix A	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)8 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).
Appendix A	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	 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).

⁸ https://webarchive.nationalarchives.gov.uk/20130125163914/http://www.defra.gov.uk/statistics/files/ci-project-report.pdf

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		composition is not of relevance.	
Appendix A	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.
Appendix A	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.
Appendix A	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

⁹ http://www.esauk.org/application/files/6015/3589/6453/UK_Residual_Waste_Capacity_Gap_Analysis.pdf

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			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.
Appendix A	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.
Appendix A	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'.

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			 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.
Appendix A	3.17	'(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:

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			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).
Appendix A	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.
Appendix B	The Applicant's response to the GLA's Deadline 3 Submission Appendix 3:	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	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.

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	the Eunomia Report on the performance of the REP	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.	
Appendix C	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.
Appendix C	2.5.37 The Applicant	The Applicant agrees that the Draft WI BREF	149. This section adds little new information to that previously provided on the content of the draft BREF.

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Section	understands the general sensitivity of air quality impacts within Greater London. Taking this into	Applicant comment 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	 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.
	consideration, within the Environmental Permit (EP) application, the Applicant has proposed to commit and invest in the 'lowest' emission limit within the EP	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	
	application for any conventional ERF within London or the UK. This will be secured in the EP	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	

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		120mg/Nm3) and clarified within the	
		Environmental Permit 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	

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		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.	