GREATER**LONDON**AUTHORITY

planning report D&P/3509/04

22 March 2016

North London Heat and Power Project

in the London Borough of Enfield

Planning Inspectorate Reference: EN010071

National Infrastructure Project Development Consent Order application – Local Impact Report

Planning Act 2008 (as amended), Overarching National Policy Statement for Energy, July 2011, and National Policy Statement for Renewable Energy Infrastructure, July 2011.

The proposal

The North London Heat and Power Project would comprise of an energy recovery facility (ERF) using waste as a fuel and capable of an electrical output of approximately 70 megawatts (MW) and heat output of approximately 35MW. The proposal has a heat link potential via the Lee Valley Heat Network (LVHN).

As the North London Heat and Power Project would generate energy over 50MW it is classified as a Nationally Significant Infrastructure Project (NSIP) under section 14 (1) (a) and section 15 (2) of the Planning Act 2008. National Policy Statements (NPS) EN-1 (overarching National Policy Statement for Energy and EN-3 (National Policy Statement for Renewable Energy Infrastructure) both apply to the North London Heat and Power Project.

The applicant

The applicant is **North London Waste Authority (NLWA)**.

Strategic impacts

Waste

- The proposed facility will be an asset to London in achieving net waste self- sufficiency and will establish a major source of low to zero carbon heat for use by others that will contribute towards London's climate change targets.
- Reuse and safeguarding of an existing waste site supported by London Plan policy 5.17, the draft North London Waste Plan and Enfield Core Strategy (Policy 22).

Heat

- The heat demand in the area is greater than that calculated however mechanisms are being put in place to distribute to homes via the LVHN.
- The carbon intensity floor policy (CIF) required by policy 5.17/paragraph 5.85 can only be achieved if the ERF's heat capacity and offtake is secured.
- The steam turbine should be future proofed and of a specification to avoid retrofitting and closure later.

Transport

- Transport for London is the freehold owner of some of the land within the site included within the DCO and it has concerns about this together with the likely impacts to the network during the construction period. It would like to be party to the s106.

Air quality and environmental matters

- The new ERF will mitigate the nitrogen oxides (NOX) via a flu gas cleaning system. The injection of a lime slurry to reduce the acid gasses through the installation of a catalytic reduction system is supported as this will ensure air quality and health impacts are addressed from the outset. This technology is not used in the UK, however it is used in Continental facilities which are exceeding EU emissions targets and therefore the ERF would go beyond the minimum requirement. Further, the Environment Agency, the permitting authority, would ensure that the regulations are being met.
- The GLA would like the inclusion of the guidance relating to non-road mobile machinery (NRMM) contained within the GLA Control of Dust and Emissions During Construction and Demolition SPG within the DCO. (see link)- https://www.london.gov.uk/priorities/planning/publications/the-control-of-dust-and-emissions-during-construction-and
- Sustainable drainage at the site, biodiversity and noise mitigation is secured and under review by the relevant statutory bodies and GLA officers are certain that their comments would influence the final DCO.

Context

1 NLWA has submitted a Development Consent Order application to the Planning Inspectorate for the project outlined above. Section 60 (2) (B) of the 2008 Planning Act sets out that the Planning Inspectorate is also required to invite the GLA to submit a local impact report (Section 60 (2) (B) of the Act). The GLA may also make representations on the proposal.

2 The GLA is therefore making both a written representation, submitting this local impact report (LIR), which focuses on strategic impacts and a Statement of Common Ground (SoCG). These submissions will be examined and the Secretary of State will have regard to these.

3 GLA comments at the pre-consultation stage of the proposal were set out in pre-application reports to the applicant. Meetings were held with the applicant on 25 February 2015, 25 June 2015, 22 October 2015 and 16 January 2016. The first two meeting reports (D&P/2367c and D&P /2367c report 2) had the following conclusions to make respectively:

- The new plant should be designed and built as a combined heat and power (CHP) plant enabling heat to be supplied to the network in the most economic and energy-efficient way. The NLWA should always quote the heat supply capacity (MWth) when describing the plant energy output as it does the electrical output (MWe).

- The heat off-take capacity of the plant should be optimised in terms of the economic production of heat, and be in line with good steam turbine/district heating practice. The off-take capacity should not be designed to meet just the demands currently being negotiated with the Lee Valley Heat Network (LVHN). The LVHN capacity will be far less than the plant potential. The provision made in the steam turbine for heat off-take tappings that would supply the district heating heat exchangers (provided by others) would allow for the plant's capacity to be optimised and not just at a procured/ contracted capacity arrangement. This provision costs very little and its retro-fit at a later date is not practical. GLA officers therefore ask that the plant is specified and procured to optimise the economic heat off-take capacity irrespective of whether there is a customer for that heat or not. GLA

officers require further design information on how NLWA will specify and procure its steam turbine and its heat off-take provision. This should be shown in diagrammatic format, demonstrating the temperature and pressure levels as well as capacity.

- The facility should meet the carbon intensity floor of 400 grams of CO2 eq per kWh of electricity generated as outlined (then) in the Further Alterations to the London Plan Policy 5.17- now London Plan, March 2016. The applicant states that the thermal stores are to optimise power versus heat arrangements to meet the carbon intensity floor.

- To mitigate the nitrogen oxides NOX, a flu gas cleaning system is proposed (the injection of a lime slurry (200ml per cubic metre) to reduce the acid gasses)-through the installation of a catalytic reduction system. The applicant states that this technology is not used in the UK, however it is used in Continental facilities which are exceeding EU emissions targets (going beyond the minimum requirement).

- Those elements of the development that are covered by Part L of the Building Regulations (e.g. administrative buildings, offices, and visitor centre) should demonstrate how they are minimising carbon dioxide emissions to meet the targets in Policy 5.2 of the London Plan and be designed to meet Part L 2013 through energy efficiency measures alone (guidance available https://www.london.gov.uk/priorities/planning/strategic-planning-applications/preplanning-application-meeting-service/energy-planning-gla-guidance-on-preparing-energy-assessments)

- Overall, the proposed facility will be an asset to London in achieving net self- sufficiency and will allow for energy gains to be achieved, as proposed by the Council's Lee Valley Heat network proposals. Strategically, the proposal will facilitate the objectives set out in the Upper Lee Valley OAPF and the London Plan and is therefore strongly supported.

- The applicant was informed at the meeting that the proposal is broadly supported meeting London Plan waste policies 5.16 and 5.17–namely for the benefit of North London Boroughs meeting waste apportionment and helping London become 100% net waste self- sufficient. The facility will support additional bulky waste recycling capacity, make use of an existing brown field and waste site, manage waste close to source, and divert over 500,000 tonnages of waste from landfill.

- The applicant was asked to take a flexible approach to allow for the adoption of other technologies that may become available that deliver greater efficiencies and be cost effective (than moving grate incineration). The applicant is not proposing any pre-treatment capacity on site to recover material suitable for recycling, noting this would add additional cost with little benefit. The applicant is asked to provide more information on what measures are/will be in place to ensure waste going to the ERF is 'truly residual waste' (to reach 50% recycling performance), as to not negatively impact the achievement of recycling targets sets by the North London boroughs and the Mayor's recycling targets for London.

- GLA officers noted that the technical operations of the facility have a lot of mitigation built into the process/plant to overcome environmental concerns such as air quality, noise and flood risk.

<u>The second report:</u>

- It was reiterated to the applicant to future-proof the steam turbine (as we would future proof buildings) in regard to the turbine's heat supply capacity for district heating, and to do

this in such a way so as to optimise the cost of heat for future district heating businesses. They were advised to opt for a steam turbine capable of supplying a variable district heating load, allowing for more heat to be supplied during the winter months and higher electrical generation in the summer.

- NLWA indicated that it is supportive of the LVHN and is working to make available an economically optimised heat supply capacity to interested heat recipients/suppliers from both the existing and future ERF facilities. NLWA stated that LVHN are putting their own boilers in at the site but have not defined what their technical requirements are at this point.

- A technical description of the steam turbine, the heat supply capacity, the pressures and temperatures at which steam is taken off and a process flow diagram to demonstrate how this will be achieved with a 'Z' factor calculation. NLWA mentioned that consultant's Ramboll are currently undertaking the ERF technical specification work for the procurement of the plant and equipment. The GLA energy officer offered to participate during the steam turbine market assessment (soft market testing) to ensure a common understanding of the best options available to NLWA. This would establish confidence that the heat supply arrangements avoid expensive heat production that could compromise the business case for district heating. (This is secured in the SoCG). Although the available steam turbine configurations are dependent on the market and demand, NLWA are committed to optimising the electrical output and heat supply capacity to be available for other heat off-takers and not just the LVHN who are the current interested party.

- NLWA stated that the DCO process allows it to undertake this specification exercise as the scheme develops and the Environment Agency will review the options it presents.

Statement of Common Ground

4 It was agreed at the second meeting that subject to the strategic objectives being delivered (as set out above); the GLA, in its capacity as a statutory consultee, would consider entering into a Statement of Common Ground (SoCG) if appropriate once the application has been submitted.

5 The last two pre-application meetings with NLWA involved preparing the SoCG.

6 The GLA submitted representations to the phase 1 and 2 consultations by the NLWA in January 2015 and June 2015 (ref: D&P/3519/01 and D&P/3519/02) respectively. These set out the following:

Phase 1

- Having reviewed the consultation documents, GLA officers are of the view that the proposed facility will be an asset to London in achieving net self- sufficiency and will allow for energy gains to be achieved, as proposed by the Council's Lee Valley Heat network proposals. Strategically, the proposal will facilitate the objectives set out in the Upper Lee Valley OAPF and the London Plan. The likely cumulative impacts from waste and energy processing; transportation and air quality /noise/flood risk impacts will need to be assessed once the NLWA has undertaken the necessary environmental and transport related assessment reports. These will also be assessed by the Environment Agency. Transportation of waste by river will need to be assessed by the applicant. There are immense energy gains to be achieved from this proposal, not to mention waste diversion from landfill. The NLWA should continue to work with GLA officers in developing this proposal further to secure optimum decentralised energy opportunities from the energy/heat that will be generated at this site.

- GLA officers welcomed partnership involvement with the NLWAs work relating to the Development Infrastructure Funding (DIF) study it was undertaking with TfL, London Boroughs of Enfield, Haringey, Waltham Forest and Hackney.

Phase 2

- GLA officers reiterated the earlier responses stating- (1) the proposed facility will be an asset to London in achieving net self- sufficiency and will establish a major source of low to zero carbon heat for use by others that will contribute towards London's climate change targets. (2) The ERF will underpin the future, of the Council's Lee Valley Heat network proposals. The applicant has agreed to work with the GLA to establish an economic heat supply facility from the proposed steam turbine.

- The applicant is asked to provide more information on how they will support NLWA's constituent boroughs to achieve its 50% recycling target, and that the ERF facility in its planned configuration meets the Mayor's carbon intensity floor CO2 standard, in order to be considered in general conformity with London Plan waste policy.

- The likely cumulative impacts from waste and energy processing; transportation and air quality /noise/flood risk impacts will need to be addressed by NLWA prior to its submission to PINS. The applicant will be required to apply the guidance set out in the Control of Dust and Emissions During Construction and Demolition SPG. This will meet the requirements of policy 7.14 of the London Plan.

- Transportation of waste (during demolition, conduction and operation) by river will need to be assessed by the applicant, as set out within the water transport /transport sections of this report.

- There are immense energy gains to be achieved from this proposal beyond those currently being negotiated with LVHN; not to mention waste diversion from landfill. The NLWA should continue to work with GLA officers in developing this proposal further to secure optimum decentralised energy opportunities from the energy/heat that will be generated at this site.

- Again, joint working with the DIF study was recommended.

Comments specific to the DCO application

7 This report covers the strategic policy matters of the scheme which are relevant to this opportunity area and within London. Other matters concerning environmental impacts and the visual design of the proposal are left for the scrutiny of the local authorities.

The planning process:

8 The North London Waste Authority (NLWA) is planning to apply for a Development Consent Order (DCO) under the 2008 Planning Act for the development of a new state-of-the-art ERF to replace the current ageing facility which was opened in 1970 and has a projected remaining operational life to circa 2025. The Authority is the UK's second largest waste disposal authority handling approximately 2.5% of the total national municipal waste stream.

9 The facility would replace the existing EfW facility and would generate in excess of 50 megawatts of energy. This level of energy generation triggers the need for an application to be made to the Planning Inspectorate through the DCO process under the 2008 Planning Act, rather than a planning application that is determined by the Local Planning Authority (London Borough of Enfield) under the Town and Country Planning Act 1990.

10 The application for Development Consent Order has now been made pursuant to the Planning Act 2008 (as amended). The process for applying for consent for a Nationally Significant Infrastructure Project is laid down in detail in statute and regulation (NSIP) under Part 3, Section 14(1)(a) of the Planning Act 2008. As such the applicant must submit a draft development consent order (DCO) for examination. If agreed to by the Secretary of State this draft DCO will become a statutory instrument which will set out what development is consented and the requirements the applicant must comply with during construction and operation. The DCO will also grant the applicant powers of compulsory acquisition for land requires for the authorised works.

As an application has been submitted to and accepted by the Planning Inspectorate the applicant must consult the GLA again (Section 56 (2) (c) of the Act). The GLA can then make representations to the Planning Inspectorate. The Planning Inspectorate is also required to invite the GLA to submit a local impact report (Section 60 (2) (B) of the Act). If the GLA makes representations it may request to appear at a hearing to examine the application.

The construction timeframe:

11 The NLWA was required to undertake two rounds of consultation as part of the statutory planning process, before it submitted the application to the Planning Inspectorate (PINS). The first consultation phase ran between November 2014- January 2015 and the second consultation (phase 2) between May-June 2015. (The GLA responses to these are detailed above). NLWA anticipate that a decision to grant or refuse permission will be made by early 2017.

12 The earliest construction could commence is 2018/19, but it may commence slightly later. It is estimated that the scheme would take approximately three years to complete, including a six month commissioning period. The existing EfW has a life capacity up to 2025. The new ERF would have a design life of 25 to 30 years but that is likely to be extended through ongoing maintenance.

Site description

13 The Edmonton Eco Park is within the Upper Lee Valley Opportunity Area. This site is bounded by:

- industrial uses and Deephams farm to the north;
- the Lea Navigation and the Lee Valley Regional Park (including the King George V and William Girling reservoirs, both of which are Sites of Special Scientific Interest) to the east;
- Advent Way, a Sea Cadets building on site and the Lee Valley district energy centre to the south; and
- Salmons Brook, Ely Industrial Estate and a residential corridor to the west.

14 The site currently operates as a waste processing facility and contains a central 'Energy from Waste' (EfW) incinerator, a composting facility, bulky waste and recycling facilities and Enfield Council's refuse vehicle depot. It is understood that Deephams Farm, to the north of the site is used for cooling purposes by NLWA.

15 The site is accessed from Advent Way, which leads to the A406 North Circular Road, part of the Transport for London Road Network (TLRN). The site lies some 1.5km from the nearest section of the Strategic Road Network (SRN) at the A1010 Fore Street.

16 Whilst Angel Road National Rail station lies approximately 500m to the south west, the walking environment between this station and the site is very poor. Currently frequency of service throughout the day is also poor (2 trains per hour).

17 Three local bus routes run within 450m of the site, although the quality of the pedestrian routes between the site and bus stops served by these routes is again very poor. The site has a public transport accessibility level of 1b within the range of 6 (highest) and 1 (lowest).

Details of the proposal

18 The proposal comprises an energy recovery facility using waste as a fuel capable of generating around 70 Megawatts of electricity and a heat capacity to be established later- however the current approximate figure is 35MW. The ERF will have a capacity to process up to 700,000 tonnes per annum (at a peak), which with current recycling rates means that the new facility would be capable of handling all municipal waste generated in the constituent North London Boroughs.

19 While a recycling rate of 33% is currently being achieved, the Authority's target is to increase this to around 50% by 2020/21. This will offset any increase in non-recoverable waste due to growth. The ERF is expected to be linked to the Lee Valley Heat Network (LVHN), providing heat to homes in Enfield and Haringey.

20 The main plant would comprise:

- two process lines, with each line having a moving grate, furnace, boiler and a flue gas treatment plant and stack;
- a steam turbine and electricity generator set complete with heat-off take arrangements capable of supplying heat to a district heating network;
- a waste bunker with sufficient capacity to hold a minimum equivalent of 5-7 days of processing capacity;
- two overhead cranes in the bunker hall;
- air or water cooled condenser(s);
- a plant control and monitoring system;
- an emergency diesel generator;
- a tipping hall and one way access ramp;
- fuel preparation plant (FPP);
- bulky waste recycling facility (BWRF); and
- household waste recycling centre (HWRC).

21 Ancillary elements would include a weigh bridge; and hard and soft landscaping directly related to the main building works. The project is expected to include the following associated development:

- upgrade of the electricity connection to the National Grid;
- new site access from the Lee Park Way;
- new internal roads and parking areas;
- administrative buildings and visitor centre;
- the decommissioning of the existing Edmonton EfW facility and making the site good (timed to take place following commissioning of the new ERF and with a transition period of up to a year).
- re-location of the LondonWaste Limited (LWL) vehicle depot and servicing.

- A heat supply connection to a proposed separate heat network centre (the Lee Valley Heat Network) located on the site. The connection system will be designed to be capable of providing heat in the region of 40 MW which will provide benefit to north and east London.

22 The buildings would be located either side of the existing plant. There will be a facilities overlap period of 6-12 months from the decommissioning of the existing energy from waste (EFW) facility and the 2027 new operations.

Planning history

23 The current Edmonton Energy-from-Waste facility is an inclined grate, mass-burn incinerator, designed as an alternative to waste being sent to landfill. It uses residual waste as a fuel to generate electricity through the incineration process. The Facility was commissioned in 1971 by the Greater London Council and has since been progressively modernised and updated to meet current environmental standards.

24 The applicant has consulted the GLA prior to submission and is committed to continuing joint working to ensure that the energy technical specification of the steam turbine is such that it is future proofed to meet future energy demands. The applicant met with officers on 4 occasions and the summaries of the feedback provided is as set out above.

Strategic planning issues and relevant policies and guidance

25 The relevant issues and corresponding policies are as follows:

• Principle of development	*London Plan;*
• Waste	*London Plan; the Municipal and Business Waste Management Strategies;*
• Energy	*London Plan; Climate Change Mitigation Energy Strategy;*
• Transport	*London Plan; the Mayor's Transport Strategy; Land for Industry and Transport SPG*
• Air quality	*London Plan; the Mayor's Air Quality Strategy;*
• Biodiversity	*London Plan*
• Sustainable drainage	*London Plan*
• Ambient noise	*London Plan; the Mayor's Ambient Noise Strategy;*

26 For the purposes of Section 38(6) of the Planning and Compulsory Purchase Act 2004, the development plan in force for the area is the Enfield Core Strategy, November 2010, the Enfield Development Management Document, November 2014 and the London Plan (Consolidated with Alterations since 2011).

27 The following are also relevant material considerations:

- The National Planning Policy for Waste (October 2014)
- The Upper Lee Valley Opportunity Area Planning Framework, July 2013
- The Upper Lee Valley Opportunity Area Planning Framework DIFs Final Report, September 2015,
- The Edmonton Eco Park Planning Brief, Supplementary Planning Document, May 2013

- Central Leeside Area Action Plan (proposed submission version- consultation period, 5 January -16 February 2015)
- The London Heat Network Manual (http://www.londonheatmap.org.uk/Content/uploaded/documents/LHNM_Manual2014Low.pdf).
- London's Wasted Resource London's Municipal Waste Management Strategy, November 2011
- The Mayor's Climate Change Mitigation and Energy Strategy, October 2011

Principle of development

Waste

Policy safeguarding

28 The site carries strategic importance as an 'existing' waste site, which is safeguarded by policy 5.17 of the London Plan. The site is also safeguarded for waste use in the Enfield Core Strategy (policy 22-"Delivering Sustainable Waste Management"). The policy states that the Council will continue *"to support the use of the Edmonton Eco-Park as a strategic waste site and working with the North London Waste Authority and the site operator to maximise the use of the site with more sustainable and efficient waste management processes including the future decommissioning of the current incinerator. This includes exploring opportunities for local energy provision to support new development at Meridian Water to the south."* The Council's Edmonton Eco-Park Planning Brief SPD also promotes the on-going use of the existing site to manage and generate heat and power. These policies are supported in strategic planning terms. The Council's Central Leeside AAP also states, the redevelopment of the EcoPark site, through a design-led approach will *"provide a distinctive and well-functioning environment with a high quality of design, landscaping (including ecological enhancement), materials and finish, integrated with proposals in the wider area of regeneration."* Continued use of the site for waste is therefore supported.

Retention of waste use

29 The proposed ERF will have the capacity to manage a greater waste through-put than the current EfW facility and is supported. The proposal supports London Plan waste policies 5.16 and 5.17–namely for the benefit of North London Boroughs meeting waste apportionment and helping London become 100% net waste self- sufficient. The facility will support additional bulky waste recycling capacity, make use of an existing brown field and waste site, manage waste close to source, and divert over 500,000 tonnes of waste from landfill.

30 It is understood that the NLWA proposes to retain the existing areas of the site that are not utilised in the redevelopment of the replacement facility for other potential waste management activity in the future; though this is likely to form part of a further application post approval of this proposal.

31 Overall, the NLWA proposal for a heat and power facility is strongly supported in strategic terms because of the wider sustainability gains that it will achieve, not only for the north London, Upper Lee Valley area but also since it will contribute towards net self-sufficiency in London as a whole. The proposal has the potential to achieve the carbon intensity floor target (addressed in the energy section of this report) and deliver low carbon heat through connection with the planned Upper Lee Valley Heat Network and future heat recipients/suppliers.

32 It is the understanding of GLA officers that the North London waste planners, in developing the North London Waste Plan (NLWP) have been working closely with the NLWA. The timescales of the NLWA are such that the planning process could not wait for the NLWP to be adopted first. However, it is known that the NLWP is supportive of the approach being taken and the NLWP reflects the projections for waste growth provided by NLWA. The management of local authority collected waste (LACW) will therefore continue to be managed by the proposed ERF once the EfW facility has reached the end of its operational life and is therefore supported in strategic waste management terms. (Paragraph 4.2.8 of the planning statement- waste need case).

33 In reviewing the waste processes in the submission and based on discussions between NLWA and the GLA Waste Management, GLA officers would like to clarify that incinerator bottom ash, produced as a residue from the EfW incineration process is not considered to contribute towards local recycling rates, and consequently does not count towards meeting waste apportionment. Waste going for energy recovery in London does counts towards apportionment. Criteria for what activities count towards apportionment are set out in Policy 5.17 para 5.79.

34 The Mayor through his London Plan and Municipal Waste Management Strategy, expects London to be recycling half of the waste coming from households by 2020 rising to 60 percent by 2031. He states in the latter document- *"The residual waste which cannot be prevented in the first place, or put to good use, will be harvested to create greener energy and fuel. By embracing clever, cleaner technologies, we can also develop a greater capacity to deal with London's waste within our boundaries."*

35 The GLA policy approach is akin to that of DEFRA, whereby a commitment is embedded in the London Plan to drive waste up the hierarchy of waste management. The London Plan establishes policies which require waste authorities to manage as much of their waste locally as practicable, working towards managing the equivalent of 100 per cent of London's waste within London by 2031 (London Plan, 2016, policy 5.16- Waste net self-sufficiency).

36 Recycling levels in London have flat lined and the Mayor is keen for London Boroughs to do more particularly at a time when the population and number of households in London is significantly rising. The Mayor proposes through his London Plan and the Municipal Waste Management Strategy, that by 2020, London should be recycling half of the waste coming from households rising to 60 percent by 2031. He states in the latter document- *"The residual waste which cannot be prevented in the first place, or put to good use, will be harvested to create greener energy and fuel. We estimate the economic value of this to be more than £80 million. By embracing clever, cleaner technologies, we can also develop a greater capacity to deal with London's waste within our boundaries."*

37 The applicant needs to demonstrate how they will support NLWA waste collection authorities collectively meet their 50 per cent recycling target by 2020 through front end kerbside recycling in addition to the proposed pre-treatment processes onsite.

Upper Lee valley Opportunity Area/Lee Valley Heat Network

38 The Edmonton incinerator is located within the Upper Lee Valley (ULV) Opportunity Area identified in the London Plan and supported by London Plan policy 2.13. Paragraph 2.62 of the London Plan states that planning frameworks for opportunity areas *"should focus on implementation, identifying both the opportunities and challenges that need resolving such as land use, infrastructure, access, energy requirements, spatial integration, regeneration, investment, land assembly and phasing."*

39 The Upper Lee Valley Opportunity Area Planning Framework (ULV OAPF) focuses on creating growth, sustainability and housing for this important area of north London which covers

3,884-ha and which contains land under four different local authorities: Enfield, Haringey, Waltham Forest and Hackney. The most relevant objective of the OAPF in regard to this proposal is that of a Lee Valley Heat Network being linked to the Edmonton Eco Park. Haringey, Enfield and Waltham Forest Councils are all considering implementing decentralised energy systems. These would localise the production of energy, and could enable heat to be provided to properties via heat networks transporting water or steam. (ULV OAPF DIFs final report, Sept 2015).

40 The ULVOAPF states: *"The Edmonton Eco Park is the preferred location as the supply hub for the Lee Valley Heat Network (LVHN), where best use can be made of existing generating facilities. Provision will still need to be made for an energy centre within the Eco Park that has the ability to operate top-up and standby steam boilers….Location elsewhere would result in significant extra capital costs and reduce the scheme's overall viability. The network will have the flexibility to adapt and expand according to future energy demands and new heat sources that are identified and to changes in regulation. Figure 5.1 of the document suggests possible directions for future expansion."*

41 GLA officers have been working with the NLWA and Enfield Council (and to a lesser degree with Haringey and Waltham Forest Boroughs) to develop a strategic heat network throughout the Lee Valley Heat Network area, taking heat from the existing EfW plant at Edmonton and supply affordable low carbon heat for heating buildings and industry.

42 Heat networks require substantial levels of investment and having a 40 year plus life, the new ERF will give the heat network investors confidence that heat will continue to be available following the closure of the existing plant. The replacement of the existing facility will therefore assure the continuity in providing energy to the proposed 5,000 new homes in the Meridian Water (a London 'Housing Zone') area and provide for further heat supply capacity for any heat network expansion. This proposal is therefore strongly supported, being a key aspiration of the Upper Lee Valley Opportunity Area Planning Framework and in meeting the policies of the London Plan expanded on below.

Energy

43 New waste management facilities should reach a high standard of sustainable design and construction, be future proofed and avoid prohibitively costly retrofitting at a later date. It is necessary for the proposal to be as explained in the Mayor's District Heating Manual for London (2.2):

"Larger scale decentralised energy schemes incorporating district heating networks offer an affordable way of achieving low carbon energy supply in densely populated areas such as London, meeting domestic, commercial and some industrial space heating and domestic hot water requirements."

44 The NLWA has met with GLA officers and has agreed to work with the GLA at the time of selecting the steam turbine production technology to ensure an efficient and commercially viable energy supply arrangement capable operating across a range of heat demands in the future.

45 The Mayor of London has previously stated his desire to assist NLWA in the development of a heat distribution network to provide the waste heat from the Edmonton plant to local buildings. This assistance took the form of the Upper Lee Valley Energy Strategy and the subsequent feasibility studies resulting the in the LVHN project. The application refers to electrical output and the likely heat output capacity which momentarily is 35MW under the ERF proposal and 20MW under the pilot attempt from the existing EfW plant.

46 The ERF would supply electricity and operate as good-quality combined heat and power (CHP) mode, which is supported however the plant must meet the carbon intensity floor required by the London Plan.

London Plan policy 5.17 e states:

"achieving a positive carbon outcome of waste treatment methods and technologies (including the transportation of waste, recyclates and waste derived products) resulting in greenhouse gas savings. Facilities generating energy from waste will need to meet, or demonstrate that steps are in place to meet, a minimum CO2eq performance of 400 grams of CO2eq per kilowatt hour (kwh) of electricity produced. Achieving this performance will ensure that energy generated from waste activities is no more polluting in carbon terms that the energy source it replaces" (see paragraph 5.85 below).

The supporting paragraphs (5.85 and 5.85A) to this policy then state,

5.85

"To support the shift towards a low carbon economy the Mayor has developed a minimum greenhouse gas performance for technologies generating energy from London's non-recyclable waste. This minimum performance, known as the carbon intensity floor, has been set at 400 grams of CO2 eq generated per kilowatt hour (kwh) of electricity generated. All facilities generating energy from London's waste will need to meet this level, or demonstrate they can practically meet it in the future in order to gain Mayoral support. The GLA has developed a free on-line ready reckoner tool to assist local authorities and applicants measuring and determining greenhouse gas performance of waste management activities including waste-to-energy against the carbon intensity floor. This tool can be found at: http://www.london.gov.uk/priorities/environment/putting-waste-good-use/making-the-most-of-waste.

5.85A

47 *"The carbon intensity floor has been set for waste-to-energy activities in London to achieve at least a positive carbon outcome, whereby the direct emissions from the technology are offset by emissions savings from the generation of low carbon energy in the form of heat, electricity and transport fuel. This would, for example rule out new mass burn incineration facilities of mixed waste generating electricity only, but may allow combustion of waste with high biomass content where both heat and power generated are used. This approach supports technologies able to achieve high efficiencies particularly when linked with gas engines and hydrogen fuel cells. More information on how the carbon intensity floor has been developed and the ability to meet it can be found in Policy 2 of the Mayor's Municipal Waste Management Strategy. Waste to energy facilities should be equipped with a heat off-take from the outset such that a future heat demand can be supplied without the need to modify the heat producing plant in any way or entail its unplanned shutdown. It should be demonstrated that capacity of the heat off-take meets the carbon intensity floor at 100% heat supply. In order to ensure the carbon intensity floor remains relevant, the Mayor will consider reviewing the CIF level in future iterations of the London Plan."*

48 It is essential that NLWA works in co-operation with the GLA heat network team when it decides the turbine specification as in the CHP Development Strategy page 21 paragraph 4.4.3, the applicant has stated that *"the ERF can be designed to supply upto 160MWth of heat. Heat supply would impact power generation. Gross power generation would reduce to circa 15MWe with 160Mwth of heat supply."* Paragraph 4.4.5 states that *"the diversion of steam from the turbines would result in a drop in electricity production."*

49 The NLWA and the GLA agreed at that the above ERF steam turbine heat supply strategy that gave rise to the 160MWth capacity would result in an uncompetitive heat price. Both parties agreed to co-operate to establish an economically-optimised steam turbine heat off-take arrangement and supply capacity and to soft-market test the design specification.

50 The Need Assessment (AD05.04), October 2015, states in section 2.2 the approach taken to calculate carbon intensity floor (CIF). Having reviewed this, the calculation is based on known heat demand derived from the LVHN project meeting the minimum CIF requirement, and not the based on the actual energy output of the facility. However, there are expectations of the steam turbine heat capacity to be maximised and consistent with the economic production of heat that would allow achievement of the CIF.

51 The CIF can be met on the optimisation of the turbine and not the demand of the LVHN. The applicant is asked to supply a CIF assessment based on the design specification and output capacity.

52 It is not the intension for the GLA to specify the buyers of that heat but to co-operate with the NLWA in their determination of the steam turbine heat off-take capacity and that it is able to competitively supply future seasonal heat loads i.e. whereby in the winter more heat can be supplied and in the summer more electricity generated.

53 The GLA has experience of SELCHP energy from waste plant in London whose steam turbine was procured with a heat off-take capability but had not heat customers for almost 20 years. Since its inception, SELCHP only generated electricity which feeds into the National Grid until two years ago when the heat extraction use utilised to produce hot water for a new district heating network. The linking with a new heat network in Southwark has meant that the facility now supplies low carbon heat to five housing estates in South East London. The Mayor of London is an advocate for local heat and power supplies as these not only save Londoners money, reduce carbon emissions, provide a sustainable, cost effective energy supply and allow for the decommissioning of traditional gas boilers which are high carbon polluters. Such plants can be productive in a manner of ways as a result, if they are carefully selected.

54 Within the draft DCO, it is clearly stated in s.6(1) that the applicant is seeking authorisation to operate *"the electricity and heat generating station" with details of the development in Schedule 1 (1)(e) stating that the construction of an electricity and heat generating station is to include "steam turbine(s) for electricity generation including equipment for heat off-take"*.

55 In addition Schedule 2, paragraph 19 of the draft DCO requires that *"The authorised development must be provided and maintained within Work No. 1a to enable steam pass-outs and/or hot water pass-outs and reserve space for the provision of water pressurisation, heating and pumping systems for users of process and space heating located outside the order limits, and its later connection to such systems should a commercial arrangement be identified for combined heat and power which is economically viable."*

56 NLWA proposes that the scheme would be CHP enabled and that any heat off-take would be governed by two factors: firstly the existence of an actual heat demand during the life of the scheme; and secondly that any arrangements for the provision of heat be commercially viable. At present, NLWA has stated to GLA officers that neither of these two pre-conditions exists so it impossible to specify a set level of heat off-take.

57 NLWA have stated that the actual level of electricity output will be dependent on the level of heat off-take at any given point. NLWA has nevertheless engaged in ongoing commercial discussions with the Lee Valley Heat Network (LVHN) for the supply of up to 35MWth to their proposed decentralised energy network (DEN) which is still in the pre-planning phase. This is supported, however the above cited policies demonstrate that to future proof the facility, the correct technology (steam turbine) should be secured. GLA officers note that the level of heat off-take is purely an aspirational maximum heat demand by LVHN rather than an actual forecast level or secured demand at this stage.

58 It is understood from NLWA through the ongoing discussions had that NLWA has discussed kick-starting their scheme by tying their proposed network into the existing Energy-from-Waste (EfW) facility to supply an initial level of around 11MWth. In time, it is proposed that when the

LVHN's DEN and the NLHPP are both established, the proposed ERF would replace the EfW as the source of heat. The DCO application indicates the routes for heat supply pipes in the accompanying CHP Development Strategy and space reserved within Schedule 2 of the draft DCO. This is supported. The draft S106 is also the mechanism for securing heat provision to LVHN. However, to enable the steam turbine to be future proofed in terms of heat supply capacity and enable all of the above policy drivers to be delivered it is necessary for the specification of the ERF steam turbine to establish the pressure at which the controlled extraction is provided and its heat supply capacity. The GLA is addressing this within the SoCG with NLWA.

59 NLWA has taken on board this feedback and while it is unable to specify future levels of heat provision within the DCO, it has nonetheless agreed to work with GLA officers during the future soft market testing and specification of the steam turbine at the procurement phase (anticipated to be 2017-18) to ensure the ability to optimise the ERF's heat supply capacity. (This is reflected in the drafting of the SoCG).

60 The policy basis to secure these measures through the SoCG are to ensure compliance with London Plan paragraph 5.85B - Examples of 'demonstrable steps' as outlined in Policy 5.17 B e would be:

- *"a commitment (via a Section 106 obligation) to deliver the necessary means for infrastructure to meet the min CO2 standard, for example investment in the development of a heat distribution network to the site boundary, or technology modifications that improve plant efficiency;*
- *an agreed timeframe (via a S106) as to when proposed measures will be delivered;*
- *the establishment of a working group to progress the agreed steps and monitor and report performance to the consenting authority."*

61 To assist in the delivery of 'demonstrable steps' the GLA can help to advise on the heat demand opportunities for waste to energy projects, particularly where these are linked to GLA supported Energy Master Plans.

62 The S106 is with Enfield Council, however the specification of equipment which would be the driver of the heat network is as explained above and therefore the GLA consider this matter crucial as part of it's agreement with the NLWA and is drafting wording in the SoCG to that effect.

63 The delivery of this project will have a positive impact on London's economy by contributing towards the sustainable delivery of electricity and heat supply. It is in line with London Plan policy subject to the impacts set out in this report being satisfactorily dealt with.

Transport

64 Transport for London (TfL) is the strategic transport authority for London. The comments herein also form TfL's written representation to the Planning Inspectorate and relate to TfL's operational highway and public transport role.

65 TfL is the freehold owner of some land within the site that is included in the draft DCO. TfL objects to this land being compulsorily purchased. The land in question is outside TfL's current highway boundary and adjacent local authority highway. TfL need for this land to fulfil its duty as a transport and highway authority in the future is unknown, and TfL has a wider interest in how construction may impact on the highway network.

66 TfL's view is that agreement about the use of TfL owned land will allow both TfL and the Applicant to more easily plan for London's future waste and transport needs.

67 TfL would like to work with the applicant, to exclude TfL land from the order limits within the DCO and instead to agree to transfer the land or rights required, or make the land available temporarily for construction by agreement in accordance with TfL's and the applicant's requirements.

68 The land in question, ("the Site") is accessed from Advent Way, which leads to the A406 North Circular Road, part of the Transport for London Road Network (TLRN) for which TfL is the highway authority. The Site lies some 1.5km from the nearest section of the Strategic Road Network (SRN) at the A1010 Fore Street. TfL has oversight responsibility for the SRN. TfL is also responsible for the operation of all traffic signals in London, including signals over which the Applicant seeks powers.

69 TfL regulates bus services in London, procures bus services and maintains bus infrastructure including bus stops and bus shelters. Local bus routes to the Proposed Development include the 34, 341 and 444 which run within 450m of the Site, although the quality of the pedestrian routes between the Site and bus stops served by these routes is very poor.

70 TfL has various interests in the Site as indicated above. TfL has not been invited to be party to s106 agreement. TfL therefore seeks to secure commitments from the applicant which will address its concerns. These commitments could be secured within the DCO, through the s.106 agreement or by separate legal agreement between TfL and the applicant. TfL would expect as strategic highway and transport authority for London to consulted by the Local Planning and highway in relation to discharge of conditions, especially those referred to in this advice note.

Overview and update

71 TfL has previously provided written advice to the applicant on the scope of the transport assessment for the application on 9th September 2014, and further written advice on 15th January 2015, and 30th June 2015. TfL has also attended a number of meetings with the applicant and other relevant bodies. :

72 TfL has also provided advice to the Greater London Authority on the transport aspects of the proposal, which was provided to the Applicant on 27th January 2015 by the GLA.

73 The transport assessment (TA) report produced by the applicant as part of the submission should be in line with TfL's 'Transport Assessment Best Practice Guidance'. TfL has reviewed the TA and confirms the submission is generally in accordance with TfL specific advice and guidance. The applicant should therefore be required to comply with the TA findings in preparing documents to discharge conditions in DCO or obligations in s106, subject to using the most appropriate data at the time.

TfL requirements

74 TfL agrees with the proposed access strategy for the Edmonton EcoPark. This includes:

- the improvement of the existing southern access on Advent Way for the continued use by operational vehicles;
- the creation of a new eastern access route via Lee Park Way for use by non-operational traffic associated with staff, members of the public using the Re-use and Recycling Centre (RRC), visitors to the Edmonton EcoPark, and the Edmonton Sea Cadets;
- the creation of a new northern access on Deephams Farm Road for the use by construction and some operational vehicles;
- the use and enhancement of an existing access from Walthamstow Avenue to provide access to the Temporary Laydown Area; and
- the creation of a temporary construction access between the Temporary Laydown Area and Lee Park Way.

75 TfL is concerned however that the proposed development will have a detrimental impact on TLRN and local bus services if the access arrangements are not implemented in accordance with the TA assumptions as summarised above. TfL requests that its strategic transport interests are safeguarded by a requirement within the DCO or through the s106 agreement, and we are both kept informed and consulted when new information or documents are prepared.

76 The design of the junctions, cycle routes and other transport aspects of the scheme have been undertaken in accordance with the following relevant guidance:

- Design Manual for Roads and Bridges (HE, 2015);
- London Cycle Design Standards (TfL, 2014);
- Manual for Streets (DfT, 2007); and
- Traffic Advisory Leaflets (DfT, various).

77 TfL would expect the applicant to apply this guidance to the detailed design of the access and on site routes. TfL would want oversight of this process via consultation on discharge of requirements or through s106 obligations.

78 Car and cycle parking should be in accordance with London Plan standards, operational needs and overall management including during construction. During construction, TfL would seek to ensure that provision strikes the right balance between encouraging sustainable travel and minimising overspill impact during construction. This provision and car and cycle parking should be managed by requirement or via s106 obligations.

79 Walking, cycling and public transport access requirements may change in relation to other proposals in this area. TfL would seek options to improve access to the Site and encourage mode shift where practicable for the operational and construction phases. This adaptability could be allowed through s106 obligations including specific controls to safeguard existing cycling and walking links and enable future routes to be developed over the next 10 years.

80 TfL would expect a delivery and servicing plan (DSP) to be prepared for the proposed development. The service management plan included in the s106 agreement would achieve that same purpose. This would need to be updated over time and in relation to phasing. TfL understands that the applicant's ability to influence collection authorities is limited but TfL would nevertheless expect the applicant to take reasonable endeavours to influence collection authorities accessing the site alongside other vehicle movements to minimise environmental and transport impact. This could be secured in the s106 agreement or by way of a requirement in the DCO. TfL would expect to be consulted on discharge of this requirement.

<u>Water freight</u>

81 The applicant and TfL, in line with London Plan (2015) policy, would like to continue to support water freight access to the application site where feasible. A Water Transport Study has been undertaken to establish the viability of transporting incinerator bottom ash (IBA) from and municipal solid waste (MSW) to the Edmonton EcoPark. A copy of the study is included in Appendix I of the Transport Assessment (AD05.11). These have been assessed independently by Peter Brett Associates and reviewed by TfL.

82 There are a number of constraints related to infrastructure and destinations outside the control of the Applicant that make water freight costly and unfeasible. In addition, on-site constraints during construction of this project make the use of water freight difficult and costly and are not promoted as option at this stage. As such, a road based access strategy, as previously set out and assumed in the TA, will be relied upon.

83 The application includes facilities (EcoPark House) on the water's edge that limit use of the water for freight in relation to the operation of the Site. In addition, the construction of EcoPark House is required during the initial construction stage for a number of practical reasons including

to re-house the Edmonton Sea Cadets and to accommodate I.T systems displaced by the construction of the RRF. The Sea Cadets facilities will be enhanced by the project with extra visitor facilities. TfL accepts that these facilities are beneficial to the wider public.

84 The remaining part of the site has limited access to the water edge with restrictions including overhead power lines, the Lee Valley Regional Park and Green Belt.

85 The applicant and TfL accepts that water freight is unfeasible for the proposed development based on the current knowledge and the existing infrastructure on the River Lee Navigation. The applicant and TfL agree that water freight access is not ruled out for this site in the longer term as it is influenced by factors outside of the control of either TfL or the applicant. The applicant and TfL will work together to promote water freight to the application site in the longer term and it is accepted that this would be outside of the scope of the DCO.

Car Parking

86 The applicant proposes that during operation 132 car parking spaces would be provided at the Edmonton EcoPark. The level of operational parking spaces exceeds the London Plan requirements (by 27 spaces when considered wholly as an employment use) because the Site is located close to the Strategic Road Network and in an area with 'very poor' Public Transport Accessibility Level (PTAL) and limited public transport services. The Proposed Development would operate 24 hours a day using shift working patterns and public transport will not be operating when some shifts start or finish. There are also limited walking and cycling routes in the vicinity of the Application Site. TfL agrees with the proposed level of car parking on the following basis:

a. the provision of cycle parking is in compliance with the London Plan (2015) cycle parking standards;

b. the provision of car parking spaces equipped with electric vehicle charging points and the provision of disabled car parking is compliant with the London Plan (2015) standards;

c. car sharing is proposed through the design and management of the car park and through the Operational Travel Plan;

d. the Operational Travel Plan will also promote sustainable travel; and

e. some trips to and from the application site will be undertaken at off-peak times and at time when public transport is not available; and

f. it safeguards the infrastructure and promotes/supports local employment.

87 As previously stated, the provision and management of this parking needs to be secured by a s106 obligation or as a requirement of the DCO.

Implementation Matters

88 There are a number of implementation matters which are currently being discussed between the applicant and TfL.

a. the delivery and servicing plan (DSP) that will be prepared for the site prior to implementation, an outline of which is included in the TA (Section 8); and

b. the proposed approach to traffic management measures during construction of the project, included in paragraph 11.3.3 of the Code of Construction Practice (CoCP), which sets out a range of traffic management measures for implementation, where required, during construction, which TfL suggests may need further development prior to implementation to allow TfL to measure and monitor compliance appropriately. The CoCP should seek to

minimise peak hour traffic movements as far as practicable, encourage best practice for driver behaviour, management of lorry movements/ lorry routing, and encourage car sharing, walking, cycling and public transport use for construction workers. These will be undertaken through the CoCP, construction workers travel plan (CWTP) and construction logistics plan (CLP).

89 The DSP, CWTP and CLP will be prepared in accordance with TfL guidance and TfL will be consulted on drafts of both documents. It has been agreed with the applicant that any reasonable suggestions that TfL may have on the drafts will be incorporated.

90 The DSP. CWTP and CLP will be submitted and agreed with Enfield Council and a monitoring programme will be agreed. TfL accept this position and expects to be consulted.

Impact on Buses

91 Section 10.7 of the Environmental Statement (AD06.02) relating to the assessment of transport effects from construction and operation states that the very low magnitude adverse effect on public transport users in the vicinity of the site in Stage 2 of construction would have a negligible significance. During Stage 2, additional trips on public transport services would be undertaken. A total of 369 (two-way) additional employee trips per day are expected in Stage 2 when both the ERF and the existing EfW facility are running with waste input gradually transferred from the existing EfW facility to the ERF. The total number of trips includes some construction employee trips. Due to the poor public transport accessibility of the application site and the shift working patterns that are likely to be in place over 24 hours, it is expected that less than 9 per cent of the trips (i.e. a maximum of 34 two-way construction and operational staff trips per day) would be made by public transport. This would account for a passenger increase of less than 10 per cent on each of the available services at current frequencies when compared with the theoretical capacity.

92 TfL can confirm that the impact on bus services is negligible. However, during construction phases it maybe necessary to change local services to i) support sustainable travel; ii) minimise disruption to existing bus services and iii) enable all workers and visitors access to site. TfL provides bus services by contract with bus operating companies. If the applicant requests specific changes at this stage or in the future those arrangements would need to be agreed with TfL as would permits to run specific services to site. Any such agreed changed should be at no additional cost to TfL or bus operators.

Code of Construction Practice

93 TfL is concerned about construction impacts. These have been assessed in the TA and mitigation proposed including provision of CLP and other measures.

94 TfL agrees with the approach set out in the CoCP which requires Traffic Management Plans to be produced and agreed with Enfield Council, TfL and the emergency services.

95 As set out in the CoCP (paragraph 11.7.7), the proposal that the contractor would manage work related road risk through various measures is also agreed. These measures include the following:

- liaise with Enfield Council and TfL in relation to any requirement to temporarily restrict car parking on construction access routes to facilitate access to the Application Site by large vehicles;
- register for membership of TfL's Fleet Operator Recognition Scheme (FORS) or equivalent;
- ensure that all construction vehicles bear prominent signage and have an external warning device to warn cyclists of the dangers of passing the vehicle on the inside;

- ensure that all HGV's are fitted with appropriate 'active' equipment to warn the driver of the presence of cyclists passing the vehicle on the inside. This could include, but is not limited to, side safety bars, a close proximity warning system comprising a front-mounted, rear-facing closed circuit television camera or Fresnel lens, a close proximity sensor, an in-cab warning device (visual or audible) or an external warning device to make nearby road users aware of the driver's planned movements;
- ensure that all HGV's display prominent signage on the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside;
- ensure that all drivers have a driving licence check before commencing work and undertake appropriate driver training or a TfL-recommended lorry drivers awareness course for travelling in and around London;
- in the event of a collision investigate the collision and provide a Collision Report to Enfield Council, TfL and any other interested parties (e.g. the Health and Safety Executive);
- liaise with the Enfield Council/TfL to determine any need for route signage for construction vehicles and provide such signage as agreed;
- ensure that adequate signage to warn cyclists and pedestrians of the presence of large construction vehicles is prominently located at site access points and on construction vehicle routes between the Site and the TLRN and SRN;
- ensure that pedestrian, cycle and equestrian (where appropriate) crossing points at site access points and where NCN Route 1 crosses Lee Park Way are laid out in a safe manner and that where necessary the movement of large construction vehicles is supervised to minimise the risk of accident;
- maximise the use of any other appropriate safety measures; and
- ensure that any subcontractors are advised of and comply with the same requirements as appropriate.

96 TfL's oversight of this process relies on TfL being consulted on specific stages of the project by the contractor or the applicant and the contractor and/or the applicant being willing and able to follow TfL's advice. TfL recommends this is set in out in the s106 agreement and protocols agreed with TfL. TfL would accept that the formal discharge of conditions would be the Local Planning Authority after consulting TfL.

Development Consent Order- TfL specific conclusions:

97 TfL recommends the draft DCO is amended to reflect TfL strategic interest as follows:

- Definition of Code of Construction Practice should include specific requirements to minimise peak highway travel by heavy goods vehicles on Advent Way and other access roads; reduce risk of vehicles stopping on adjacent highways while waiting access to the site and encourage driver best practice.
- The applicant should understand the Network Management Duty and ensure any works to the highway or their maintenance should be managed in accordance with best practice. Schedule 2, paragraph 12 refers to consulting TfL on access; TfL considers that this will be sufficient provided the Applicant understands this duty.
- Schedule 2, paragraph 16: refers to consulting TfL on the draft Code of Construction Practice. TfL would want to ensure that TfL requirements are embedded into this document

and welcomes the commitment to consult TfL. TfL suggests prior to construction commencing a highway/transport authority stakeholder liaison group is set up.

- Schedule 2, paragraph 8: TfL would like to be consulted on this provision so that it can understand how the development is being implemented.
- Schedule 2, paragraph 10: provision of landscaping and maintenance of landscaping. TfL would like to be consulted on this aspect. TfL would like to consider the detail as it may impact directly or indirectly on the A406. This could be that positive aspects are encouraged e.g. wayfinding, pedestrian, cycle access (where we encourage best practice), reduce air pollution, or it could relate to or negative aspects e.g. driver distraction, inappropriate lighting, visibility, maintenance liabilities (which TfL want to discourage)
- Schedule 2, paragraphs 10 and 11: any trees planted within land currently controlled by TfL or near land controlled by TfL that may impact on the operation of the highway or on TfL's ability to manage the land should be presented to TfL and agreed. TfL provides guidance on this aspect in our 'Streets Toolkit'.
- Schedule 2, paragraph 13: TfL would like to be consulted on the written details of this provision. This is to ensure that the discharge of this provision does not impact on the operation of the local road network or the A406.
- Schedule 2, paragraphs 20 and 21: TfL would like to be consulted on this provision
- TfL would recommend that prior to submission of specific documents relevant to TfL hat the Applicant consults TfL and LPA consults TfL appropriately as recommended throughout this report.

Draft s106 Agreement

98 TfL has not been invited to be party to the section 106 agreement.

99 TfL's principal concern would be that during operation or construction, traffic generated by the development, traffic management or overspill parking by employee cars or delivery vehicles causes knock on impacts onto A406 or on local bus routes.

100 TfL accepts this risk is greatest during the construction phase. If the construction logistics plan is prepared and TfL is consulted upon it and it fairly reflects our requirements as requested in this note then TfL will be satisfied that the impact of the proposed development has been mitigated.

101 TfL would like to be consulted on matters related to the operation of the A406, local bus services, construction and promotion of travel by bus, cycle and foot.

Biodiversity

102 London Plan policy 7.19 indicates that such sites should be given protection commensurate with their importance. London Plan policy also sets out that if development is permitted the following hierarchy should apply: E, 1: avoid adverse impact to the biodiversity interest, 2: minimise impact and seek mitigation; 3: only in exceptional cases where the benefits of the proposal clearly outweigh the biodiversity impacts, seek appropriate compensation.

103 At this stage the GLA are content that the application meets London Plan policy, and that the impacts on the adjacent SSSI are likely to be negligible. The other impacts are more significant, but are temporary and will be mitigated by the proposed landscaping strategy.

Air quality/and other environmental impacts

104 The applicant should be required to refer to guidance relating to non-road mobile machinery (NRMM) contained within the Control of Dust and Emissions During Construction and Demolition SPG (see link)-

https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/supplementary-planning-guidance/control-dust-and

105 The SPG seeks to reduce emissions of dust, PM10 and PM2.5 from construction and demolition activities in London. It also aims to manage emissions of nitrogen oxides (NOx) from construction and demolition machinery by means of new non-road mobile machinery Ultra Low Emissions Zone (ULEZ). This SPG provides more detailed guidance on the implementation of all relevant policies in the London Plan and the Mayor's Air Quality Strategy to neighbourhoods, boroughs, developers, architects, consultants and any other parties involved in any aspect of the demolition and construction process; sets out the methodology for assessing the air quality impacts of construction and demolition in London; and identifies good practice for mitigating and managing air quality impacts that is relevant and achievable, with the over-arching aim of protecting public health and the environment.

106 The SPG, provides guidance on the implementation of London Plan policy 7.14 - Improving Air Quality, as well as a range of policies that deal with environmental sustainability, health and quality of life. Compliance with this document is required to ensure conformity with the London Plan and the Mayor's Air Quality Strategy and it therefore should be stated in the DCO or conditioned.

107 The new ERF will mitigate the nitrogen oxides (NOX) via a flu gas cleaning system. The injection of a lime slurry to reduce the acid gasses through the installation of a catalytic reduction system is supported as this will ensure air quality and health impacts are addressed from the outset. This technology is not used in the UK, however it is used in Continental facilities which are exceeding EU emissions targets and therefore the ERF would go beyond the minimum requirement. Further, the Environment Agency, the permitting authority, would ensure that the regulations are being met.

108 The proposals are acceptable in terms of London Plan Policy 5.12 Flood Risk and 5.13 Sustainable Drainage. A Flood Risk Assessment has been undertaken by Amec Foster Wheeler. The FRA confirms that the majority of the site is within Flood Zone 1, with part of the site within flood zone 2. There is no significant surface water risk identified at this site. The FRA goes on to identify that finished floor levels will be raised and that a flood emergency plan will be prepared. As an industrial facility which is less vulnerable to flooding and is located in an area of relatively low flood risk, the principle of the use of the site is acceptable.

109 The site already has an attenuation system. The proposed drainage strategy has been developed with advice from Enfield Council. It aims to achieve a Greenfield run-off rate up to the 1 in 100 year storm, through the use of rainwater harvesting, green roofs, permeable surfaces, filter trenches and 3x attenuation tanks. Residual surface water will be discharge to the Enfield Ditch. This approach represents good practice in urban rainwater management and is considered to comply with London Plan Policy 5.13.

110 Noise mitigation measures are secured through the DCO and a noise management scheme must be implemented and maintained as approved by the relevant planning authority-being Enfield Council.

111 Environmental mitigation is secured and under review by the relevant statutory bodies and GLA officers are certain that their comments would influence the final DCO through the examination process.

Conclusion

112 Having reviewed the consultation documents and after meeting with the applicant, GLA officers are of the view that the proposed facility will be an asset to London in achieving net self- sufficiency and will allow for energy gains to be achieved, as proposed by the Council's Lee Valley Heat network proposals. The applicant is asked to provide more information on how they will support NLWA's constituent boroughs to achieve its 50% recycling target, and that the ERF facility meets the Mayor's carbon intensity floor CO2 standard, in order to be considered in general conformity with London Plan waste policy.

113 Strategically, the proposal will facilitate the objectives set out in the Upper Lee Valley OAPF and the London Plan. The likely cumulative impacts from waste and energy processing; transportation and air quality /noise/flood risk impacts will need to be assessed by the local authorities however the higher level comments in this report should be noted.

114 The applicant should be required to apply the guidance set out in the Control of Dust and Emissions During Construction and Demolition SPG. This will meet the requirements of policy 7.14 of the London Plan. This should be set out in the DCO.

115 The transport sections of this report detail very specific comments by TfL who will be making separate representations to PINS given the land take concerns it has with this proposal.

116 Overall there are immense energy gains to be achieved from this proposal, not to mention waste diversion from landfill. The NLWA should continue to work with GLA officers in developing this proposal further to secure optimum decentralised energy opportunities from the energy/heat that will be generated at this site and address the energy matters raised within the report.

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