

Jonathan Green
Riverside Energy Park Examining Authority
National Infrastructure Planning
Temple Quay House
2 The Square
Bristol
BS1 6PN

Date: 20 May 2019
Our ref: 20022257
Your ref: EN010093

Dear Mr Green,

Re: Written Representation from East London Waste Authority to Riverside Energy Park DCO Application

Further to the outline Relevant Representation I submitted earlier this year, please find herewith a full Written Representation from East London Waste Authority (ELWA) for the Examination of the Development Consent Order application for Riverside Energy Park.

The focus of ELWA's representation is on the proposed energy-from-waste (EfW) facility at the site, rather than the anaerobic digestion plant and battery storage installations.

DISTRIBUTION OF EFW FACILITIES

ELWA understands that the Examining Authority has concluded that the need for the new EfW facility is set out in National Policy Statement for Renewable Energy Infrastructure (EN-3). ELWA does not contest or object to this decision from the perspective of energy generation.

However, ELWA is concerned that the locating of a second large EfW on essentially the same site as an existing (even larger) plant will lead to an unhelpful clustering of this activity in one location. As noted in section 2.5.18 of EN-3, an EfW serves two roles: treatment of waste; and recovery/generation of energy. Arguably there are few geographical considerations that need to be made for energy generation, given the pre-existing grid infrastructure and the intensity of energy use/demand within London and the South East. However, for waste treatment the geographical factors become more pertinent, owing to the costs and environmental impacts of moving the material over longer distances.

Concentrating such a large amount of residual waste treatment at one location will potentially result in an efficient system overall. ELWA would argue that the equivalent capacity of infrastructure may be better placed elsewhere to deliver additional energy infrastructure for the national grid while also contributing to the development of a more efficient and balanced network of waste treatment and heat production facilities.

SOURCES OF WASTE

The existing Riverside Resource Recovery Facility (RRRF), located next to the EfW proposed as part of this application, is already handling the waste from those London authorities who can place it on to river transport:

- Western Riverside Waste Authority (which manages waste treatment and disposal for the boroughs of Hammersmith & Fulham, Kensington & Chelsea, Lambeth and Wandsworth) uses wharves at Smuggler's Way and Cringle Dock (both LB Wandsworth).
- City of London uses Walbrook Wharf (City of London).
- Tower Hamlets uses Northumberland Wharf (Tower Hamlets).

LB Bexley, the host borough for the RRRF, delivers by road to the RRRF.

Appendix 1 to this Written Representation provides information on how the majority of residual waste from the London boroughs is being managed. **Appendix 1** also includes information about how residual waste is currently managed in Kent and Essex (including the county councils and unitary authorities) as they border the River Thames.

This information is provided to demonstrate that local authority residual waste streams from the likely 'catchment area' of the new facility are already being managed through other arrangements. Securing access to these types of waste streams on long-term contracts is normally an important part of EfW operators' business plans, as this can provide some guaranteed feedstock and associated financial security. Accepting waste from further afield is likely to cause greater impacts of transportation.

RIVER TRANSPORT

The map in **Appendix 2** shows the locations of existing EfW facilities in or very close to London, along with the location of the four wharves where waste is loaded on to barges to be taken to the existing RRRF in Belvedere. Also marked for context is the Crossness Sewage Treatment Works, and the two closest fixed-link crossings of the Thames to the proposed location of the REP.

ELWA notes that the applicants have not given details of the available operational capacity at the four existing river transfer stations in London. ELWA understands that these facilities are already well-used, and may not have capacity to handle the amount of waste that is proposed to be treated at the REP (which is nearly the same again as what passes through the existing RRRF). The application does not appear to include any proposals for additional riverside infrastructure at other locations, whether within the boundaries of Greater London or in locations along the Essex or Kent shorelines of the Thames Estuary.

The largest of the four wharves that are used to load waste onto barges for shipment to the existing RRRF at Belvedere are the two located in Wandsworth that are used by Western Riverside Waste Authority. From these locations the waste containers are hauled a considerable distance down the river, replacing what would be lengthy road journeys to reach a disposal site elsewhere. However, it is not clear if the additional costs and complexity of transferring waste from road transport to river barges (and then back onto road transport on the jetty at Belvedere) is justifiable for replacing shorter journeys.

Where road journeys could be justified on efficiency grounds, there are reasonable connections to the west, south and southeast of Belvedere. However, ELWA would like to highlight the impact of the River Thames as an obstacle to accessing this area from locations to the north. As is indicated on **Appendix 2**, there are no fixed-link crossings (bridges or tunnels) between Blackwall in the west and Dartford in the east. The planned Silvertown Tunnel is located almost alongside the existing Blackwall Tunnel:

There are no proposals in current transport strategies to develop a fixed road link closer to Belvedere that ELWA is aware of (<https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/new-river-crossings-for-london?intcmp=43597>).

Without either the development of new riverside infrastructure to enable short crossings by barge from the north (which would significantly add to the cost of wastes management to residents) or the construction of a proximate new bridge, it appears to ELWA that the Belvedere site may only be suited to wastes from the south, thereby placing increased burdens on the local road network and environment.

HEAT SOURCE DISTRIBUTION

ELWA notes that the existing RRRF at Belvedere does not yet have any heat offtake customers, nor any firm proposals for the establishment of a district heat network to which it would be connected. This therefore brings into question whether there is sufficient demand for a second large heat source at the same site, both at present or in forthcoming developments. ELWA would also like to draw attention to the presence of another incineration facility (for sewage sludge) in the vicinity at Crossness, which may offer potential for heat offtake should there be demand. This means there is already a significant concentration of unexploited heat available at Belvedere.

The DCO application notes that the EfW proposed as part of the REP would serve as a back-up to any heat offtake that may eventually begin from the existing RRRF. However, the RRRF has three separate boilers, and only one of these would ever be taken offline at a time for routine maintenance. The circumstances would be very rare indeed for both of the other lines to need to be taken offline as well, and as such the facility would continue to supply significant amounts of heat. A robust district heat network should have an independent back-up gas boiler and thermal stores (ideally at a separate location to the main heat source), which would come into service should there be a catastrophic failure of heat supply from the primary source. The need for the REP EfW as a back-up is therefore not clear, particularly as it would be likely to use the same physical connection as the RRRF to any district heat network (and thus separate back-up boilers elsewhere would still be needed to guarantee supply in the event of damage to this connection). Again, it should be noted that the existing Crossness sewage incineration facility may be appropriate as a secondary heat source, should there be a need for a backup to the RRRF.

District heating, and the associated district cooling technology, could play a role in helping the UK to adapt to climate change and increase its energy security. If these technologies are to play more of a role in London's future, there would need to be a fairly even distribution of major heat sources around the city to ensure that these are being used as efficiently as possible. Concentrating heat sources in the manner that is proposed at Belvedere would significantly increase the capital costs of new district energy networks because of the need for longer-distance connections to distribute the heat to other neighbourhoods. Buried heat network pipes can cost £1000/metre to install¹. In addition, as the heat sources at Belvedere have a wide stretch of the Thames immediately to the north, it is arguable that the opportunities for heat offtake are further reduced.

If you wish to clarify any of the points we have made, please do not hesitate to contact me.

Yours faithfully,

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East London Waste Authority

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/424254/heat_networks.pdf