Cory Environmental Holdings Limited

Cory Decarbonisation Project

Qualifying Request for a Direction

Section 35 and Section 35ZA Planning Act 2008

1. INTRODUCTION AND OVERVIEW

1.1 This report constitutes a qualifying request by Cory Environmental Holdings Limited ("**Cory**") under section 35ZA(1) of the Planning Act 2008 (the "**Act**") for a direction by the Secretary of State under section 35(1) of the Act that parts of the Cory Decarbonisation Project (the "**Scheme**") be treated as development for which development consent is required.

1.2 Cory is part of the Cory Group, which is a leading recycling and waste management company, with an extensive river logistics network in London and a long history and deep connection to the city stretching back to the late 1700s.

1.3 Cory Group has invested heavily in London's recycling, energy generation and river logistics infrastructure and in addition to its commercial customers, Cory Group is a trusted partner for several local authorities in London (serving a combined population of c.3 million people) and operates essential infrastructure which London relies heavily upon on a day-to-day basis.

1.4 As a core part of its current activities, Cory Group has, since 2011, operated the 72MW capacity[1] energy from waste ("**EfW**") plant known as Riverside 1 (previously known as Riverside Resource Recovery Facility), on a site adjacent to the River Thames at Belvedere in the London Borough of Bexley.

1.5 In April 2020, the Secretary of State granted consent to Cory for a Development Consent Order ("**DCO**") in respect of Riverside 2 (previously known as Riverside Energy Park), a c. 96MW EfW plant located adjacent to Riverside 1. Cory is currently in the process of discharging the last of the pre-commencement requirements of the Riverside 2 DCO and has obtained an environmental permit for Riverside 2. It expects Riverside 2 to go to financial close in Quarter 3 2022 with an estimated construction start date in November 2022 and anticipated operation date by January 2026.

1.6 Both Riverside 1 and Riverside 2 will help deal with the waste needs of London and the South East and also, importantly, will form a key part of the proposed Riverside Heat Network, a partnership with Vattenfall which aims to deliver 58MW of heat for up to 21,000 homes in the London Borough of Bexley and the Royal Borough of Greenwich.

1.7 These facilities demonstrate Cory as leaders within the decarbonisation agenda and the Scheme is the next stage of the company's ambitions to continue to drive forward innovation. The Scheme involves the creation of a decarbonisation hub on the River Thames, made up of two key projects which:

1.7.1 in the context of the Government's overall commitment to supporting Carbon Capture Utilisation and Storage ("**CCUS**") for the waste sector, has the aim of capturing at least 90% of carbon emissions from Riverside 1 and Riverside 2 and in so doing, potentially delivering up to 1.49 million tonnes of CO_2 emissions savings per annum ("**the Carbon Capture and Storage Project**").

[1] Pursuant to a section 36C Variation issued by the Secretary of State on 17 December 2021, this capacity has now been increased to 80.5MW.

The achievement of these savings will mean that the Scheme is one of the largest CCUS projects in the UK; and

1.7.2 in the context of the Government's recognition of the urgent need for hydrogen infrastructure that enables hydrogen to play its part in the transition to net zero, seeks to utilise up to 50MW of the electricity generated by the EfW plants (which is already carbon neutral and with the installation of CCUS will become carbon negative) to produce up to 21.6 tonnes per day of hydrogen for use by vessels, HGVs and other facilities ("**the Hydrogen Project**").

1.8 In respect of the Carbon Capture and Storage Project, for the reasons set out below, Cory considers that it falls within the definition of an "extension" to a generating station and as such would qualify as an automatic Nationally Significant Infrastructure Project. However, also for the reasons set out below and despite the size and scale of the Carbon Capture and Storage Project, there is also uncertainty that the Carbon Capture and Storage Project would fall within the list of nationally significant infrastructure project types set out within section 14(1) of the Act. For these reasons, Cory is making this qualifying request to bring certainty to all parties that the proposed Carbon Capture and Storage Project:

1.8.1 does in fact, in this particular case, constitute a NSIP (by the Secretary of State not making a Section 35 Direction for that sole reason); or

1.8.2 does not in fact, in this particular case, constitute a NSIP; but is brought into the Planning Act 2008 regime via a section 35 Direction being made on the basis that it is of national significance and therefore should be treated as development for which development consent is required

1.9 In respect of the Hydrogen Project, it is clear that it would not fall within the list of nationally significant infrastructure project types set out within section 14(1) of the Act. For this reason, Cory is making this qualifying request as Cory considers that the Hydrogen Project is of national significance and therefore should be treated as development for which development consent is required.

2. THE SCHEME

2.1 The Carbon Capture and Storage Project involves the following:

2.1.1 Flue gas from both the Riverside 1 and Riverside 2 facilities would be transported from the existing ductwork leading to the exhaust stacks, to the capture plants via new ducting. Induced draft (ID) fans would be installed in the ducting adjacent to Riverside 1 and Riverside 2 to provide sufficient pressure to overcome the pressure drop in the ducting to reach the capture plant. At each stack, the below ducting would be required:

(a) an ID fan;

(b) tie-in to ductwork branch towards the capture plant; and

(c) damper (shut-off valve) to enable flue gas to be directed to either the capture plant or the stack if the capture plant is not operating.

2.1.2 Prior to entering the carbon capture facility, the incoming flue gas stream must be cooled. This is typically achieved by a combination of a gas-gas heat exchanger (where the incoming flue gas is cooled while heating the vent gas stream from the capture plant) and a direct contact cooler, where cooling water is used to further cool the flue gas to the required inlet temperature of the

capture plant. However, there may be opportunities to recover heat from the flue gas stream at this point to provide an additional heat source to the Riverside Heat Network; this would be evaluated as the Carbon Capture and Storage Project progresses.

2.1.3 Amine-based chemical absorption is currently proposed for the carbon capture plant (post-combustion capture); this is considered the most developed and commercially demonstrated carbon capture technology. There are several established suppliers of amine-based capture technology, each offering their own proprietary solvent formulation.

2.1.1 It is also the case that several solvent alternatives to amine are known to be under development for post-combustion capture, but these have not yet reached commercial maturity. There is therefore the possibility that a non-amine solvent technology may be selected for this project. A technology provider will be selected as the Carbon Capture and Storage Project moves forward, however it is the case that whichever solvent is used, there would be no fundamental differences to the process configuration described below.

2.1.2 Amines (or other forms of solvent) absorb the CO_2 from the flue gas stream, producing a soluble carbonate salt. In its basic configuration the solvent is in contact with the CO_2 carrying gas stream in an absorber. This rich liquid is then exposed to heat in a second column, the stripper (regenerator), where the heat supplied via the reboiler separates the CO_2 and the solvent. The CO_2 exiting the top of the stripper is cooled to condense water vapour, with the CO_2 separated from condensed water and any entrained solvent in the flash unit. The CO_2 is then sent for conditioning and transport. The residual flue gas stream from the absorber column is heated in the gas-to-gas exchanger to provide buoyancy and facilitate dispersion before being vented to the atmosphere.

2.1.3 The above process requires significant plant and a suitable heat source for the stripper column, thus it requires integration with the existing Riverside 1 and proposed Riverside 2 facilities to maximise energy efficiency and to provide a source of steam for the thermal stripping process.

2.1.4 The design has been based on two carbon capture process facilities operating in parallel, each designed to process 50% of the combined flow of CO2-containing flue gas from the existing Riverside 1 and proposed Riverside 2. These may be developed simultaneously, or a staggered project development, with the first facility coming on-line some time prior to the second.

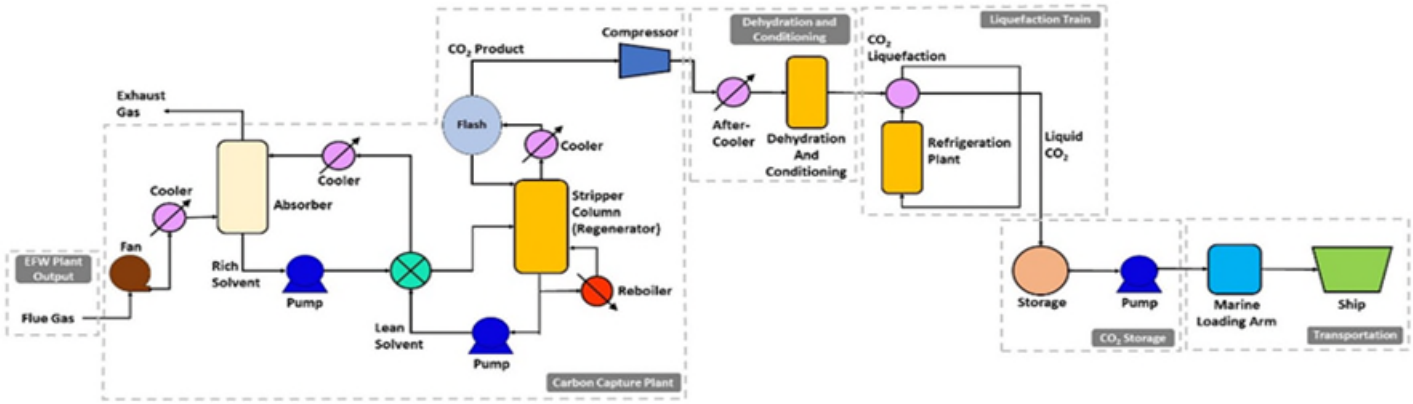
2.1.5 The captured carbon dioxide from the stripper column would then be compressed, dehydrated, liquefied and routed to on-site buffer storage, prior to ship loading. Depending on the purity of CO_2 exiting the capture facilities and the compositional specification required by the CO_2 transportation and storage facility operators, additional CO_2 conditioning (e.g., oxygen scavenging) may be required in order to achieve the required specification; this will be determined as the project moves forward. Matching the two-facility philosophy of the capture plant, two 50% capacity processes of compression, dehydration and liquefaction shall be employed.

2.1.6 Electrically-driven compressors would be utilised to compress the CO_2 to the required pressure for liquefaction and storage. The electrical power utilised by these compressors, and all other electrical equipment within the capture plant, would be supplied from the power generated by Riverside 1 and Riverside 2.

2.1.7 CO_2 would be exported via ship (as discussed below) as a semi-pressurised refrigerated liquid. Therefore, the captured CO_2 stream must be liquefied on site. A packaged refrigeration unit, using a suitable refrigerant to match the required CO2 liquefaction and storage temperature, would be utilised.

2.1.8 The liquefied CO_2 would then be routed to on-site buffer storage. The required storage capacity would be dependent on the cargo volumes of the ships utilised to transport the CO_2 to the selected storage site(s) (as discussed below); it is anticipated that the storage volume would be based on 150% of the maximum cargo volume, allowing sufficient buffer volume to allow for a delayed ship without having to suspend operation of the CO_2 capture facilities.

2.1.9 A simplified flow diagram of the capture, liquefaction and storage process is shown below:



2.1.10 Cory is also exploring the possibility of a non-solvent-based technology approach, which would involve a different process of increasing the concentration of CO_2 from the flue gas stream. This would not require a stripper column but would still require heat exchange provision and plant for processing and conditioning. For the purposes of this application, Cory is therefore seeking a Direction which provides for the full range of carbon capture technologies being developed by the market.

2.1.11 CO_2 from buffer storage would be pumped to the jetty via insulated pipework and loaded onto ships via the Marine Loading Arms.

2.1.12 The CO_2 captured at the EfW facilities would be exported via ship to a suitable storage location. Several shipping scenarios have been considered including shipping to storage sites with vessels sizes ranging from 1,000m^3 to 30,000m^3. Direct shipping has to date been considered the preferred option using 10,000m^3 vessels but this will be considered further as the Scheme progresses.

2.1.13 Potential storage locations have been identified in the North Sea area. Within the UK, there is the potential to utilise one of the UK clusters which are establishing storage sites offshore. In addition to the UK clusters, there is the potential for export to the Northern Lights project, the proposed transport and storage facility in Western Norway. Cory has signed a number of Memorandum of Understandings with the potential storage locations, including the Scottish Cluster, HyNet, Bacton, Humber Zero and the Northern

Lights JV to further develop these opportunities. The development of the proposed storage locations offshore is not part of the Scheme, although it is acknowledged that the 'downstream' impacts of shipping the carbon captured at the site would need to be considered as part of the EIA process for the Scheme.

2.1.14 A new and dedicated export structure within the River Thames would be required to export the CO_2. The loading platform would be installed on a new berth positioned adjacent to the existing Riverside 1 jetty and in close proximity to the on-site buffer storage.

2.1.15 Water depth of 8.0m would be required to provide access at all state of tides. Dredging would be required to provide access to/from the Thames shipping channel to the proposed export facilities including the creation of a berthing pocket.

2.1.16 The liquified CO_2 would be loaded through one or more manifolds located around the centre of the vessel. The loading platform would contain the marine loading arms to load the CO_2 to the vessel. The loading equipment would be sized so that vessel turn around is less than 24hours.

2.1.17 The export berth would also include a series of berthing and mooring dolphins around the central loading platform. The mooring layout would be established to accept the range of expected vessel sizes.

2.1.18 Access to the loading platform would be provided via an open piled trestle. The trestle structure would accommodate pipelines linking the export structure to the landside facilities and would also provide vehicle and pedestrian access.

2.2 The Hydrogen Project will include the following:

2.2.1 Low carbon/renewable/carbon negative electricity would be supplied to the hydrogen production site from the EfW facilities.

2.2.2 Water would also be supplied to the hydrogen production site, with the water for the electrolysers treated in a water treatment facility to produce de-ionised water prior to supplying the electrolysers. Dependent on the water supply (which could be abstraction or use of the local supply), there is potential to require local water storage on site.

2.2.3 Hydrogen would be produced from the electrolysis of water, using either an alkaline or proton exchange membrane ("**PEM**") electrolyser. Electrolysers consist of two electrodes (anode and cathode) separated by an electrolyte, with the electrolyte acting as a medium to transport ions from one electrode to the other. This movement enables the splitting of water into its constituent parts, allowing the production of both hydrogen and oxygen from water and an electrical current. Alkaline electrolysers require a liquid electrolyte solution (typically potassium hydroxide, "**KOH**") whereas PEM electrolysers have a solid electrolyte.

2.2.4 The new facility would have up to 50MWe electrolyser capacity. Prior to reaching the electrolysers the low carbon electricity would pass through transformer rectifiers, located within the same building or container as the electrolysers.

2.2.5 The produced hydrogen would need to be dehydrated, and dependent on the purity of hydrogen produced from the electrolysers, further purification of the hydrogen may be required.

2.2.6 Oxygen, as produced by the electrolyser plant, would be stored and transported off site to supply industries with an oxygen demand, should such a demand be identified. In addition, a cooling system would be required.

2.2.7 The produced hydrogen would need to be stored on site prior to onwards transport or use, thus must be compressed to high pressure to enable a greater storage mass in a smaller footprint. Post compression, the hydrogen would be routed to high pressure storage on site. The storage volume would be dictated by the onward transport and use cases of the hydrogen.

2.2.8 In developing these proposals, Cory has been aware that hydrogen is core to alternative fuel considerations being developed by industry. The hydrogen produced at the site could therefore be used to decarbonise road and river transport, with the potential for on-site fuelling and bunkering facilities for HGVs and river vessels and export of hydrogen to other facilities. The amount of hydrogen produced could be used to fuel up to 675 HGVs per day or a combination of HGVs and river-going vessels.

2.2.9 In that context, the hydrogen could be used in a hydrogen refuelling station on site and/or bunkering facilities in near proximity, and/or exported from site to local transport demand nodes and Cory is currently undertaking market demand analysis to determine the most appropriate approach(es) to be taken forward. Transport options currently being considered include:

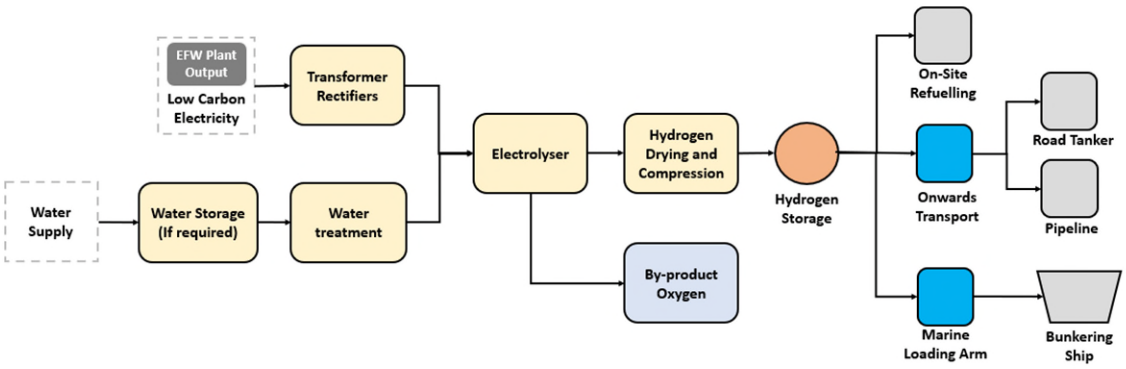
(a) pipeline;

(b) loaded into hydrogen tube trailers in a new road tanker loading facility; and/or

(c) loaded into hydrogen transport vessels/barges in a new loading facility on the River Thames.

2.2.10 To further link the different aspects of the Scheme, Cory is also considering constructing thermal storage facilities next to the electrolyser to store heat from both hydrogen production and the heat network.

2.2.11 A block diagram of the proposed hydrogen facilities is shown below:



2.3 The extent of the area considered for the new infrastructure which make up the Carbon Capture and Storage Project and the Hydrogen Project is presented in the 'area of interest' shown within the red line on the plan enclosed with this request.

3. REASONS FOR SUBMITTING THE REQUEST FOR THE DIRECTION

The Carbon Capture and Storage Project - NSIP Uncertainty

3.1 Cory is of the view that the Carbon Capture and Storage Project as described in this request should be considered to be nationally significant.

3.2 This is on the basis that:

3.2.1 Section 14 of the Act sets out what projects will be Nationally Significant Infrastructure Projects ("**NSIPs**") and includes (at s14(1)(a)) "*the construction or extension of a generating station*". That categorisation is subject to section 15, which provides that the construction or extension of a generating station is within section 14(1)(a) if the generating station is or (when constructed or extended) is expected to be:

(a) in England;

(b) does not generate electricity from wind;

(c) is not an offshore generating station; and

(d) its capacity is more than 50 megawatts.

3.2.2 In the case of the Scheme, it is considered that the proposed Carbon Capture and Storage Project would involve an extension to two generating stations (being Riverside 1 and Riverside 2) that meet the criteria above: they are in England, generate electricity from waste not wind, are not offshore, and each has a capacity over 50 megawatts (with Riverside 1 being consented under section 36 of the Electricity Act 1989 and Riverside 2 being consented under the Act).

3.2.3 "Extension" is defined in section 64 of the Electricity Act 1989 as follows: ""*extension", in relation to a generating station, includes the use by the person operating the station of any land [or area of waters] (wherever situated) for a*

purpose directly related to the generation of electricity by that station and "extend" shall be construed accordingly."

3.2.4 In contrast to the thresholds for other NSIPs under the Act, the provisions with respect to generating stations do not specify a threshold for an extension. An extension is therefore not restricted to a specified increase in a generating station's footprint, capacity or output. That in turn means that an extension of a generating station is not restricted in any way that relates to its footprint, capacity or output. Further, the definition of "extension" is not intended to be exhaustive; it only "includes" the activity which is described. That in itself militates against a narrow interpretation of "extension".

3.2.5 It is therefore clear, that the word "extension" is intended to be interpreted more widely and includes any land use or area of waters "*for a purpose directly related to the generation of electricity by that station*".

3.2.6 It is considered by Cory that the proposed Carbon Capture and Storage Project is a land use that is "*for a purpose directly related to the generation of electricity by that station*". Nothing in the definition of "extension" in the Electricity Act 1989 requires that the purpose of an extension is intended to be solely the production of electricity.

3.3 In this context, Cory considers that, as the proposed Carbon Capture and Storage Project is being designed and promoted as one that would capture at least 90% of the emitted CO_2 from Riverside 1 and Riverside 2's waste processing and electricity generation function, the apparatus and development required to capture that CO_2 and compress and liquefy it is an integral part of the two generating stations. Flue gas will be taken directly from Riverside 1 and Riverside 2 and supplied to the carbon capture plant, while electricity, steam and utilities consumed by the carbon capture plant will be directly supplied from Riverside 1 and Riverside 2. The carbon capture plant will share a common control system/control room and operations personnel; and will be managed as a common entity with Riverside 1 and Riverside 2. Accordingly, it is considered that these elements of the Scheme are an "extension" to both Riverside 1 and Riverside 2.

3.4 Furthermore, the proposed Carbon Capture and Storage Project will involve modifications to the energy production aspects of Riverside 1 and Riverside 2. In particular, modifications to the steam cycle of Riverside 1 and Riverside 2 may be required in order to facilitate extraction of suitable quantities of steam at the necessary pressure and temperature to provide heat to the carbon capture plant for solvent regeneration.

3.5 However, Cory recognises that the extent to which matters are said to be an 'extension' of a generating station will need to be considered on a case-by-case basis, depending on whether it is considered that the interrelationship between the existing generation station and the new infrastructure is suitably connected, such that it can be considered to be an 'extension'. In this particular case, Cory recognises that the Scheme differs from that promoted by Drax (the Bioenergy with Carbon Capture and Storage project). Based on the application materials, the Drax carbon capture scheme is comprehensively interwoven within the existing generating station and has various modifications and improvements to the existing generating station's core components that generate electricity, which is a different technical design and solution to Cory's Scheme.

3.6 Cory notes that in accepting the Drax project for Examination as a NSIP, the Planning Inspectorate accepted that, in that particular case, there was considered to be a sufficient interrelationship; however there is no guarantee that the same approach would be taken for a different project such as the Scheme.

3.7 Cory therefore acknowledges that third parties may seek to debate an interpretation of section 15 of the Act and section 64 of the Electricity Act 1989 and argue that, in the case of the proposed Carbon Capture and Storage Project, it is not an "extension" and thus not an NSIP. This risk needs to be balanced against the fact that section 160 of the Act makes it a criminal offence for a person to carry out development for which development consent is required under the Act without a DCO in place.

3.8 In this latter context, absent the undertaking of the section 35 process, Cory would need to proceed on the basis that proposed Carbon Capture and Storage Project constitutes a NSIP; and would not have certainty whether this is the correct interpretation until the application came to be considered for acceptance by the Planning Inspectorate, who may then decide that it is not in fact a NSIP.

3.9 As such, given the financial outlay required to reach submission of a DCO application, and the reputational risk to Cory of the above interpretation being incorrect and the application therefore not being accepted, Cory is bringing forward this request for a Direction to ensure these risks are avoided and to bring certainty to all parties that the proposed Carbon Capture and Storage Project either:

3.9.1 does in fact, in this particular case, constitute a NSIP (by the Secretary of State not making a Section 35 Direction for that sole reason); or

3.9.2 does not in fact, in this particular case, constitute a NSIP; but is brought into the Planning Act 2008 regime via a section 35 Direction being made.

<u>The Hydrogen Project – NSIP Status</u>

3.10 Cory considers that there is no doubt that the hydrogen production aspects of the Hydrogen Project do not automatically constitute a NSIP as they do not fall within the categories of such development set out in sections 15-21 of the Planning Act 2008; being the facility for the production of a gas.

3.11 However, it is considered that it is a project in the 'field' of energy (s35(2)(a)(i)), given that it will involve the production of a gas, hydrogen; and noting that:

3.11.1 matters relating to gas have consistently formed part of Energy Acts brought forward by the Government (e.g. Energy Act 2008 and Energy Act 2013);

3.11.2 gas reception facilities and transporter pipe-lines are within the category of Energy products in sections 19 and 20 of the Planning Act 2008; and

3.11.3 hydrogen is considered as a gas in the UK's Hydrogen Strategy and in the Gas Act 1986 (section 48 defines it as "*any substance in a gaseous state which consists wholly or mainly of…hydrogen*").

3.12 It is therefore considered that hydrogen production is something that could be brought into the Act regime via a section 35 Direction.

3.13 Furthermore, Cory considers that on the facts of the Scheme, the hydrogen production facilities can only be consented by a DCO if they are brought forward as the NSIP, rather than Associated Development under section 115 of the Act.

3.14 This is because, in Cory's view, the Hydrogen Project could be brought forward as its own project and as an aim in and of itself. Whilst Cory is committed to creating a decarbonisation 'hub' in and around the EfW facilities, thus enabling the production of green hydrogen, it could be the case that due to market demand, the Hydrogen Project is brought forward before the Carbon Capture and Storage Project. The Hydrogen

Project does not support the Carbon Capture and Storage Project, and does not require the Carbon Capture and Storage Project to be brought forward.

3.15 As such, it is considered that it would be difficult to make the case that the hydrogen elements meet the tests set out in the DCLG Guidance on Associated Development. For consenting purposes, therefore, the Hydrogen Project can only be brought forward as either development for which development consent is required within the Scheme, or as a separate planning application under the Town and Country Planning Act 1990.

3.16 However, Cory considers that the latter course would:

3.16.1 not befit the nationally significant status of the Scheme;

3.16.2 not recognise that whilst they are two distinct projects, the Carbon Capture and Storage Project and the Hydrogen Project, together with Riverside 1 and Riverside 2, constitute a nationally significant and exciting opportunity to create a decarbonisation hub;

3.16.3 as discussed below, require a number of other consents which could prevent timely delivery of the consent and, alongside the Carbon Capture and Storage Project, would involve a complex web of consents where only one could be possible, providing uncertainty also to statutory bodies; and

3.16.4 have limited benefit to project delivery overall as assessments will be required for the Scheme as a whole for environmental impact and habitat regulations purposes.

3.17 As a private company, Cory stands ready to assist the Government in reaching its ambitions for a net zero economy and a decarbonised industrial future in an efficient and expeditious manner through the delivery of the Scheme. However, Cory needs to minimise the financial risks in doing so, to ensure that the private funding that will enable the Scheme's benefits to materialise is able to be accessed as soon as possible.

3.18 This request is therefore made to ensure that there is certainty in the consenting process that needs to be followed for the Scheme as a whole, to enable this nationally significant infrastructure to be delivered.

Consents Required

3.19 It is also noted that notwithstanding the need for consenting certainty, Cory desires that the Scheme is part of the Planning Act 2008 regime not only because of its national significance as set out at section 5 of this request, but also because of the range and number of consents that would be otherwise required for each of the Carbon Capture and Storage Project and the Hydrogen Project, absent a DCO, but which can be included within the ambit of a DCO.

3.20 These include:

3.20.1 **Planning Permission**: All aspects of the Scheme would be highly likely to be subject to call-in by the Mayor of London, and in any event is potentially referrable to him under Category 3E of the Town and Country Planning (Mayor of London) Order 2008. Part of the proposed application site also forms part of the Safeguarded Wharf known as Middleton Jetty, which requires consultation with the Mayor of London before planning permission is granted by a local planning authority. As such, any planning application for either of the Carbon Capture and Storage Project and the Hydrogen Project, or indeed

both of them, would be subject to uncertain timelines as part of the Mayor of London's processes.

3.20.2 **Marine Licence**: The Scheme will involve the construction of a new marine export jetty and the removal of an existing jetty for the storage and transport of the captured carbon for the Carbon Capture and Storage Project; and marine works for the construction of hydrogen bunkering and loading facilities as part of the Hydrogen Project. The activities will require a marine licence from the Marine Management Organisation, something that could otherwise be captured within a DCO as a 'Deemed' Marine Licence.

3.20.3 **River Works Licence**: This will be required pursuant to the Port of London Authority Act 1968 (the "**1968 Act**") for the Carbon Capture and Storage Project marine loading facilities and the Hydrogen Project bunkering and marine loading facilities and works to existing jetties (and associated marine activities). As seen in DCOs such as the Silvertown Tunnel Order 2018 and the Port of Tilbury (Expansion) Order 2019, it is possible for DCOs to deal with the regulatory and consenting requirements of the Port of London Authority within a DCO, negating the need for separate River Works Licences.

3.20.4 **Flood Risk Activity Permit**: As the Scheme will take place in and adjacent to a main river, a flood risk activity permit would otherwise be required under the Environmental Permitting (England and Wales) Regulations 2016. This is something often disapplied through DCOs, with such controls replaced with the text of Protective Provisions for the Environment Agency.

3.20.5 **Compulsory Purchase Order**: All aspects of the Scheme will require third party land. Whilst Cory will expend considerable efforts to reach voluntary agreements with affected landowners, it is possible that this will not be able to be achieved and that compulsory acquisition powers will be required. Absent a DCO, a separate Compulsory Purchase Order under the Electricity Act 1989 would be required.

3.20.6 **Public Right of Way Diversion Order**: The Scheme will involve building across the Thames Path to facilitate the construction of the proposed jetty and pipework towards it for the Carbon Capture and Storage Project and to provide connections to the Hydrogen Project bunkering and marine loading facilities. This will involve temporary diversions and potentially a permanent diversion. Such matters can be included in a DCO; and so absent such an Order, would have to be obtained separately.

3.21 A plethora of consents is therefore required in order to bring forward each of the Carbon Capture and Storage Project and the Hydrogen Project. Absent a DCO, the nationally significant benefits of both projects are highly likely to be delayed, as each regulatory authority will consider the merits of the relevant consent afresh and in a range of different statutory and non-statutory timescales for each of the projects.

3.22 Cory therefore seeks the certainty of the timescales of the Planning Act 2008 regime for the Scheme, enabling there to be efficiencies in each of the projects and, importantly, also both of them together, where all issues in the formation of a decarbonisation hub are considered in one setting and the principle of development is accepted if the DCO is granted.

4. QUALIFYING CRITERIA

4.1 Further to all of the above the above, and in respect of the principles set out in sections 35 and 35ZA of the Act concerning a qualifying request and a direction, Cory confirms that:

4.1.1 all elements of the Scheme for which a direction is sought that they should be considered as 'development for which development is required' are in the field of energy (s35(2)(a)(i)), as they will facilitate the capture, storage and transfer of carbon emitted as a direct consequence of the energy generated by Riverside 1 and Riverside 2 and enable the production of low carbon hydrogen gas;

4.1.2 the Scheme will be wholly in England (s35(2)(b) and s35(3)(a));

4.1.3 the Scheme is a project of national significance (s.32(c)) for the reasons set out below;

4.1.4 no application for a consent or authorisation mentioned in section 33(1) or (2) of the Act has been made in respect of the works which make up the Scheme (in the context of section 35ZA(8) and (9)); and

4.1.5 the development to which the request relates is specified in Annex One and Annex Two of this document (s.35ZA (11)).

4.2 In preparing this qualifying request, Cory has taken guidance from directions previously made by Secretary of States in all fields. Cory has also had regard to the policy statement issued by the Department of Communities and Local Government (as was) in relation to the extension of the Planning Act 2008 regime to business and commercial projects as an indication of the types of matters that can be considered as supporting criteria for assessing national significance within the context of the Act.

4.3 To assist the Secretary of State and provide clarity as to what Cory is requesting, a draft section 35 direction has been included at Annex Two; this reflects the analysis set out in Annex One.

5. NATIONAL SIGNIFICANCE OF THE SCHEME

Achievement of net zero

5.1 The delivery of net zero is of national and international significance and indeed is of fundamental importance to the future of the UK economy and human survival, as recognised by the Paris Agreement, COP26, and the passing into law of the net zero target.

5.2 As the recent International Panel for Climate Change (IPCC) report indicates, accelerated action is required to adapt to climate change, at the same time as making rapid, deep cuts in greenhouse gas emissions[2]. This is particularly the case in the context that a 'temporary overshoot' of the previous 1.5^0C 'target' for avoiding large scale climate change impacts is likely to occur sometime between 2030 and 2052[3].

5.3 In this context, the Carbon Capture and Storage Project and the Hydrogen Project will each be able to play a significant part in the UK's contribution to deliver net zero with the Carbon Capture and Storage Project having the aim of capturing at least 90% of carbon emissions from Riverside 1 and Riverside 2 and, in so doing, potentially delivering up to 1.49 million tonnes of CO_2 emissions savings per annum and the Hydrogen Project potentially producing green hydrogen and performing a role as a regional hydrogen hub to decarbonise commercial vehicles and vessels travelling in and out of London.

[2] [redacted]

5.4 The UK Government has recognised that the installation of new renewable electricity production can only go 'so far' to meet the net zero target and avoid major climate change impacts in the time available, which is further heightened in the context of the IPCC report. As such, a key part of achieving net zero and mitigating the future impacts of climate change, as recognised by the Government in the Energy White Paper, the Clean Growth Strategy (including its CCUS Action Plan) the Industrial Decarbonisation Strategy and the draft Energy National Policy Statement and most recently the British Energy Security Strategy, is through the introduction of carbon capture storage infrastructure, both to decarbonise existing industrial emitters, including energy providers; and to facilitate provision of negative emissions to offset industries that cannot decarbonise completely. This builds on the Clean Growth Strategy, which stated that '*there is a broad international consensus that CCUS has a 'vital future role in reducing emissions*'.

5.5 It is also noted that in developing the Carbon Capture and Storage Project over the rest of this decade, Cory will also help the Government to drive forward its CCUS Action Plan, which seeks to have CCUS at scale by the 2030s, in which respect the Carbon Capture and Storage Project will be 'ahead of the game'.

5.6 These drivers for CCUS development have been reflected in the draft Energy National Policy Statement:

5.6.1 "*the Committee on Climate Change states [that] CCS is a necessity not an option*" (paragraph 3.5.1); and

5.6.2 "*It will be difficult to completely decarbonise all sectors of the economy, with aviation and agriculture viewed as particularly challenging. Where sectors are not completely decarbonised, we will need negative emissions to offset the residual emissions in those sectors. Capturing and storing emissions from bioenergy or directly from the air using CCS infrastructure provides a source of negative emissions*"(paragraph 3.5.7).

5.7 In this context, it is notable that by 2026 (when construction of Riverside 2 is expected to complete), the combined emissions of Riverside 1 and Riverside 2 will be responsible for the single largest source of EfW derived CO_2 emissions in the UK; and one of the largest in the world, being up to 1.66 million (Mt) of CO_2 per year. It is therefore a key emitter within the UK.

5.8 Through the proposed CCUS processes proposed to be deployed, the Scheme is designed to capture at least 90% of these emissions, being 1.49Mt CO_2 per year. Further, with the feedstock to the EfW facilities comprising >50% biogenic content, the Carbon Capture and Storage Project will result in net-negative CO_2 emissions of around 0.66Mt per year of CO_2.

5.9 By way of comparison, Net Zero Teesside, a project which has obtained a section 35 Direction, is an 860MW power project that would capture 2 million tCO_2e per year from that plant (and an additional 2 million from other cluster emitters 'plugging into' the provided infrastructure).

5.10 As such, the CCUS elements of the Scheme is comparable to a much larger scheme that is part of a cluster, therefore performing a large scale but efficient saving in emissions.

5.11 However, it should also be noted that whilst London is not a formal 'Cluster' within the Government's decarbonisation strategies, the benefits of the Scheme go beyond the

savings derived directly from carbon captured from Riverside 1 and Riverside 2. For example, there could be an opportunity for the carbon captured by the Scheme to be 'consolidated' at other proposed future facilities such as Project Cavendish on the Isle of Grain.

5.12 As such, the Scheme can be seen as part of a regional effort to enable the decarbonisation of emissions across the South East, adding further credence and an additional dynamic to the Government's aspirations for CCUS rollout in the UK.

Hydrogen Project

5.13 The Government has also recognised that the production of low carbon gas is just as important as the production of low carbon electricity – both sources of energy are needed for industry, commerce and residential purposes. This was recognised in the Energy White Paper and Hydrogen Strategy where it was noted that that in order to decarbonise the energy system fossil fuels must be replaced with clean energy technologies such as hydrogen, as set out in the Prime Minister's Ten Point Plan which designated hydrogen as a key priority area. The Government noted that Hydrogen is a gas that can be used as a fuel without emitting harmful greenhouse gasses and will therefore be '*critical in reducing emissions from heavy industry, as well as in power, heat and transport*'.

5.14 This sentiment is reflected in the draft Energy National Policy Statement, where it is stated that:

5.14.1 "*there is an urgent need for all types of low carbon hydrogen infrastructure to allow hydrogen to play its role in the transition to net zero*"(paragraph 3.4.16); and

5.14.2 "*producing hydrogen through water electrolysis with low carbon power ('green' hydrogen) does not rely on CCS but the government's view is that both are need to achieve the scale of low carbon hydrogen production required for net zero*" (paragraph 3.5.4).

5.15 While it is recognised that the hydrogen elements of the Scheme involves less than 50MWe of production, in the context of the overall 5GW target set out in the Hydrogen Strategy, it is considered that the Scheme will still make a sizeable contribution to the Government's rollout of this technology on a regional and national basis by being a sizeable proof of concept in a sustainable location in an economic hub. It will therefore be able to help in the achievement of the Government's goal to develop a UK hydrogen economy and demonstrate global leadership in low carbon hydrogen, pursuant to its Hydrogen Strategy.

5.16 Furthermore, Cory's location on the River Thames and on the outskirts of London means that its hydrogen facilities would be able to perform a role as a regional hydrogen hub to decarbonise commercial vehicles and vessels travelling in and out of London.

Conclusion

5.17 Both aspects of the Scheme are each therefore fully aligned with the Government's policies for meeting the net zero challenge and responds to the IPCC's challenge to countries to deliver carbon reduction as soon as possible.

5.18 Furthermore, it is also noted that as well as the environmental benefits of meeting the net zero challenge, the Government also sees the development and deployment of CCUS and low carbon hydrogen infrastructure as an economic benefit, with an aim to

become a global leader in the development of CCUS and hydrogen infrastructure, as recognised in its Ten Point Plan for a Green Industrial Revolution.

5.19 Cory understands that the Scheme will be one of the first in the world to apply CCUS and hydrogen production to EfW infrastructure and will therefore help in the achievement of that aim and will provide a test bed for EfW plants to be an 'energy intensive' form of power production that can become greener through the deployment of CCUS and low carbon hydrogen production.

Input and Electricity Source Emissions

5.20 The national significance of the volume of waste that will produce the carbon that is to be captured by the Carbon Capture and Storage Project and used as a source of supply to enable the production of electricity used for the Hydrogen Project should also be noted.

5.21 Riverside 1 currently receives residential waste from Western Riverside Waste Authority (comprising the London Boroughs of Hammersmith and Fulham, Kensington and Chelsea, Lambeth, and Wandsworth), Westminster, Tower Hamlets, Bexley, and the City of London and receives commercial waste from across London and the South East.

5.22 Once built, Riverside 2 also anticipates receiving waste from across London and the South East, further to the need identified in reports such as the 'Tolvik Report'[4] entitled '*Residual Waste in London and the South East: Where is it going to go?*', which identified that there is a significant deficiency in London and the South East's waste management infrastructure. The Secretary of State, in making the DCO for Riverside 2, agreed that there is a need for infrastructure to fill that gap.

5.23 Collectively, Riverside 1 and Riverside 2 are anticipated to sustainably and hygienically process up to 1.655 million tonnes of residual waste per annum from London and the South East. By ensuring that the carbon dioxide arising from the incineration of that waste is captured, the Carbon Capture and Storage Project will help reduce the carbon dioxide emissions of the at least 3 million people producing that waste.

5.24 As such, Riverside 1 and Riverside 2 will create energy from waste (and capture the embodied carbon within that waste) from a large number of households and businesses across a number of authority areas and regions. In capturing the carbon dioxide from this range of input material, the Scheme will therefore be capturing emissions that would otherwise be released by Riverside 1 and Riverside 2 (or alternatively via methane emissions from landfill or carbon emissions from an alternative EfW facility if not being processed at Riverside).

5.25 Similarly, it is the case that the Hydrogen Project will be able to use the energy created from the waste produced in these highly populated areas for low carbon hydrogen purposes, decarbonising the waste lifecycle of this population in a different, significant fashion.

5.26 The Scheme will therefore provide an important contribution to reducing the carbon emissions of the several million people Cory services in London and the South East.

Heat Network

5.27 Cory has been working closely with the London Borough of Bexley, the GLA and Vattenfall to ensure that Riverside 1 and Riverside 2 play a key role in the development of the Riverside Heat Network in Bexley and Greenwich, another key part of the

[redacted]

Government's decarbonisation agenda, which is supported by the Heat Networks Investment Project.

5.28 Even without carbon capture technology installed, heat from Riverside 1 and Riverside 2 is expected to serve over 21,000 homes and will act as a lynchpin for Vattenfall's larger heat network plans in the region.

5.29 With the Carbon Capture and Storage Project in place, this will enable the heat for this large number of homes to be carbon negative, thus further improving the sustainability of heat supply to those homes.

5.30 The sustainability credentials of the network would similarly be boosted if the process used to create this heat can also play a part in the production of low carbon hydrogen through the Hydrogen Project.

5.31 Furthermore, the processes of the Scheme offer the opportunity for additional heat recovery, thereby offsetting the heat demand from the capture plant. Overall, it is anticipated that there will be a net increase in the heat available for supply to the Riverside Heat Network.

Conclusion on National Significance

5.32 The Government and the international community have recognised the importance of achieving net zero and the range of methods that will need to be deployed to achieve this.

5.33 The Government has recognised the crucial role that CCUS will play as one of those methods. The Carbon Capture and Storage Project's status as a CCUS scheme therefore algins with Government's priorities for the national economy.

5.34 The Government also recognises the need to replace fossil fuels with clean energy and the role that low carbon hydrogen will play in supporting the decarbonisation of the UK economy in providing greener, flexible energy across power, heat and transport. The Hydrogen Project will help this be achieved.

5.35 This Scheme, with a budget likely to be of many hundreds of millions of pounds, will achieve a high level of carbon emission savings and produce clean energy in the form of low carbon hydrogen in the context of one of the single highest emitting industries and locations in the UK, all whilst continuing to deal with the waste needs of a multi-million sized population across London and the South East.

5.36 Thus, whilst each of the Carbon Capture and Storage Project and the Hydrogen Project are nationally significant in their own right, the Scheme as a whole should be considered as nationally significant and thus able to benefit from the streamlined DCO regime that will enable the individual and collective benefits of both parts of the Scheme to be realised.

6. CONCLUSION

6.1 Cory seeks a section 35 Direction to ensure that there is certainty in the consenting process to bring each aspect of this much needed Scheme forward.

6.2 This approach (and the Carbon Capture and Storage Project itself) has the support of a number of stakeholders, as seen in the letters of support enclosed with this application (at Annex Three) from: the Port of London Authority and Western Riverside Waste Authority.

6.3 Obtaining a Direction will ensure that:

6.3.1 there are no wasted costs in bringing forward an application in an incorrect manner;

6.3.2 the wide array of consents that will be required for each and both parts of the Scheme will be able to dealt with in one consolidated, efficient and expeditious process; and

6.3.3 most importantly of all, enable two clearly nationally significant projects to be consented in the most appropriate fashion which reflects their status.

6.4 We trust therefore that all of the above provides sufficient information for the purpose of enabling the Secretary of State to decide—

6.4.1 whether to give the direction requested under section 35 of the Planning Act 2008 ("the Act"), and

6.4.2 the terms in which it should be given.

6.5 Should the Secretary of State require further details, Cory will happily provide any additional information that may be required.

Annex One: Proposed Scheme Description

Summary

Carbon Capture Project: The installation of carbon capture infrastructure at the Riverside 1 and Riverside 2 energy from waste plants in Belvedere, Kent; through the application of solvent to the flue gas produced by those plants; and the processing and conditioning of the captured carbon. This process will require plant to facilitate the chemical absorbent and regeneration activities, including the necessary exchanges of heat, water and steam. Following the processing and conditioning of the captured carbon, it will be stored awaiting the arrival of a transfer ship, which will berth at the newly create marine export facility on the River Thames, which will include dredging and the installation of a new jetty and associated dolphins.

Hydrogen Project: The construction of hydrogen production facilities through the electrolysis of treated water, using electricity produced by the adjacent energy from waste projects. The hydrogen would then be dried and compressed and stored on site in either terrestrial or marine facilities pending its end use, which may involve marine or HGV loading and fuelling using infrastructure on-site, or piping or HGV transfer of off site.

The proposed Projects of National Significance:

Scheme Feature	Description
Carbon Capture and Storage Project	
Carbon Capture Equipment	Heat Exchange Plant and associated cooling facilities to provide for the appropriate levels of heat, water and steam through the carbon capture process. Chemical Absorber Plant for the absorption of flue gas by the chosen solvent or other plant that increases the concentration of CO_2 from the flue gas stream. Chemical Regenerator Plant to undertake the separation of the chosen solvent and CO_2. Carbon Processing and Conditioning Plant for the compression, dehydration, liquefication and refrigeration of the captured carbon, driven by electricity.
Carbon Storage Equipment	Buffer storage provision to provide for onsite storage prior to transfer to ships. The required storage capacity will be dependent on the cargo volumes of the ships utilised to transport the CO_2 to the selected storage site(s).
Hydrogen Project	
Hydrogen Production Facilities	Electrolyser Transformer Rectifiers Water Treatment Plant Hydrogen Drying and Compression Plant

The Associated Development proposed but not limited to:

Element	Description
CCUS Marine Export Facility	A new jetty with associated export structures, pipework and marine loading arms. Dredging. Berthing and Mooring Dolphins. Removal and modification of existing jetties. Any associated modifications to river wall.
Hydrogen Process Storage Facilities	Oxygen Storage Plant Water Storage Plant
Hydrogen Storage and Use Facilities	High Pressure Storage Facilities Hydrogen Refuelling Station Hydrogen bunkering and/or loading facilities on the River Thames and associated dredging, berthing and mooring dolphins, removal and modification of existing jetties and any associated modifications to river wall. Hydrogen Tanker Loading Facility
Associated pipework , cables and ductwork	Pipework, cables and ductwork (including associated fans and valves) to move electricity, oxygen, carbon, solvent, and associated cooling, heat, water and other utility requirements between: • the different elements of the Carbon Capture Equipment, the Carbon Storage Equipment and the existing and proposed energy from waste plants on site; • the different elements of the Carbon Capture Equipment; • the Carbon Capture Equipment and the Carbon Storage Equipment; • the Carbon Storage Equipment and the proposed marine export facility; • the CCUS elements of the Scheme and the hydrogen elements of the Scheme; • the different elements of the hydrogen elements of the Scheme; • from the hydrogen facilities on site to an offsite location.
Highways, streets and public right of way diversions and modifications	Highways, streets and public right of way diversions or modifications which may be required either temporarily or permanently, to facilitate the scheme.

Utilities Works	Diversions to existing apparatus which may be necessary as well as change to the existing electrical, gas and water connections to national networks from the site.
Biodiversity, heritage and landscape mitigation	Mitigation works required to mitigate the effects of the scheme.
Temporary worksites	Construction compounds and temporary working space to facilitate the construction of the Scheme.

Annex Two: Draft Section 35 Direction

DIRECTION BY THE SECRETARY OF STATE UNDER SECTION 35(1) OF THE PLANNING ACT 2008 (AS AMENDED) RELATING TO THE RIVER THAMES FLOOD ALLEVIATION SCHEME

By [*email/letter*] to the Secretary of State received on [*date 2022*] Cory Environmental Holdings Limited ("**the applicant**") formally requested that the Secretary of State exercise the power vested in the Secretary of State under section 35(1) of the Planning Act 2008 (as amended) ("the **Planning Act**") to direct that the proposed Cory Decarbonisation Project as set out in the applicant's [*email/letter*] and supporting submissions ("**the proposed scheme**") be treated as a scheme which includes two projects of national significance that are development for which development consent is required, as set out in Annex 1 of the [*email/letter*].

The Secretary of State has made a decision within the primary deadline set out in section 35A(2) of the Planning Act and wishes to convey that decision.

Having considered the applicant's request and the details of the proposed scheme, the Secretary of State is satisfied that:

- the proposed scheme incorporates projects which do not fall into the category of projects described in section 14 of the Planning Act 2008;
- that therefore the proposed scheme does not currently automatically fall within the definition of a "nationally significant infrastructure project" ("**NSIP**") and therefore it is appropriate to consider use of the power in section 35;

- the parts of the proposed scheme that are requested to be development for which development consent is required either are, or are part of, projects in the field of energy and will be wholly within England; and
- the applicant's request therefore constitutes a "qualifying request" in accordance with section 35ZA(1).

In coming to this conclusion, the Secretary of State notes that the proposed scheme relates to the construction of post combustion carbon capture, storage and transfer equipment; and the construction of hydrogen facilities and thus sits within one of qualifying infrastructure fields listed in section 35(2)(a)(i) – energy - of the Planning Act.

The Secretary of State notes that the proposed scheme encompasses the following projects:

A Carbon Capture and Storage Project including:

- Carbon Capture Equipment including:
  - Heat Exchange Plant and associated cooling facilities;
  - Chemical Regenerator Plant;
  - Chemical Absorber Plant; and

- Carbon Processing and Conditioning Plant;

- Carbon storage facilities; and

A Hydrogen Project including:

- Hydrogen production facilities including:
  - Electrolyser
  - Transformer Rectifiers
  - Water Treatment Plant; and
  - Hydrogen Drying and Compression Plant

  as set out under the “The Proposed Projects of National Significance” in Annex 1 of the [*email/letter*] (together "the **PNS developments**");

- the delivery of “associated development” (within the meaning of section 115(1)(b) of the Planning Act including, but not limited to, jetty facilities, dredging, hydrogen storage facilities, temporary working sites, temporary and permanent utilities and highway diversions and environmental mitigation ("the **associated development to the PNS developments**"); and

- ancillary matters ("the **ancillary development to the PNS developments**").

The proposed scheme does not include the construction of any dwellings as part of the PNS developments.

The proposed scheme can therefore be summarised as:

1. the PNS developments;

2. the associated development to the PNS developments; and

3. the ancillary development to the PNS developments.

all as detailed in the applicant's to the [*email/letter*] Secretary of State received on [*date 2022*].

The Secretary of State considers that the PNS developments are genuinely nationally significant and would:

- be complex and substantial, involving extensive infrastructure works and requiring multiple consents; and

- will benefit from the application being determined in a timely and consistent manner by the Secretary of State.

Furthermore, that each of the PNS developments would provide and support:

- the achievement of a net zero economy and the meeting of the challenge set by the IPCC to countries around the world;

- the achievement of the Government's policy objectives in the Energy White Paper, the Clean Growth Strategy, the emerging Energy National Policy Statement, the Industrial Decarbonisation Strategy and the British Energy Security Strategy (and in respect of the Hydrogen Project only, the Hydrogen Strategy); and that:

- the Carbon Capture Project would provide and support:

    - the decarbonisation of the single largest source of energy from waste derived CO_2 emissions in the UK;

    - deliver over a million tonnes of CO_2 savings per annum, providing a significant contribution to reducing the carbon emissions of the several million people across London and the South East whose waste passes through the Riverside 1 and Riverside 2; and

    - the achievement of a fully de-carbonised district heating network that crosses local authority areas; and

- the Hydrogen Project would provide and support the production of viable hydrogen facilities that would enable the provision of regular hydrogen supply to HGVs and vessels as both forms of transport seek to decarbonise.

THE SECRETARY OF STATE HEREBY DIRECTS that the **PNS developments** are to be treated as development for which development consent is required. Any development consent order application for the PNS developments may also include any matters that may properly be included in a development consent order (within the meaning of section 120 of the Planning Act) including ancillary matters (section 120(3)), associated development (within the meaning of section 115(2) of the Planning Act) and related housing development (within the meaning of sections 115(4B) and (4C) of the Planning Act).

THE SECRETARY OF STATE FURTHER DIRECTS in accordance with section 35ZA(3)(b) and (5)(b) of the Planning Act that:

- any proposed application for a consent or authorisation mentioned in section 33(1) or (2) of the Planning Act in relation to the PNS developments is to be treated as a proposed application for which development consent is required;
- the Overarching Policy Statement for Energy (EN-1) has effect in relation to an application for development consent under this Direction in a manner appropriately equivalent so far as the considerations and impacts described in EN-1 are relevant to the PNS developments.

This direction is given without prejudice to the Secretary of State's consideration of any application for a development consent order which is made in relation to all or part of the proposed scheme.

Signed by

[*name of person signing*]

[*position or role of named person*]

Authorised to sign on behalf of the Secretary of State

[*date*]

Annex Three: Letters of Support

London River House
Royal Pier Road
Gravesend
Kent DA12 2BG
United Kingdom
[redacted]

Gareth Leigh
Head of Energy Infrastructure Planning
Department of Business, Energy and Industrial Strategy
1 Victoria Street
London
SW1H 0ET

28 April 2022

Dear Mr Leigh

Cory decarbonisation project – Belvedere, London

I am writing to record the Port of London Authority's (PLA) in-principle support for the proposed Cory decarbonisation project at Belvedere.

From the briefings we have had on the scheme, we understand that this project is set to deliver a nationally significant level of carbon emissions reduction to the UK, both in site specific quantitative terms and linked to the carbon cycle more generally.

Cory's existing and planned energy from waste facilities on the Thames are key to the waste infrastructure of London and the South East, serving more than three million people. This planned decarbonisation initiative will enable the individual carbon emissions of those people, through an improved industrial process with carbon capture, to be significantly reduced.

For us, overseeing operations on the tidal Thames, the proposed marine export facility will lead to opportunities for industrial operations on the river. It will potentially become central to the operations across London and the South East that develop their own carbon capture facilities, and use the marine export facility at Cory for transfer to storage. The project features as a key future prospect in the long-term river development framework, *Thames Vision 2050*, on which we are concluding stakeholder consultation.

The proposed scheme will provide further sustainability benefits. Excess heat from the plant serves the Riverside Heat Network that will over time grow to 21,000 homes in South East London. Through the project, with 95% of the plant's carbon emissions captured, the Heat Network will become fully sustainable, a national example of what can be possible to meet the Net Zero challenge.

The broad scope of the project benefits – from industrial decarbonisation centred on the UK's largest port, to productive use of waste heat – suggest this project is one to be assessed through the Nationally Significant Infrastructure Projects regime. This would provide all parties and potential

partners, including us at the PLA, with certainty over timescale and process, while delivering the project in the most efficient manner.

We support the Cory decarbonisation project as nationally significant to achieving the concerted drive to Net Zero, embraced by industrial operators in the largest UK port and that it should be assessed as such.

Yours sincerely

Robin Mortimer
Chief Executive

Western Riverside Waste Authority

General Manager: Mark Broxup

Western Riverside Transfer Station,
Smugglers Way, Wandsworth, LONDON SW18 1JS

Telephone: 020 8871 2788 E-Mail: info@wrwa.gov.uk
Web: www.wrwa.gov.uk

Contact: Mark Broxup

Direct Dial: 020 8871 2788

Date: 3rd May 2022

Head of Energy Infrastructure Planning
Department for Business Energy and Industrial Strategy
Level 3, Orchard 2
1 Victoria Street
London
SW1H 0ET

For the Attention of Gareth Leigh

Dear Mr Leigh,

RE: PROPOSED CORY DECARBONISATION PROJECT

I write to record Western Riverside Waste Authority's support for the proposed Cory Decarbonisation Project ("the Project") at Belvedere.

The Authority is responsible for the management of waste delivered to it by the London Boroughs of Hammersmith & Fulham, Lambeth, Wandsworth and the Royal Borough of Kensington and Chelsea.

The Authority is committed to reducing emissions and helping to decarbonise its constituent boroughs. Our strategy has been focused on recycling, avoiding landfill, reducing waste, and minimising vehicle movements. Our waste is transported on the River Thames to Cory's modern, efficient (R1) Energy from Waste facility in Belvedere, which significantly reduces emissions and improves safety on London's roads. Our Boroughs' recycling is all processed at our modern facility in Wandsworth.

We now face a significant challenge to further decarbonise our waste in support of the Greater London Authority and the UK's respective 2030 and 2050 targets. Processing 1 tonne of waste creates around 1 tonne of CO_2, and our Boroughs deliver c300,000 tonnes of residual waste each year. This equates to roughly 300,000 tonnes of CO_2. We are extremely supportive of projects that give us options to fully decarbonise our Boroughs' waste.

With the exception of Cory, we are not aware of any company with a facility in London, or the South East, that has deliverable plans to capture and transport CO_2. Cory is uniquely positioned to use the existing infrastructure of the River Thames to transport CO_2 to subsea storage

locations. Most other energy from waste facilities in London and the South East are landlocked and do not have easy access to existing infrastructure to transport CO_2. It is hard to believe that there will be other options to decarbonise our waste, certainly by 2030, which is why we are writing to record our support for the Project.

Cory is also developing a new facility adjacent to its existing one. These facilities will form a key part of the waste infrastructure in London and the South East and will serve the waste recovery needs of over 3 million people. The Project would capture up to 1.5 million tonnes of CO_2, materially contributing not just to the Authority and the GLA's decarbonisation plans but also to the UK's 2050 net zero target.

In our view, it is therefore appropriate for a project of such significance and providing such an array of benefits to go through the NSIP regime. This would also enable all parties to benefit from the certainty of timescale and process (given the number of consents that may be required) that comes with that process, which would therefore allow the Project's wide-ranging benefits to be delivered in the most efficient manner.

The Authority supports this project, and its desire to go through the DCO process, and would therefore encourage the Department to ensure it can move expeditiously through the planning regime.

Yours sincerely,

[redacted]

MARK BROXUP
GENERAL MANAGER