

Riverside Energy Park Waste Hierarchy Scheme

In accordance with Requirement 16, Schedule 2,
Riverside Energy Park Order 2020 (as amended)

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1. Introduction

1.1 Introduction

- 1.1.1 This document is the Waste Hierarchy Scheme ('WHS') for the commissioning and operation of Riverside 2¹ ('the Authorised Development') and has been prepared in accordance with Requirement 16 of the Riverside Energy Park Order (2020) as amended ('the Order'). The Riverside Energy Park Order 2020 was made by the Secretary of State on 9th April 2020. This has been amended by the Riverside Energy Park (Correction) Order 2021 that came into force on 10 March 2021.
- 1.1.2 The Order grants the Undertaker powers to construct, operate and maintain an integrated energy park comprising complementary energy generating development (with energy from waste being the largest component) and an associated Electrical Connection that will run from Riverside 2 and terminate at the Littlebrook substation in Dartford.
- 1.1.3 Schedule 2 of the Order presents 33 Requirements, conditions that must be met at various stages of the Authorised Development being constructed, commissioned and operated. Requirement 16: Waste Hierarchy Scheme is set out in full at Section 1.2 below; in short it states that, prior to commissioning a scheme shall be submitted to and approved by the relevant planning authority which sets out the arrangements for maintenance of the waste hierarchy and which aims to minimise recyclable and reusable waste received at the Authorised Development.
- 1.1.4 This WHS has been prepared by Cory to seek approval from London Borough of Bexley ('LBB') as the relevant planning authority for Requirement 16: Waste Hierarchy Scheme.

1.2 The Authorised Development

- 1.2.1 The Authorised Development is prescribed at Schedule 1 of the Order, comprising the following Work Numbers:
- Work No. 1A: an energy recovery facility with a capacity to process up to 805,920 tonnes of waste per calendar year;
 - Work No. 1B: an anaerobic digestion system with a capacity to process up to 40,000 tonnes of waste per calendar year;
 - Work No. 1C: solar photovoltaic panels and, should a steam turbine building be constructed as part of Work No. 2, on all or part of the steam turbine building forming part of Work No. 2;
 - Work No. 1D: a battery storage facility;
 - Work No. 1E: a building with roof enclosing and/or supporting all or part of Work Nos. 1A, 1B, 1C and 1D;
 - Work No. 2: a cooling system comprising air-cooled condensers and a steam turbine (if not constructed and installed as part of Work 1A);

¹ Facilities across the Riverside campus are being rebranded such that Riverside Resource Recovery Facility is called Riverside 1, and Riverside Energy Park called Riverside 2.

- Work No. 3: combined heat and power equipment;
- Work No. 4: an electrical substation;
- Work No. 5: supporting buildings and facilities;
- Work No. 6: supporting infrastructure;
- Work No. 7: pipes and cables, from Work No. 6;
- Work No. 8: temporary construction compounds;
- Work No. 9: an electrical connection; and
- Work No.10: the electrical connection to the Littlebrook substation.

1.2.2 The full text of Requirement 16 as set out at Schedule 2 of the Order is:

Waste hierarchy scheme

(1) Prior to commissioning, the undertaker must submit to the relevant planning authority for approval a scheme, which sets out arrangements for maintenance of the waste hierarchy in priority order and which aims to minimise recyclable and reusable waste received at the authorised development during the commissioning and operational period of the authorised development (the “waste hierarchy scheme”).

(2) The waste hierarchy scheme must include details of—

(a) the type of information that must be collected and retained on the sources of the residual waste after recyclable and reusable waste has been removed;

(b) the arrangements that must be put in place for ensuring that as much reusable and recyclable waste as is reasonably possible is removed from waste to be received at the authorised development, including contractual measures to encourage as much reusable and recyclable waste being removed as far as possible;

(c) the arrangements that must be put in place for ensuring that commercial suppliers of residual waste operate a written environmental management system which includes establishing a baseline for recyclable and reusable waste removed from residual waste and specific targets for improving the percentage of such removed reusable and recyclable waste;

(d) the arrangements that must be put in place for suspending and/or discontinuing supply arrangements from commercial suppliers who fail to retain or comply with any environmental management systems;

(e) the arrangements that must be put in place for the provision of an annual waste composition analysis undertaken by the undertaker, with the findings submitted to the relevant planning authority within one month of the sampling being undertaken; and

(f) the form of records that must be kept for the purpose of demonstrating compliance with (a) to (e) and the arrangements in place for allowing inspection of such records by the relevant planning authority.

(3) The waste hierarchy scheme must be implemented as approved under sub-paragraph (1).

Integrated Energy Park

- 1.2.3 The integrated energy park will be constructed on the Main REP Site, land immediately adjacent to Cory's existing Riverside 1 located at the northern end of Norman Road in Belvedere, within the London Borough of Bexley and will complement Cory's existing operations. A Site Plan is provided at Appendix A. The energy park will predominantly generate electricity via an Energy Recovery Facility ('ERF'). The ERF will provide thermal treatment of residual (non-recyclable) commercial and industrial ('C&I') waste and local authority collected waste ('LACW') which together comprise municipal waste.
- 1.2.4 The integrated energy park will also include:
- Anaerobic Digestion facility: to process food and green waste. Outputs from the Anaerobic Digestion facility will be transferred off-site for use in the agricultural sector as fertilizer, or as an alternative (where appropriate) used as a fuel in the ERF to generate electricity;
 - Solar Photovoltaic Installation: to generate electricity, to be installed across a wide extent of the roof of the Main REP Building;
 - Battery Storage: to store and supply additional power to the local distribution network at times of peak electrical demand, to be integrated into the Main REP Building; and
 - On Site Combined Heat and Power ('CHP') Infrastructure: to provide an opportunity for local district heating for nearby residential developments and businesses. Riverside 2 will be CHP-Enabled with necessary on site infrastructure included within the Main REP site.


Electrical Connection

- 1.2.5 REP will be connected to the electricity distribution network via a new 132 kilovolt ('kV') underground electricity cable connection.
- 1.2.6 The Order includes an electrical connection route to connect Riverside 2 to the existing National Grid Littlebrook substation located south east of the Main REP Site, in Dartford. The route will be located within the administrative boundaries of both LBB and Dartford Borough Council and will run from a new substation within the Main REP Site.

Construction Compounds

- 1.2.7 Temporary Construction Compounds are located on Norman Road that will comprise hard standing, vehicle parking, material laydown, accommodation block(s), new or altered accesses and construction fabrication areas.
- 1.2.8 Temporary construction compounds are also situated at the horizontal directional drilling location (adjacent the River Darent in Dartford) to be used exclusively by the Principal Contractor for the Electrical Connection.

The Undertaker

- 1.2.9 Riverside Energy Park Limited, trading as Cory, is the Undertaker for Riverside 2².
- 1.2.10 Cory is registered in England with registered address at 5th Floor, 10 Dominion Street, London, United Kingdom, EC2M 2EF.
- 1.2.11 As one part of a larger group, Cory has provided essential services and infrastructure to the people of London, and has operated barges along the River Thames, since the 1800s. Today, the company provides a wide range of resource management services to a number of different clients, including waste transfer, sorting for recycling, and energy recovery, and still uses barges to transport waste and ash. These services are provided across a number of key sites: the materials recycling facility located at Wandsworth; a number of river-based transfer stations; and energy recovery currently takes place at Riverside 1.
- 1.2.12 Further information on Cory is available at 

The development and construction programme

- 1.2.13 At the time of writing, the proposed construction programme is anticipated to run from 2022 to 2024, with the ERF being fully operational in 2025.

² Riverside Energy Park Limited (company number 11536739) is a wholly owned subsidiary of Cory Environmental Holdings Limited (company number 5360864). On 4 January 2022, the benefit of the Order was transferred from Cory Environmental Holdings Limited to Riverside Energy Park Limited in accordance with article 9 of the Order.

2. Context

2.1 Overview

2.1.1 Requirement 16 was proposed by the Undertaker during the DCO Examination, following discussions held during the issue specific hearing on environmental matters and in response to concerns raised by the Greater London Authority ('GLA') in its submissions.

2.1.2 In his letter of 9 April 2020, the Secretary of State considers the matter in some detail, concluding (paragraphs 4.8 to 4.10):

4.8 EN-1 makes clear that "Only waste that cannot be re-used or recycled with less environmental impact and would otherwise go to landfill should be used for energy recovery". The Government's Resources and Waste Strategy, published in 2018, sets out how we will minimise the damage caused to our natural environment by reducing and managing waste safely and carefully. The ambition for the future of waste management in England is to ensure that we preserve material resources through a reduction in the generation of waste and by moving towards a circular economy. It also aims to manage any residual waste in a way that maximises its value as a resource whilst minimising environmental impacts. Accordingly it gives the view that while energy from waste (EfW) should not compete with greater waste prevention, re-use or recycling, it does play an important role within the waste hierarchy by diverting waste that cannot be reused or recycled from landfill, which is generally considered the least favourable method of managing waste.

4.9 The Secretary of State notes that during the examination, the Applicant introduced a new requirement, Requirement 16, which will ensure the maintenance of the waste hierarchy in priority order by minimising recyclable and reusable waste received by the Development, and failure to comply with this requirement would put the Applicant in breach of the Order. The Secretary of State agrees with the ExA that this should ensure the Development will not breach the principals of the waste hierarchy. The Secretary of State also agrees with the ExA that projections on the availability of waste fuel stock is subject to uncertainty, and that the Applicant's projections took into account the Mayor of London's policies on reducing waste arising and increased recycling and reuse rates [ER 5.2.34], and the issue of whether or not the volume of waste fuel stock available will allow the Applicant to make use of the total capacity of the Development is a commercial matter for the Applicant [ER 5.2.37].

4.10 After having regard to the consideration set out in Chapter 3 [ER 3.1.3 - 3.1.11] of the ExA's Report, and in particular the conclusions on the principle of the Development in ER 4.4.1 – 4.4.5 and the ExA's findings in Chapter 5 of the Report, the Secretary of State is satisfied that making the Order would be consistent with EN-1 and EN-3. Taken together, these National Policy Statements set out a national need for development of new nationally significant electricity generating infrastructure of the type proposed by the Applicant. The Secretary of State notes that the ExA is satisfied that the Applicant has given consideration to design and to alternatives to the Development, and that the requirements of EN-1 in this regard have been met [ER 4.4.6].

2.2 Policy and strategy relevant to the Waste Hierarchy Scheme

2.2.1 The waste hierarchy is a well-established policy principle, delivering objectives of both the Waste Framework Directive³ and the Landfill Directive⁴, and seeking to prevent or reduce the negative effects on the environment and people from waste management. The focus is rightly placed on higher levels of the waste hierarchy, reducing the amount of waste produced and looking to re-use or recycle this resource.

2.2.2 However, not all waste can be managed in this way and consequently the Government supports the efficient recovery of residual waste. The EfW Debate Guide⁵ confirms this approach, recognising that (page 2):

'In future we are aiming to prevent, reuse and recycle more of our waste, so the amount of residual waste should go down. However, energy from waste will remain important.

To maintain the energy output from less residual waste resource we will need to:

- divert more of the residual waste that does still exist away from landfill and capture the renewable energy*
- continue the drive towards better, higher-efficiency energy from waste solutions.'*

2.2.3 This integrated approach of delivering waste treatment facilities alongside other development to deliver sustainable communities is a consistent theme throughout NPPW⁶. Not least, the opening paragraph confirms that waste management makes a positive contribution to sustainable communities, sustainable development and resource efficiency:

'Positive planning plays a pivotal role in delivering this country's waste ambitions through:

- delivery of sustainable development and resource efficiency, including provision of modern infrastructure, local employment opportunities and wider climate change benefits, by driving waste management up the waste hierarchy (see Appendix A);

- ensuring that waste management is considered alongside other spatial planning concerns, such as housing and transport, recognising the positive contribution that waste management can make to the development of sustainable communities;

- providing a framework in which communities and businesses are engaged with and take more responsibility for their own waste, including by enabling waste to be disposed of or, in the case of mixed municipal waste from households, recovered, in line with the proximity principle;

- helping to secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment; and

³ <https://www.legislation.gov.uk/eudr/2018/851/article/1>

⁴ [REDACTED]

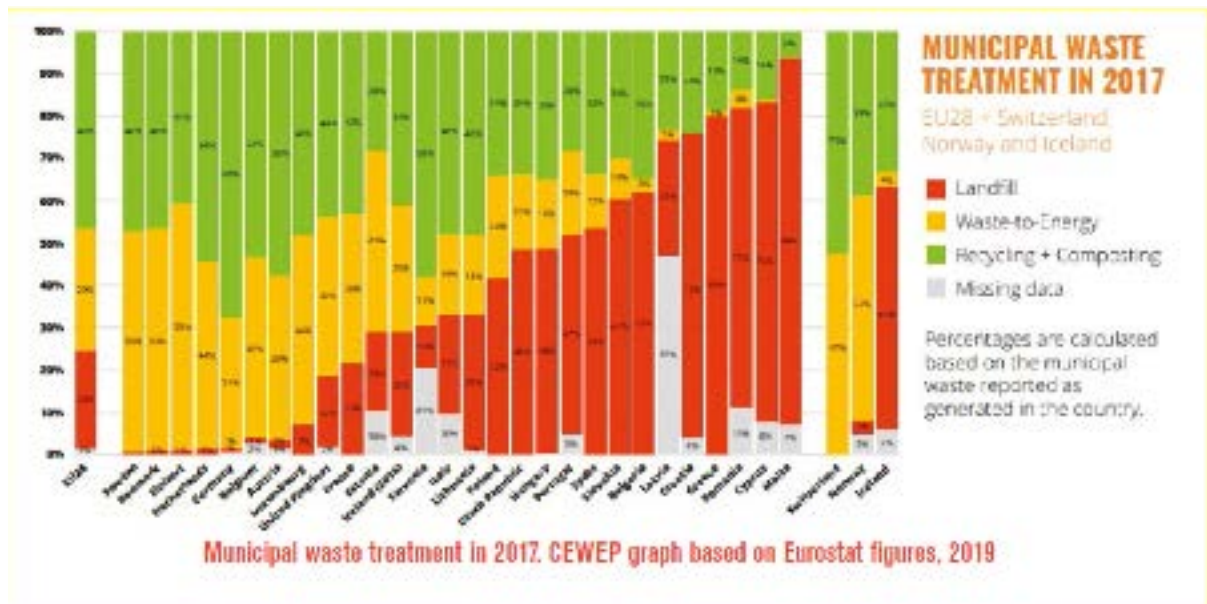
⁵ Energy from waste: a guide to the debate, Defra, Updated 2014.
<https://www.gov.uk/government/publications/energy-from-waste-a-guide-to-the-debate>

⁶ National planning policy for waste, DLUHC/MHCLG, October 2014.
<https://www.gov.uk/government/publications/national-planning-policy-for-waste>

- ensuring the design and layout of new residential and commercial development and other infrastructure (such as safe and reliable transport links) complements sustainable waste management, including the provision of appropriate storage and segregation facilities to facilitate high quality collections of waste.'

- 2.2.4 National policy recognises that recovery capacity (such as that provided at Riverside 2) should not prejudice recycling rates. NPS EN-3⁷ requires that 'the proposed waste combustion generating station is in accordance with the waste hierarchy and of an appropriate type and scale so as not to prejudice the achievement of local or national waste management targets in England'.
- 2.2.5 Evidence submitted by Cory at the DCO Examination demonstrated that there remains a policy driven need for additional residual waste management capacity within London to complement new re-use and recycling facilities and to ensure the Capital has the right network of infrastructure provision.
- 2.2.6 This position has subsequently been corroborated by a report titled 'No Time to Waste'⁸ was published in July 2020 by the think tank Policy Connect. This cross-party supported report addresses the perceived conflict between recovery and recycling head on, stating (at pages 17 and 18):

'There are often claims that EfW inhibits recycling rates, however this inquiry found no evidence to support this. Conversely, countries with higher reliance on EfW than landfill, often provide evidence that EfW goes hand in hand with the best recycling performances. The below graph visualises the proportion of waste sent to either landfill, EfW, or recycled, by European countries in 2017. In contrast to claims that EfW hampers recycling, the below shows that the countries with the highest and above average recycling rates, are the ones with more EfW and less landfill.



⁷ National Policy Statement for Renewable Energy Infrastructure (EN-3), DECC, July 2011.
<https://www.gov.uk/government/publications/national-policy-statements-for-energy-infrastructure>

Parts of the UK have replicated this trend albeit at a more localised scale. Buckinghamshire achieves well above average recycling rates (57% in 2014/15, compared to a national average of 43.7%), and this is alongside a move to EfW reliance for their residual waste, and the associated cost savings.'

- 2.2.7 It also notable that LBB, the highest performing authority in London for recycling, consistently achieving 50% and more, delivers this level of performance alongside using Riverside 1 for recovery from its LACW residual waste stream.
- 2.2.8 Recovering energy from residual waste, the role delivered by the ERF, is a core element of the waste hierarchy, supported by European, national and local policy. It is notable that the most recent expression of Government's intentions for waste management, the RWS⁸ expands the concept to fully recognise waste as a resource; something that should be valued and not simply treated or disposed of. *'Our Strategy is framed by natural capital thinking and guided by two overarching objectives:*
- 1 To maximise the value of resource use; and*
- 6 To minimise waste and its impact on the environment.'* (page 17)
- 2.2.9 Valuing resources to gain these benefits is achieved through a lifecycle approach and delivery of the circular economy. The RWS confirms (at page 26) that reusing and recycling materials helps to reduce the need for virgin raw materials and prevent the impacts of its manufacture:
- 'But it's not just in material reuse that the circular economy delivers benefits. It's also relevant to energy generation and savings. Incineration of non-recyclable or contaminated waste (such as food packaging) can generate energy. Bio-waste can also be used to make bio-gas, a renewable energy source'* (page 26).
- 2.2.10 The Government's recent Response to CCC 2021⁹, repeats its recognition of the important role that energy recovery facilities (such as Riverside 2) play, working alongside waste minimisation initiatives and waste recycling facilities. The accumulation of all these elements needs to be delivered in order to achieve the waste hierarchy.
- 2.2.11 Consequently, whilst the waste hierarchy is a policy consideration, regulation of it falls to the Environment Agency. Regulation 12 of the Waste Regulations 2011¹⁰ establishes the duty in relation to the waste hierarchy. The duty is placed on an *'establishment or undertaking which imports, produces, collects, transports, recovers or disposes of waste, or which as a dealer or broker has control of waste must, on the transfer of waste, take all such measures available to it as are reasonable in the circumstances to apply the following waste hierarchy as a priority order.'*
- 2.2.12 Regulation 18 of the Waste Regulations 2011 requires a planning authority to have regard to Articles 13 and 16 (in part) of the Waste Framework Directive. Article 13 is concerned with the protection of human health and the environment. Article 16 is

⁸ Resources and Waste Strategy for England, Defra, December 2018

<https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england>

⁹ Government Response to the Climate Change Committee, Progress in Reducing Emissions - 2021 Report to Parliament, October 2021.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1026734/government-response-ccc-progress-report.pdf

¹⁰ www.legislation.gov.uk/uksi/2011/988/contents/made

concerned with the principles of self-sufficiency and proximity. Neither addresses the waste hierarchy, which is set out at Article 4. Consequently, the waste hierarchy is a policy consideration, but not a matter to be regulated by the planning domain.

- 2.2.13 As is seen through the following discussion of upcoming initiatives, Government recognises the need for an effective infrastructure network to deliver the waste hierarchy and expects those producing and collecting waste to be more engaged to deliver the next increase in recycling rates.

2.3 Initiatives relevant to the Waste Hierarchy Scheme

Introduction

- 2.3.1 The RWS was the first significant waste policy intervention by the Government in over a decade. It placed the Circular Economy as a central pillar of the Strategy, to be delivered through headline objectives. This approach is aimed at giving a clear, longer-term strategy to deliver resource efficiency and waste management in line with the 25 Year Environment Plan¹¹.

- 2.3.2 The eight headline objectives are:

1. Sustainable production, with measures related to:
 - confirm the 'polluter pays' principle and extend producer responsibility for packaging, ensuring that producers pay the full costs of disposal for packaging they place on the market;
 - stimulate demand for recycled plastic by introducing a tax on plastic packaging with less than 30% recycled plastic; and
 - set minimum requirements through eco-design to encourage resource efficient product design.
2. Helping consumers take more considered actions, including providing consumers with better information on the sustainability of their purchases and banning plastic products where there is a clear case and alternatives exist.
3. Resource recovery and waste management, with measures on:
 - ensuring a consistent set of dry recyclable materials is collected from all households and businesses to improve recycling rates;
 - reducing greenhouse gas emissions from landfill by ensuring that every householder and appropriate businesses have a weekly separate food waste collection;
 - working with business and local authorities to improve urban recycling rates; and
 - driving greater efficiency of energy recovery facilities.
4. Tackling waste crime, including increasing awareness of waste regulations toughening penalties for waste criminals.

¹¹ www.gov.uk/government/publications/25-year-environment-plan

5. Cutting down on food waste, including looking at more effective redistribute food and consulting on legal powers to introduce food waste targets and surplus food redistribution obligations.
 6. International leadership, much of which is focused on managing the wider implications of plastics in the environment.
 7. Research and innovation, covering areas such as:
 - the development of standards for bio-based and biodegradable plastics; and
 - support further investment in resource efficient technologies.
 8. Measuring progress, data, monitoring and evaluation, with measures related to
 - a new approach to data on resources and waste; and
 - moving away from weight-based towards impact-based targets and reporting, focusing initially on carbon and natural capital accounting.
- 2.3.3 The range of matters addressed through each of the headline objectives demonstrates the Government's recognition that a number of different parties and different approaches will be required to achieve the waste hierarchy and transition successfully to a Circular Economy.
- 2.3.4 Notably, there is a focus on research and new approaches for the future; a recognition that this transition will not happen immediately but over time and reliant upon delivery of new initiatives throughout the life cycle of material, from its development to its management as a waste.
- 2.3.5 In short, the focus areas area not restricted to one element of waste management but involve priorities cutting across research, design, plastics and food waste, and informing consumer actions.
- 2.3.6 Of particular relevance to Requirement 16 and this WHS are the recent consultations (2019 and 2021) in relation to new legislative proposals for consistency in waste collection.

Collection Consistency First Consultation (2019)

- 2.3.7 The Environment Act 2021¹² is a wide-ranging piece of primary legislation aimed at improving air and water quality, tackling waste, increasing recycling, halting the decline of species and improving the natural environment. Notably, it sets the legal framework for greater consistency in recycling collections in England; not least defining what/how waste must be separated and when deviation from these requirements can be implemented.
- 2.3.8 Four conditions for household waste collection arrangements are presented:
1. 'Recyclable household waste' must be collected separately from other household waste, with six 'recyclable waste streams' defined:
 - a. glass;
 - b. metal;
 - c. plastic;

¹² https://www.legislation.gov.uk/ukpga/2021/30/pdfs/ukpga_20210030_en.pdf

- d. paper and card;
 - e. food waste; and
 - f. garden waste.
2. 'Recyclable household waste' must be collected for recycling or composting.
 3. 'Recyclable household waste' in each recyclable waste stream must be collected separately. Although, two or more recyclable waste streams may be collected together where:
 - a. it is not technically or economically practicable to collect recyclable household waste in those recyclable waste streams separately, or
 - b. collecting recyclable household waste in those recyclable waste streams separately has no significant environmental benefit.

However, the collection of dry recyclable streams and organic streams together is not permitted.

Where two or more recyclable waste streams are to be collected together, the waste collector will be required to prepare a written assessment setting out why the criteria for not separately collecting each recyclable waste stream applies.

4. 'Recyclable household waste' that is food waste must be collected at least once a week.

2.3.9 The Environment Act 2021 places similar requirements on commercial and industrial waste (which is similar in nature and composition to household waste) with the duty placed on the collector of the waste. The difference for commercial and industrial wastes are:

- recyclable waste streams do not include garden waste; and
- the collection frequency for food waste is not specified.

2.3.10 Consequently, the first consultation focussed on the requirement for households and businesses to present dry recyclables and food waste separately from residual waste for collection and recycling and on a minimum service standard for local authority household waste collections. For households, the proposals included the collection of the same set of dry materials for recycling, and to have a separate weekly collection of food waste (separate from garden waste where practicable) from 2023. For businesses, the proposals consider segregation of dry recyclates and food waste, measures to reduce costs and improve data capture /management. The aim of the proposals is to incentivise quantity and quality of material collected to achieve higher recycling levels, and to address householder confusion.

Collection Consistency Second Consultation (2021)

2.3.11 The detail of the materials to be included under each of the 'recyclable waste streams' will be included in secondary regulation (expected to be published by the end of 2022) along with statutory guidance on how to comply with the requirements.

2.3.12 This was essentially the topic of the second consultation, which set out the government's thinking on these areas and sought responses to the proposals presented, including how the Environment Act 2021 powers should be used and how the associated policies should be implemented.

2.3.13 The consultation document gave a clearer picture of future collection standards and preferred collection methodologies, including:

- Arrangements for each dry recyclable waste stream, for example:
 - paper and card would not include disposable cups, with the Government minded in statutory guidance to recommend that paper and card are kept separate from other recyclable waste streams;
 - metal will include aluminium foil, aluminium food trays and aerosols; and
 - plastic will include plastic film (which should be phased-in for collection from households by 2026/27) and should include food and drink cartons.
- Exemptions for plastic & metal and glass & metal to be collected together from households without the need for a written assessment.
- Statutory guidance and minimum service standards, including:
 - examples of technically & economically practicable and no significant environmental benefit; and
 - completion of the written assessment.

2.3.14 The consultation also proposes a hierarchy of collection methodologies:

- Waste collectors should consider whether a kerbside sort or multi-stream system is practicable in the first instance.
- Waste collectors should consider whether a twin-stream collection system can be offered.
- If a twin-stream collection approach is not practicable, a co-mingled collection service could be considered as a last resort.

Conclusions

2.3.15 The two consultations give a good insight into the practical measures that are intended to be put into place to deliver the Circular Economy, including improved recycling as one element of the waste hierarchy.

2.3.16 The Government's focus is rightly on the front end of the system – collection. Improvement in the way that waste is collected will enable a greater range, and a greater proportion, of materials currently being discarded to be recycled instead. These actions demonstrate the Government's approach to delivering the waste hierarchy, which itself will impact on the residual wastes being delivered to energy recovery facilities such as Riverside 2.

2.4 Cory's role in the waste hierarchy

2.4.1 The Secretary of State concluded that the Authorised Development delivers the waste hierarchy. The ERF diverts residual waste away from disposal to landfill (the option of last resort) to recover both renewable/low carbon energy (electricity and heat) and secondary materials (aggregates and metals).

2.4.2 REP operates a one element of the infrastructure necessary to deliver the waste hierarchy; it is an important element, but it is located toward the back end of the network. Riverside 2 will receive the residual wastes that remain after production and collection by numerous other parties; it is the actions of these parties, making use of

available facilities, that will determine the extent of segregation and recycling that is undertaken to the wastes before those that remain are delivered to Riverside 2.

- 2.4.3 As part of its current operations, Cory is already involved in recycling activities. It operates two household waste and recycling centres ('HWRC') on behalf of the Western Riverside Waste Authority and the London Borough of Tower Hamlets, and a material recycling facility ('MRF') in Wandsworth. In 2020, the MRF separated 71,000 tonnes of dry material recyclates into 15 categories (including five different types of plastic) for onwards recycling. The HWRC provide local communities with a safe way to discard their unwanted goods, many of which can be reused or recycled.
- 2.4.4 The HWRC in Wandsworth is home to ReWork, a reuse workshop run by Groundwork, a community action initiative. ReWork repairs and services thousands of items before passing them on to charity retailers and social enterprises who sell them at affordable prices. Trainees at the workshop refurbish around 4,500 electrical items per year, including washing machines, fridges, cookers, microwaves and other household electrical goods, many of which are donated by the local community. These appliances, which would have been scrapped, recycled or sent to landfill, are returned to full working order and given a second life.
- 2.4.5 Through these activities, Cory already plays an important role in helping to ensure that more materials are recycled, supporting the UK Government's ambitious target to get the UK's recycling performance to more than 65 per cent.
- 2.4.6 The Cory Sustainability Report 2020/21¹³ recognises Cory's 125 year history, evolving from a coal distribution company on the River Thames into one of the UK's leading waste management, recycling and energy recovery companies. Recycling rates is identified as a key topic to be addressed, such that the Company makes a commitment to exploring opportunities to remove plastics from the residual waste received at Riverside.
- 2.4.7 Experience from the waste management industry to date demonstrates that the best way to reduce the plastic content in waste is to reduce the amount of plastic produced and consumed, and so to ensure plastic does not enter the residual waste stream in the first place.¹⁴

'We hope that the plastics packaging tax and Extended Producer Responsibility system will lead to less plastics being produced, more plastics being recycled and, ultimately, less plastic ending up in residual waste. We are currently hearing many announcements from consumer brands and other businesses committing to using more recycled plastics. Creating end markets for recycled plastics will make recycling economically viable, and will help to build public confidence in recycling, ensuring that these materials get put in the recycling bin rather than end up in residual waste.'
[page 14]

- 2.4.8 The pathway [page 18] presents a clear commitment to 'support initiatives to remove plastic from waste at the front end'. To do this, Cory is currently preparing a campaign to work with relevant parties to influence plastic use.

¹³ [REDACTED]

¹⁴ A net-zero greenhouse gas emissions strategy for the UK recycling and waste sector, Environmental Services Association, 2021, page 35

- 2.4.9 The first step in this campaign starts with data gathering. Cory has commissioned an in-depth composition analysis to assess the plastic breakdown in the residual waste entering Riverside 1 from households and businesses in London. This will include a specific focus on plastics that fall outside kerbside recycling schemes, as well as their sources and uses. This research will be used to inform messaging that will highlight the types, sources and uses of plastics that Cory believes should be limited in production/ consumption, or new recycling services be provided, for example by way of reverse logistics for business waste. In short, this information will assist Cory to determine the focus for its future campaigns and investment decisions.
- 2.4.10 There are numerous parties involved in the generation and management of waste, starting with those designing products and packaging, to those buying the products and their treatment of those goods, through those collecting and treating wastes. The Sustainability Report also presents Cory's role in its local communities, providing training, funding and experiences to encourage sustainable waste management today and future generations interest in the resource management of tomorrow.
- 2.4.11 Created in 2009, GRESB is the global environmental, social governance ('ESG') benchmark for financial markets, composed of an independent foundation and a benefit corporation. GRESB is a mission-driven and industry-led organization that provides actionable and transparent ESG data to financial markets. It collects, validates, scores and benchmark ESG data to provide business intelligence, engagement tools and regulatory reporting solutions for investors, asset managers and the wider industry.
- 2.4.12 In 2021, Cory gained accreditation from GRESB as an infrastructure sector leader. GRESB provides a consistent framework to measure the ESG performance of individual assets and portfolios based on self-reported data. Performance assessments are guided by what investors and the wider industries consider to be material issues, and they are aligned with the Sustainable Development Goals, the Paris Climate Agreement and major international reporting frameworks.
- 2.4.13 Cory is already an industry leader and it continues to look afresh at new initiatives to maintain its position within the resource management sector.

3. The Waste Hierarchy Scheme

3.1 Introduction

- 3.1.1 Requirement 16 is specific about the details that should be included within the Waste Hierarchy Scheme.
- 3.1.2 Each detail is addressed in this section, which is also accompanied by proposals for monitoring and review.

3.2 Requirement 16(1)

- 3.2.1 This document presents the required scheme that sets out the arrangements for maintenance of the waste hierarchy in priority order and which aims to minimise recyclable and reusable waste received at the Authorised Development.

3.3 Requirement 16(2)

(a) The type of information that must be collected and retained on the sources of the residual waste after recyclable and reusable waste has been removed

- 3.3.1 REP will receive residual municipal waste from both local authorities (LACW) and businesses (C&I waste). Cory is taking part in multiple local authority procurement processes and progressing multiple, highly developed, confidential discussions with numerous reputable C&I waste suppliers for long term waste supply contracts for Riverside 2. Cory will also enter into shorter term contracts with C&I waste customers to their residual waste at Riverside 2.
- 3.3.2 The generation of waste and its initial segregation is undertaken by the waste producer. The processes of collection from the waste producer, and any further sorting, are undertaken by local authorities (such as the above London Boroughs) and commercial waste management companies. Those bodies then deliver the waste to Cory; they are waste suppliers to the Undertaker.
- 3.3.3 Most waste (currently c.85%) will be received from waste suppliers through one of Cory's riparian transfer stations, where it will be bulked up into containers prior to delivery to Riverside 2 along the River Thames by barge. Some waste will be delivered by road. However it is delivered, the wastes received are those that remain after it has been collected and segregated for recycling, with both activities undertaken by parties unrelated to Cory.
- 3.3.4 The waste composition analysis (discussed further at Requirement 16(2)(e)) will provide the information to be collected and retained on these sources of waste.

(b) The arrangements that must be put in place for ensuring that as much reusable and recyclable waste as is reasonably possible is removed from waste to be received at the authorised development, including contractual measures to encourage as much reusable and recyclable waste being removed as far as possible

- 3.3.5 Section 2 of this WHS has presented the role of Riverside 2 as one element within the network of infrastructure necessary to deliver the waste hierarchy. It is clear that Government expects waste producers and collectors to engage more fully in segregating wastes to enable improved recycling.

- 3.3.6 REP will receive the residual waste (that which remains after recycling) for recovery, so diverting it from landfill and ensuring the greatest value is gained from that waste for as long as possible.
- 3.3.7 An Environmental Permit has been gained for Riverside 2 (reference: EPR/GP353QS, dated 17.07.2020, 'the Riverside 2 EP'). At paragraph 2.3.4, the Riverside 2 EP states that waste shall only be accepted if:
- a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
 - b) it conforms to the description in the documentation supplied by the producer or holder; and
 - c) it having been separately collected for recycling, it is subsequently unsuitable for recovery by recycling.
 - d) the facility has sufficient free capacity to store and treat the waste.
- 3.3.8 The Riverside 2 EP specifies both the types of waste to be received and that waste that has been separately collected for recycling should not be received unless it is subsequently unsuitable for that fate.
- 3.3.9 Cognisant of Requirement 16, the Undertaker has drafted into its template waste supply agreement the following clause 'Environmental Management System', which states:

'1.1 Environmental Management System

1.1.1 The Supplier shall supply to the Offtaker prior to the Waste Supply Commencement Date (and 20 Business Days prior to the end of each Contract Year thereafter) a report which sets out:

- 1) in respect of the immediately following Contract Year, a proposed baseline amount of recyclable and reusable waste to be removed from the Supplier's waste stream prior to delivery of Waste to the Offtaker;*
- 2) targets for improving the percentage of reusable and recyclable waste removed from the Supplier's waste stream;*
- 3) details of the Supplier's compliance with:*
 - i. paragraph 12 of the Waste (England and Wales) Regulations 2011; and*
 - ii. paragraph (i) and (ii) above in respect of the then current Contract Year (other than in respect of such report to be delivered prior to the Effective Date),*

such report being the "Environmental Management System".

1.1.2 If the Supplier fails to comply with any of its proposals contained in an Environmental Management System, it shall notify the Offtaker in writing. Representatives of the Supplier and the Offtaker shall meet within 14 days of receipt of the Offtaker's notice to discuss the non-compliance of the Environmental Management System and attempt in good faith to agree how the Supplier can comply with its Environmental Management System. To the extent that an agreement is reached between the Parties as a result of such discussions, the terms of such agreement shall be documented in writing and shall be implemented by the Parties in accordance with the timescales

agreed, or if no specific timescales are agreed, as soon as reasonably practicable.'

- 3.3.10 The Undertaker retains the right to change the precise wording used within its contracts with waste suppliers but commits to retaining a clause of this nature unless otherwise approved through a Requirement 27 application.
- 3.3.11 The Riverside 2 template waste supply agreement also includes strict specifications for the type of waste that is to be delivered to the facility in order to meet the Riverside 2 EP and ensure it is the type of waste that can be treated at the facility. The waste specification states, *inter alia*, that 'All Waste shall be waste originating from Municipal, Commercial and Industrial Waste (as each is defined in section 75 of the Environmental Protection Act 1990) which shall be in accordance with European Consolidated Waste Catalogue code 20-03-02 contained in the Environmental Permit and any other waste codes permitted by the Environmental Permit (provided that such other waste codes are agreed by the Parties in writing).'
- here are contractual penalties for supplying 'off-specification' waste.

(c) The arrangements that must be put in place for ensuring that commercial suppliers of residual waste operate a written environmental management system which includes establishing a baseline for recyclable and reusable waste removed from residual waste and specific targets for improving the percentage of such removed reusable and recyclable waste

- 3.3.12 Comprehensive due diligence is undertaken prior to contracting with a new waste supplier, including such tasks as: an audit of wastes handled by the supplier; review of the European Waste Codes attributed to wastes handled by the supplier; and a site visit to the supplier's premises. Consequently, Cory observes, first hand, how waste is received and handled on site, and what is sent out.
- 3.3.13 In addition, there is a duty on waste suppliers to correctly complete the waste transfer notes, identifying the wastes received at their sites and as deposited elsewhere. Spot checks are undertaken of the wastes being delivered, with a priority given to those loads received from a new waste supplier.
- 3.3.14 Cognisant of Requirement 16, the Undertaker has drafted into its template waste supply agreement the following clause 'Environmental Management System', which states:

'1.1 Environmental Management System

1.1.1 The Supplier shall supply to the Offtaker prior to the Waste Supply Commencement Date (and 20 Business Days prior to the end of each Contract Year thereafter) a report which sets out:

- 1) in respect of the immediately following Contract Year, a proposed baseline amount of recyclable and reusable waste to be removed from the Supplier's waste stream prior to delivery of Waste to the Offtaker;*
- 2) targets for improving the percentage of reusable and recyclable waste removed from the Supplier's waste stream;*
- 3) details of the Supplier's compliance with:*
 - i. paragraph 12 of the Waste (England and Wales) Regulations 2011; and*

- ii. *paragraph (i) and (ii) above in respect of the then current Contract Year (other than in respect of such report to be delivered prior to the Effective Date),*

such report being the “Environmental Management System”.

1.1.2 *If the Supplier fails to comply with any of its proposals contained in an Environmental Management System, it shall notify the Offtaker in writing. Representatives of the Supplier and the Offtaker shall meet within 14 days of receipt of the Offtaker’s notice to discuss the non-compliance of the Environmental Management System and attempt in good faith to agree how the Supplier can comply with its Environmental Management System. To the extent that an agreement is reached between the Parties as a result of such discussions, the terms of such agreement shall be documented in writing and shall be implemented by the Parties in accordance with the timescales agreed, or if no specific timescales are agreed, as soon as reasonably practicable.’*

- 3.3.15 The Undertaker retains the right to change the precise wording used within its contracts with waste suppliers but commits to retaining a clause of this nature unless otherwise approved through a Requirement 27 application.

(d) The arrangements that must be put in place for suspending and/or discontinuing supply arrangements from commercial suppliers who fail to retain or comply with any environmental management systems

- 3.3.16 Spot checks will be undertaken on loads delivered to Riverside 2, particularly from new suppliers. The supplier of any rejected load will be advised of the contractual requirement to deliver only residual waste to Riverside 2 and that further breaches of such requirement may lead to cancellation of the contract.
- 3.3.17 As specified in relation to Requirement 16(2)(b) and (c) a new clause has been added to the template waste supply agreement requiring submission of the Environmental Management System. This includes the steps to be taken by the waste supplier should there be a failure to comply with that provision.
- 3.3.18 The template waste supply agreement also includes a general clause that enables the Undertaker to terminate the contract in the event of a default. Those that are relevant to Requirement 16, i.e. for persistent breach of any provision in the agreement or because a breach results in a breach of the Undertaker’s planning and/or permitting restrictions (which are defined terms within the agreement) are set out here:

‘1.2 Event of Default means the occurrence at any time in relation to a Party (the “Defaulting Party”) of any of the following events:

1.2.1 *in respect of the Supplier;*

- 1) ...
- 2) *the Supplier breaches any obligation under this Agreement three or more times during a rolling six month period;*
- 3) ...;

- 4) *a breach by the Supplier or its Sub-contractor of any of its obligations under this Agreement which results in a breach of the Planning and Permitting Restrictions and as a direct result of such breach the Competent Authority:*
 - i. *takes enforcement action against the Offtaker and such enforcement action adversely affects (or is reasonably likely to adversely affect) the Offtaker's ability to perform the Offtake Services; or*
 - ii. *issues a notification that if such breach is not remedied it is likely to result in enforcement action being taken against the Offtaker which is reasonably likely to adversely affect the Offtaker's ability to perform the Offtake Services and, where the notification specifies a time period within which the breach must be remedied, the Supplier has failed to remedy such breach within that time period,*
- 5) *...'*

3.3.19 The Undertaker retains the right to change the precise wording used within its contracts with waste suppliers but commits to retaining a clause of this nature unless otherwise approved through a Requirement 27 application.

(e) The arrangements that must be put in place for the provision of an annual waste composition analysis undertaken by the undertaker, with the findings submitted to the relevant planning authority within one month of the sampling being undertaken.

3.3.20 Waste composition analysis is currently undertaken annually for Riverside 1; the details are submitted to Ofgem. The most recent analysis available (completed for calendar year 2020) is provided at Appendix B.

3.3.21 Sampling is undertaken in January of each year. A sampling plan is derived from the tonnage data of the previous 12 months, with representative samples taken from each collection point (whether that be a waste transfer station, direct delivery from local authority or direct delivery from trade supplier).

3.3.22 Both compositional and chemical analysis is undertaken of the waste samples.

3.3.23 The report is generally issued within one month of analysis.

3.3.24 It is proposed that this analysis is extended to incorporate the ERF at Riverside 2. The consequent report will be submitted to LBB, in addition to its submission to Ofgem.

(f) The form of records that must be kept for the purpose of demonstrating compliance with (a) to (e) and the arrangements in place for allowing inspection of such records by the relevant planning authority.

3.3.25 Compliance with Requirement 16(2)(a) and (e) will be demonstrated through the annual waste composition analysis.

3.3.26 Compliance with Requirement 16(2) b) (c) and (d) are demonstrated within this WHS and no further records are considered relevant or reasonable beyond annual confirmation that they still apply (to be provided with the annual waste composition analysis).

3.3.27 Not least, information regarding the waste suppliers and the contract held with them is subject to commercial confidentiality. Consequently, this information would not be provided to the relevant planning authority; however, if LBB chooses to inspect

records in relation to the agreements for waste supply it would be accommodated to do so, by prior appointment with Cory.

3.3.28 In any event, a material change to any element of this WHS would require approval through a Requirement 27 application.

3.3.29 Further, the Sustainability Report 20/21 demonstrates that Cory is at the forefront of the resource management sector and is looking to be actively involved in the future of waste generation, not least through its commitment in relation to removing plastic from residual waste.

3.4 Requirement 16(3)

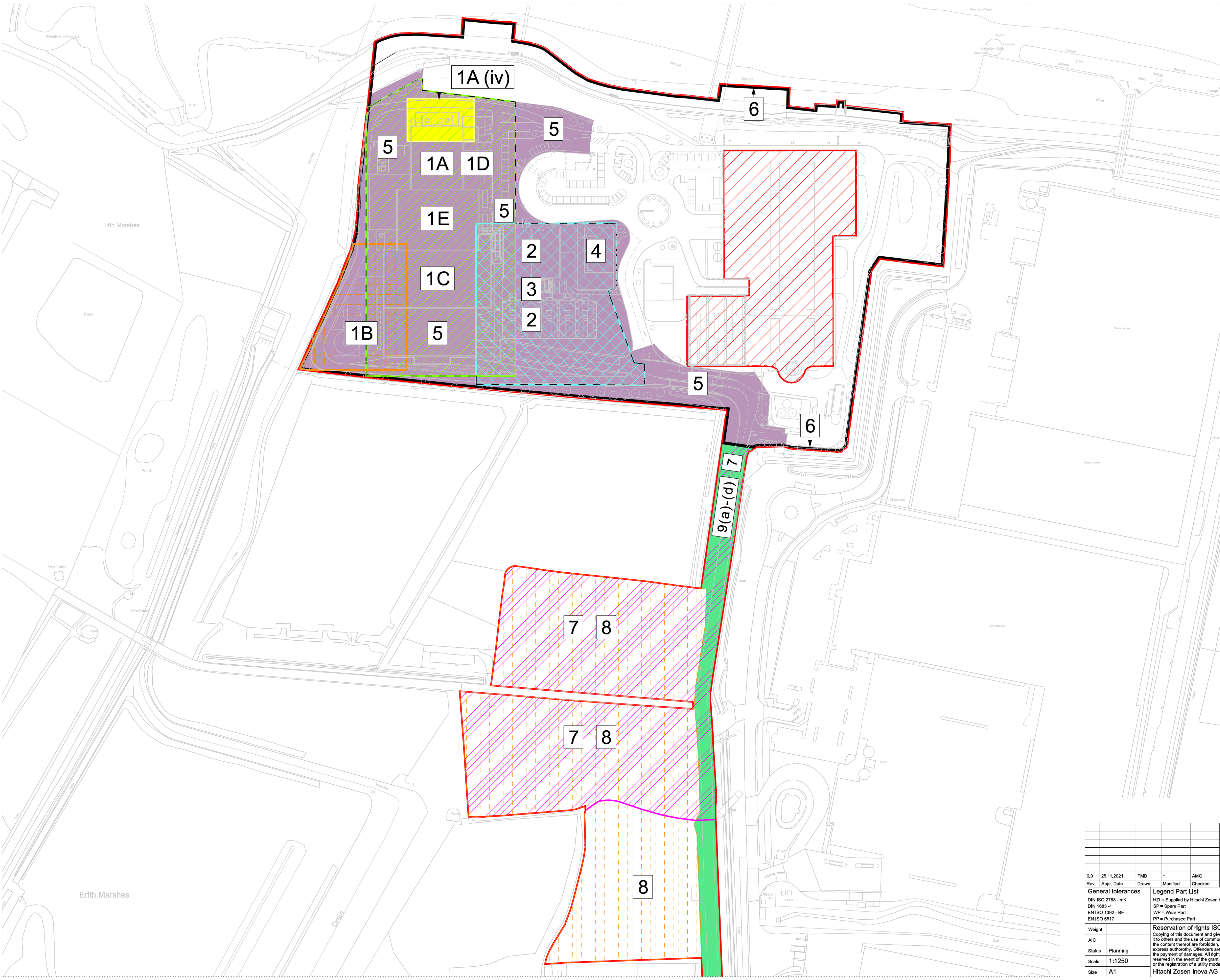
3.4.1 The waste hierarchy scheme shall be implemented as approved.

Riverside Energy Park Waste Hierarchy Scheme

In accordance with Requirement 16, Schedule 2,
Riverside Energy Park Order 2020 (as amended)

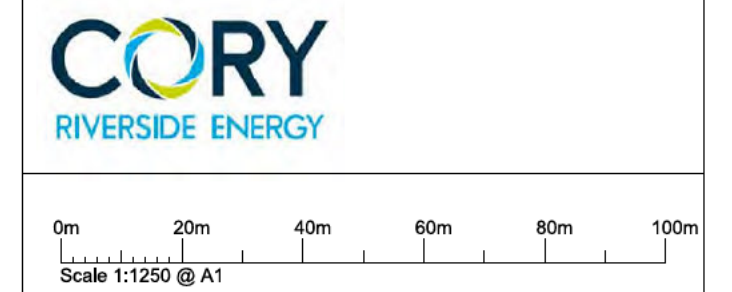
Appendix A





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NOTES	
WORK PLAN BOUNDARIES AND REFERENCES TAKEN FROM DOCUMENT REFERENCE 2.2	
	ORDER LIMITS
	AREA NOT INCLUDED IN DEVELOPMENT CONSENT ORDER
	LOCAL AUTHORITY BOUNDARY
LIMITS OF DEVIATION	WORK No. AUTHORISED DEVELOPMENT
	1A AN ENERGY RECOVERY FACILITY EXCLUDING WORK No. 1A(iv)
	1A (iv) UP TO TWO EMISSION STACKS
	1B AN ANAEROBIC DIGESTION SYSTEM
	1C SOLAR PHOTOVOLTAIC PANELS ON ALL OR PART OF WORK No. 1E AND SHOULD A STEAM TURBINE BE CONSTRUCTED AS PART OF WORK No. 2, ON ALL OR PART OF THE STEAM TURBINE BUILDING FORMING PART OF WORK No. 2. SWITCHGEAR, INVERTERS, TRANSFORMERS AND PERMANENT EQUIPMENT FOR MAINTENANCE
	1D A BATTERY STORAGE FACILITY
	1E A BUILDING WITH ROOF ENCLOSING AND/OR SUPPORTING ALL OR PART OF WORK NUMBERS 1A, 1B, 1C AND 1D
	2 WORKS TO CONSTRUCT A COOLING SYSTEM COMPRISING AIR-COOLED CONDENSERS AND, IF NOT CONSTRUCTED AND INSTALLED AS PART OF WORK No. 1A, A STEAM TURBINE, ELECTRICAL GENERATOR AND A STEAM TURBINE BUILDING
	3 WORKS TO CONSTRUCT AND INSTALL COMBINED HEAT AND POWER EQUIPMENT INCLUDING HEAT EXCHANGERS, PIPEWORK, INCLUDING FLOW/RETURN PIPEWORK, VALVING, PUMPS, PRESSURISATION AND WATER TREATMENT SYSTEMS
	4 WORKS TO CONSTRUCT AN ELECTRICAL SUBSTATION INCLUDING CIRCUIT BREAKER, AND TRANSFORMER, BUSBAR SECTIONS, INTEGRATED PROTECTION SCHEME AND UNINTERRUPTIBLE POWER SUPPLIES
	5 WORKS TO CONSTRUCT AND INSTALL SUPPORTING BUILDINGS AND FACILITIES
	6 WORKS TO CONSTRUCT AND INSTALL SUPPORTING INFRASTRUCTURE
	7 WORKS TO CONSTRUCT AND INSTALL FROM WORK No. 6 PIPES AND CABLES
	8 TEMPORARY CONSTRUCTION COMPOUND
	9(a)-(d) AN ELECTRICAL CONNECTION



0.000m = 2.970m AOD

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VAA-WA-58000001 0.0
WORK PLAN BOUNDARIES

Rev.	Appr. Date	Drawn	Modified	Checked	Approved	Modification
0.0	25.11.2021	TMB	-	AMG	PJC	ISSUED FOR REQUIREMENT 27
General tolerances		Legend Part List		Project Name		
DIN ISO 2768 - mK		H2I = Supplied by Hitachi Zosen AG		Riverside Energy Park		
DIN 1683 - I		SP = Spare Part		Belvedere		
EN ISO 1392 - BF		WP = Wear Part		London		
EN ISO 5817		PP = Purchased Part		Work Plan Boundaries		
Weight		Reservation of rights ISO 16016		Project-Nr		
AIC		Copying of this document and give it to others and the use of communication of the content thereof are forbidden, without express authority. Offenders are liable to the payment of damages. All rights are reserved in the event of the grant of a patent or the registration of a utility model or design.		16111		
Status Planning		Hitachi Zosen Inova AG		Document No.		Revision
Scale 1:1250				58000001		0.0
Size A1				Replaced by:		Replaced for:
		Hitachi Zosen Inova AG				Sht: 1 / 1