



Cory Riverside Energy Park  
Local Impact Report (LIR)

May 2019

## Executive Summary

This purpose of this Local Impact Report (“LIR”) is to outline the anticipated impacts of the Cory Riverside Energy Park (the Scheme) pertaining to the London Borough of Havering (“the Council”) in light of the Principal Issues identified by the Examining Authority (“ExA”) in its ‘Rule 6’ letter dated 13<sup>th</sup> March 2019.

The Council expects to amplify the matters of concern set out in this LIR in due course.

There may also be matters of concern raised by the Council which are considered to be matters outside of the scope of the LIR, but which are both “important” and “relevant” pursuant to the determination of the Secretary of State under the Planning Act 2008. Therefore, they ought to be considered as such by the Examining Authority in the formulation of its recommendation, and by the Secretary of State in due course.

Broadly, the Council has considerable concerns about the potentially significant impact on air quality in certain areas within the Council which are located on the opposite side of the River Thames, across from the proposed Scheme. The negative effects on air quality, the resulting health impact on affected residents and the risk of irreversible harm to the natural environment in these areas is potentially significant and the true impact of the Scheme must be rigorously assessed in light of these important issues affecting the environment in the Council.

At the heart of these concerns is the Environmental Statement submitted in support of the Scheme application, more particularly the Air Quality Impact Assessment and its accuracy and reliability. The Council disagrees with several of the conclusions drawn, especially the likely impacts of air pollution on residents and terrestrial biodiversity during the operational phase of the proposed Scheme.

It is the view of the Council that these patent uncertainties add very significant weight to the importance of identifying clear monitoring and mitigation strategies to be built into the proposed Scheme but which remain absent. It is of concern that a robust monitoring and mitigation strategy for intended and non-intended impacts is not secured within the current iteration of the proposed draft Development Consent Order.

It is clear that the potentially materially damaging environmental impacts, if not resolved, places the proposed Scheme at fundamental odds with the Council's local plans, local designations and future development sites and urban renewal programmes.

As such, the Council anticipates making further representations through the Examination Hearing process, to seek the most favourable resolution for Havering residents and their environment in anticipation of its concerns being resolved. If not, the Council will maintain its objections to the current formulation of the Scheme.

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## 1.0 Introduction

The Scheme was designated as a nationally significant infrastructure project by Direction given by the Secretary of State for Business, Energy and Industrial Strategy under Section 35 of the Planning Act 2008 (as amended). This directed that the Scheme, as well as any associated matters, be treated as development for which development consent is required, pursuant to the details set out in the request for designation.

Cory Environmental Holdings Limited, trading as Cory Riverside Energy (“Cory”) has submitted an application (“the Application”) to the Secretary of State (via the Planning Inspectorate) under Section 37 of the Planning Act 2008 for a Development Consent Order (“DCO”) in the terms of the Application Form and within the area outlined in red. It is not known if the Application matches the terms submitted as above or is today broader. It expects Cory disclosure of the request to the ExA.

The Application was accepted by the Planning Inspectorate for examination on the 14 December 2018. On the 13<sup>th</sup> of March 2019, the Planning Inspectorate gave notice to the London Borough of Havering that the examination period is to commence with a Preliminary Meeting on 10 April 2019 (concluding on 17 April 2019), and invited the submission of a LIR by the Council.

The purpose of this Local Impact Report is to outline the expected impacts of the Scheme application pertaining to the London Borough of Havering in respect to the proposed Scheme as it stands at 20 May 2019.

The Council anticipates amplifying the matters of concern set out in this LIR to the extent that Cory further articulates its current Scheme, and its concerns, in due course and because the matters are both “important” and “relevant” to the determination of the Secretary of State under the Planning Act 2008.

## **2.0 The Scheme**

The Application seeks development consent from the Secretary of State for an integrated energy park of over 50 megawatts generating capacity (comprising waste energy recovery, waste anaerobic digestion, battery storage and solar generation) and associated electrical connection ("the Scheme").

The Scheme is identified as being within the area outlined in red by Cory in its application for a DCO. The Council does not consider that the area covered by the DCO can extend beyond the red line drawn by Cory.

The Scheme includes the compulsory acquisition of interests in and rights over land, the temporary use of land and the overriding of easements and other rights. The Council has no direct interest in these acquisitions.

## **3.0 Description of the Site**

The Scheme includes a new Energy Recovery Facility (ERF) on the southern banks of the Thames River, directly across the river from the Council's area on the opposite (north) bank of the Thames River. The Council boundary extends to the edge of the river and a significant portion of land within the Council falls within the air pollution impact radius of the Scheme due to its proximity on the opposite bank of the river to where the Scheme is proposed.

The area opposite the river and surrounding the site, incorporating Rainham and Beam Park is undergoing significant regeneration with a number of major development proposals either under construction or having received planning permission. These include the Rainham and Beam Park Housing Zone which is a 3,000 unit residential-led housing scheme approved by the Mayor of London under his call-in powers. Generally speaking, these schemes are for dense, residential led, mixed use developments.

## **4.0 Planning Policy Context**

### **4.1 Havering Local Development Plan**

- Havering last year submitted its Local Plan to the Planning Inspectorate and it underwent an Examination in Public (EiP) in October 2018. The Local Plan sets out the Council's ambitious vision and strategy for future growth and sustainable development over the next 15 years up to 2031. The Local Plan also indicates the broad locations in Havering for future Housing, employment, retail, leisure, transport, community services and other types of development.
- Havering's population is expected to grow to over 293,000 over the next 15 years. The strategy underpinning the Local Plan seeks to ensure that there is the necessary growth in homes, jobs and critical infrastructure to support and sustain new and existing communities whilst also conserving and enhancing the borough's most valuable assets and maintaining its long established and strongly supported character and appearance as an outer London suburban borough.
- Rainham and Beam Park is located in the south of Havering with the London Borough of Bexley located opposite this part of the borough across the River Thames. Rainham and Beam Park in Havering are also identified within the London Riverside Opportunity Area (OA) which includes extensive land in both Havering and adjoining Barking and Dagenham. The London Riverside Opportunity Area Planning Framework (2015) identifies that the wider area has the capacity to provide 26,500 new homes and 16,000 new jobs across the two boroughs. In Havering, the focus will be on the intensification of industrial land in the Rainham Employment Area and the creation of significant new residential communities at Rainham and Beam Park.

### **4.2 Havering Local Implementation Plan**

- Havering has a statutory obligation under the 1999 GLA Act to produce a Local Implementation Plan (LIP). This is essentially a transport strategy for the borough

setting out how the Mayor's Transport Strategy (MTS) will be delivered at a local level. The LIP contains a series of strategic transport objectives and a Delivery Plan which sets out how it will spend the funding it receives from Transport for London (TfL) to meet the Mayor's key outcomes and targets. Many of the Mayor's Outcomes and Targets focus on supporting delivery of the Mayor's Healthy Streets agenda.

- A key focus of development within the LIP will be delivering measures that support the delivery of the Rainham and Beam Park Housing Zone and London Riverside Opportunity Area and provide residents and visitors with alternative options to travel other than the car.

#### **4.3 Havering Air Quality Action Plan**

- Havering's Air Quality Action Plan (AQAP), published in June 2018, is a 5 year plan that help towards tackling poor air quality around the borough. The Council's priority is to reduce key pollutants, Nitrogen Dioxide (No2 and Particulate Matters) PM10 and PM 2.5. In Havering, whilst these pollutants are primarily produced by road traffic, there are also other contributions such as through construction, domestic gas use and industry. Since September 2006 the entire London Borough of Havering has been designated an Air Quality Management Area (AQMA) for No2 and PM10.

#### **4.4 Rainham and Beam Park Planning Framework**

- In order to establish the Council's investment priorities in the Rainham and Beam Park Housing Zone, the Rainham and Beam Park Masterplan and Planning Framework was produced following extensive stakeholder consultation and was adopted as a non -statutory planning policy in February 2015.

The Planning Framework helps to guide the form and pattern of development within Rainham and Beam Park area setting out key design principles for new development and ensuring that appropriate infrastructure is put in place – such as schools, transport and health services to support the new development. The framework seeks to secure high quality development and to achieve a step change in the perception of the area to ensure

that it is attractive to investors and developers.

## 5.0 Air Quality Impacts

### 5.1 Assessment Methodology

The Council supports in principle the air quality assessment methodology for construction dust, transport and combustion emissions.

The Council notes that the assessment methodology includes contradictory information, in relation to the model verification and the existing baseline year. More specifically, while paragraphs 7.4.9, 7.5.29 and 7.6.3 of the Environmental Statement (ES) state that the air quality model has been verified against 2016 monitoring data, the existing baseline and the actual model verification were based on data from 2017.

It is necessary to highlight that only one monitoring site, the HV1 continuous monitor in Rainham, was used for the model verification, the purpose of which is to evaluate the model performance. The model verification falls short of the relevant recommendation set out in the DEFRA Local Air Quality Management Technical Guidance (TG16):

*“The use of one continuous monitor alone to derive the adjustment factor for a model is not recommended as the monitoring site may not be representative of other locations modelled, and the adjustment factor derived will be heavily dependent on the source to receptor relationship as represented by the meteorological data file used in the dispersion model”.* This approach increases the amount of uncertainty of the modelled results and therefore prevents the Council from making confident and accurate assessment as to the impacts of the transport emissions during the operational phase of the proposed Scheme.

### 5.2 Construction Phase

According to existing guidance, the risk of dust impacts should be assessed within 350m for human receptors or 50m for terrestrial biodiversity receptors of the boundary of a construction site, or within 50 m of route(s) used by construction vehicles on the public highway, up to 500 m from the entrance of the site. Considering the location of the

proposed Scheme, the Council is of the view that the likely impacts of the construction phase on Havering will be negligible.

### **5.3 Operational Phase: Transport Emissions**

In the Council's Representation, dated 11 February 2019, the Council requested additional information on the model performance that includes measures such as Root Mean Square Error (RMSE) calculations, in order to ensure that the modelling approach underpinning the air quality assessment of the transport emissions can be verified as fit for purpose.

Given that the model verification was based on the data from one monitoring site alone, statistical procedures which assess the model uncertainty, such as the RMSE calculation, cannot be used and, therefore, this additional information could not be provided.

Based on available data from the Council's HAV46 diffusion tube site at Rainham Village Primary School, the 2016 annual mean for Nitrogen Dioxide (NO<sub>2</sub>) was 34.5µg/m<sup>3</sup>, while the model predicted result at the same location (Receptor R22) is 30.9 µg/m<sup>3</sup>. While it is not possible to conclude that the model systematically under-predicts the NO<sub>2</sub> levels, there is evidence of underprediction at one location. At locations where the NO<sub>2</sub> levels are close to or already exceed the air quality objective being assessed, underpredictions of the model may introduce significant errors in the assessment of the air quality impacts at these locations.

The Council is of the view that the model verification should be revisited, by using multiple sites at which to verify results, in line with the DEFRA Local Air Quality Management Technical Guidance (TG16), to establish confidence in the model results.

### **5.4 Operational Phase: Stack Emissions**

#### 5.4.1 Human Receptors

Air quality in Rainham is known to be poor, primarily due to the industrial land uses of the area. The Council is concerned about the potential health impacts of the stack emissions during the operational phase of the proposed Scheme, Nickel and Chromium VI, in

particular.

### Nickel Emissions

Based on the modelling of the dispersion of exhaust gases during operation of the proposed Energy Recovery Facility (ERF), a 'Large' increase (i.e. greater than 5.5%) in Nickel concentrations has been identified at a number of human receptors in Havering. These receptors are considered sensitive, as they are located in residential areas, such as Wennington Road / Anglesey Drive, Celtic Farm Road and Capstam Drive. An increase of 5.36% has also been identified at Rainham Village Children's Centre.

Given that the predicted annual average concentration (in the ES referred to as 'Predicted Environmental Concentration') of Nickel at these locations is less than 75% of the relevant limit value (in the ES referred to as 'Air Quality Assessment Level'), the overall impacts of Nickel emissions have been described as 'Minor' and judged as 'not significant'.

While the Council agrees with the description of impacts as 'Minor', it does not share the view that the impacts can be considered not significant. According to the Institute of Air Quality Management (IAQM) and Environmental Protection (EPUK) Guidance, the assessment of significance should be based on professional judgement, taking into account a number of factors, including the number of properties exposed to impacts. According to the same guidance, an individual property exposed to a 'Moderate' adverse impact might not be considered a significant effect, but many hundreds of properties exposed to a 'Minor' adverse impact could be. Taking into account the location of the modelled receptors at which the impacts of Nickel emissions are Minor, the Council considers that a sufficiently high number of residential properties will be exposed to these impacts and therefore has concerns about the potential significant impacts on the health of residents of the affected properties.

### Chromium VI Emissions

Based on the modelling of the dispersion of exhaust gases during operation of the proposed Energy Recovery Facility (ERF), an 'Imperceptible' increase (i.e. lower than 0.5%) in Chromium VI concentrations has been identified. This led to a description of the

impacts as 'Negligible' and an assessment of the overall impacts of Chromium VI emissions as not significant.

At a number of sensitive receptor locations, such as Wennington Road / Anglesey Drive, Celtic Farm Road, Capstam Drive and the Rainham Village Children's Centre, the increase in Chromium VI ranges from 0.32 to 0.36%. Furthermore, the Chromium VI background concentration in these areas already significantly exceeds the limit value (over 160% of the Air Quality Assessment Level).

Taking into account the extent to which the Chromium VI limit value is exceeded, the Council considers that even a small contribution leading to an increase in concentration by approximately 0.35%, can have 'Minor' impacts on the above mentioned human receptors. Considering also the location of these receptors, it is the Council's judgement that a sufficiently high number of properties will be exposed to 'Minor' impacts and therefore that these impacts are potentially significant.

#### 5.4.2 Terrestrial Biodiversity Receptors

In the Council's Representation, dated 11 February 2019, the Council requested explanation and clarification of the impacts of the proposal on the Hornchurch Cutting, which is located within the assessment area. The developer explained that the sites for which the habitats had been designated on the basis of their geological interest only and have no biological features, were not included as they are not sensitive to acid or nitrogen deposition. Given that the Hornchurch Cutting is a geological Site of Special Scientific Interest (SSSI), it was not included in the assessment of stack emission impacts. The Council is satisfied with this explanation.

In its Representation, the Council also raised concerns about the impacts of ammonia, acid deposition and Nitrogen Oxides (NO<sub>x</sub>) on the Inner Thames Marshes / Rainham Marshes and Ingrebourne Marshes, due to the fact that the Process Contribution (PC) is greater than 1% of the long-term environmental standards for these pollutants.

The developer clarified that although the PC exceeds the above threshold, the Predicted Environmental Concentrations (PECs) for ammonia and acid deposition are below the

critical levels, as such, they are unlikely to have a significant impact on the habitats. This assessment is in line with the Environment Agency guidance, it is therefore to the Council's satisfaction.

With regard to the Council's concerns about potential significant impacts of the NOx emissions on the Inner Thames Marshes / Rainham Marshes and Ingrebourne Marshes, the developer proposed an improved abatement technique, referred to as selective catalytic reduction (SCR), which will further reduce the NOx emissions. This technique has been included in the Environmental Permit application for the facility. The developer also stated that the assessment has been based on a set of parameters of the building termed as 'Rochdale Envelope', as a worst case scenario, whereas the actual building form will be somewhat smaller and stepped, which will also lead to reduced NOx concentrations.

On the basis of the above scenarios, the updated PCs and PECs are still above the NOx thresholds for Inner Thames Marshes / Rainham Marshes and Ingrebourne Marshes. The Council cannot therefore agree with the assessment of the impacts as 'not significant' and considers that further controls should be taken, to reduce the NOx emissions and minimise the impacts on the above terrestrial biodiversity receptors.

## **6.0 Impact on Future Development Sites & Urban Renewal**

### **6.1 Rainham and Beam Park Housing Zone**

Rainham and Beam Park in the south of the borough is set to be transformed over the next 10-15 years, with a new high quality and healthy residential neighbourhood containing over 3,000 new homes. Development will be delivered on a series of connected sites to the south of New Road extending from the River Beam in the west to Dovers Corner/Bridge Road in the east, together with sites to the north of New Road which are currently occupied by incompatible uses. The Council will also support the redevelopment of undesignated sites in Rainham District Centre and the wider Strategic Development Area.

### **6.2 Beam Park Station**

A new rail station is being delivered along the Essex Thameside line between

Dagenham Dock and Rainham Stations at Beam Park. The station, is expected to be open by 2021 will serve the new Rainham and Beam Park Housing Zone and surrounding area. Passengers will be encouraged to travel sustainably to the station by foot or by bike through new links that will be delivered as the Housing Zone is developed.

In addition, a new local centre adjoining Beam Park Station will be delivered providing between 3,500 and 4,000 sqm of floor space through the provision of new modern retail and commercial units.

### **6.3 Beam Parkway Major Scheme**

Amongst the development proposals for the Rainham and Beam Park area is to deliver a transformational scheme along the A1306 known as Beam Parkway. The scheme will transform the A1306 New Road from the Dover's Corner roundabout to the borough boundary with Barking and Dagenham.

The scheme will transform New Road into a greener and more pleasant place to spend time in and live next to, for both existing and future residents. Beam Parkway will become a major asset for new and existing residents. The current perception of an out of town "A road" will be replaced with the experience of passing through a high quality place specific landscape that complements the new homes and community at Beam Park. The Parkway will have the capacity to provide a wide range of new uses, amenities and infrastructure currently lacking in the local area. It is envisaged that the parkway will become a place where people can walk, cycle, play sport, shop and eat. The scheme will be supported by improved lighting, seating and wayfinding and a new planting enhancing local habitats and suitable urban drainage.

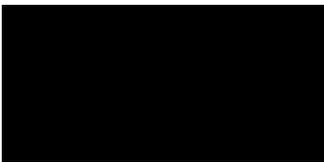
### **6.4 Estate Regeneration Programme**

The regeneration of 12 Council Housing sites will see a doubling of the affordable housing across those sites to help provide affordable homes to people. The first proposal for Havering's biggest regeneration project includes plans for the Napier

and New Plymouth House site in Rainham. The site is one of 12 included in the Council's Estate Regeneration Programme, which will see around 3,000 homes delivered in the borough over the next 12 – 15 years. The Project will seek to increase the amount of Council rented accommodation and double the amount of affordable housing.

### **Authorisation**

Signed by:



Duly authorised on behalf of the London Borough of Havering

Dated: 20 May 2019