



NLHPP UPDATE AND REPORTS

Programme Committee Project Briefing



North London Heat and Power Project

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1. INTRODUCTION AND PURPOSE

- 1.1. The North London Heat and Power Project (NLHPP) is the programme of works authorised by Development Consent Order (DCO) granted in February 2017 through which the existing Energy from Waste (EfW) plant at the Edmonton EcoPark will be replaced with a new Energy Recovery Facility (ERF). The programme of works includes provision of a Resource Recovery Facility (RRF) for reception and transfer of waste, incorporating a public Reuse and Recycling Centre, EcoPark House (EPH), a visitor centre which will be used to provide community / education space and back up office space. In preparing for and carrying out the works in the NLHPP programme, the management team is working closely with LondonEnergy Ltd (LEL) the operators of the EcoPark and the current EfW plant.
- 1.2. This status report provides Members with an update on progress of the NLHPP. The report structure provides a narrative in the main body with supporting information in appendices.

2. PROGRAMME DIRECTOR'S SUMMARY

- 2.1. This report encompasses project activities throughout December 2022. The programme remains on track to deliver against all its objectives, and updates on some of the key projects and workstreams are provided within this report.
- 2.2. In relation to the deeply devastating incident, occurring on the 23rd of November 2022 in which a member of our workforce lost his life, The Health and Safety Executive, whilst continuing its investigation, has agreed to all work recommencing based on their review of each operation's methodology.
- 2.3. The schedule impact of the incident is currently being assessed by Acciona. However, engineering is progressing efficiently with the Acciona team finalising their procurement process for long lead equipment and orders starting to be placed.
- 2.4. Activity on the RRF continues at pace, with the external building envelope completing this month, including the prominent control room clad in a distinctive orange. The odour control system has also been switched on ready for commissioning in December. The positive construction progress and careful integrated planning with LEL, means the RRF is on track to start receiving waste in April 2023.
- 2.5. Interfacing activities between EcoPark South, Northern area clearance and ERF teams are progressing on schedule, with preparations continuing to handover the remaining Northern area of site, currently occupied by the Temporary Bulky Waste Facility, to Acciona.
- 2.6. Demonstrating the project's commitments to the reduction of waste, Acciona's RE-Power Communities initiative has launched, encouraging local groups to apply for community grants, volunteering hours or take advantage of a resource bank of construction materials to support community initiatives. In addition, North London Waste Authority attended a local event in Fore Street, Edmonton, where ideas to reduce food waste was shared to members of the public.
- 2.7. In this period, the project team engaged with over 150 students from a range of London boroughs, delivering workshops to students in four schools in LB of Waltham Forest and LB of Enfield.

3. SOCIAL VALUE

- 3.1. In accordance with the Programme Committee's desire to have a more in-depth review on social value, this has been provided in a separate report on the agenda.

4. COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT

- 4.1. Across the period there has been increased engagement with local groups and the communications team continue to offer opportunities for briefings.
- 4.2. North London Waste Authority attended a local event in Fore Street, Edmonton with a stall as part of a Christmas festival at Fore Street for All. The Project team spoke with members of the public about the apprenticeship opportunities that are available and developments that are taking place on the site. Further engagement was also offered to encourage people to reduce food waste and recipes to use up commonly wasted food items were given away. Over 40 people were spoken with at the event.
- 4.3. EcoPark tours have continued to showcase the progress onsite across the winter period. 5 attendees visited in December with further options available across January and February for Councillors to visit and find out more about the developments onsite.
- 4.4. The launch of ACCIONA's RE-Power Communities started on Wednesday 22 November and continues to be promoted across December and January. Joint communications are being promoted with local groups to apply for community grants, volunteering hours or a resource bank of construction materials to support community initiatives in Enfield, Haringey and Waltham Forest. Applications close on Friday 20 January and information can be found at the NLHPP website.

5. PROJECT DELIVERY SUMMARY

- 5.1. This section summarises progress in delivering the new facilities that comprise the North London Heat and Power Project which are:
- the Energy Recovery Facility (ERF),
 - the Resource Recovery Facility (RRF) and
 - EcoPark House.

The overall summary below highlighting progress on each and other supporting works is followed by a short project report on each facility. The location of current and previous facilities is shown

on the aerial photograph below.



- 5.2. Following the tragic incident in the ERF construction site work was immediately suspended, and investigations are in progress by the Principal Contractor Acciona, the Health and Safety Executive and the Police. Work has restarted on site following a review of each operation's methodology and site traffic management.
- 5.3. The schedule impact of suspension of work on the ERF site is being assessed by Acciona. The initial impact assessment will be reflected in their next monthly report and discussed at the next project progress meeting.
- 5.4. Acciona's engineering and procurement has continued to make progress. The foundation piling designs have been complete and are ready for construction, this is due to start early in 2023. The supply of long lead items such as the steam turbine and the general step up transformer is in the final stages of evaluation of proposals and negotiation by Acciona.
- 5.5. The preparations for clearance of the remaining areas of the ERF construction footprint have made progress in planning with LEL their vacation of the Temporary Bulky Waste Facility in February 2023 to enable it to be removed. As reported previously this involves bulky waste management being done off-site temporarily and expansion of the current bottom ash storage bay.
- 5.6. The RRF's external building envelope is complete including the prominent control room clad in a distinctive orange. The high voltage power circuits continue to be commissioned and have now enabled the odour management fans to be run successfully.
- 5.7. Building on the work done with LEL in previous months, the details of the minimum functionality of the facility at the start of operations has been agreed in outline for each of the RRF's primary systems.
- 5.8. The external road works and weighbridges on the western side of the RRF remains on track to be handed over in December to enable waste traffic to use the EcoPark southern entrance to access the Energy from Waste plant which has been closed for the majority of the RRF construction.

- 5.9. The RRF is expected to be ready to open to the public in late 2023 taking into account time needed to carry off site way finding works and the delays to construction of the Eastern Access Road.
- 5.10. The installation of EcoPark's district heating pipes linking the future ERF and Energetik's Energy Centre has commenced through the EcoPark South site.
- 5.11. EcoPark House construction continues to make good progress with its high quality finishes and installation of ground source heat pumps as part of its "off-grid" energy solution.
- 5.12. Further details of progress of each major element of the project are provided in the following tables.

Energy Recovery Facility (ERF)

Summary

Following the tragic incident on site on 23rd November, investigations by the Police and the Health and Safety Executive (HSE) are ongoing and will remain so for some time. The HSE have stated that they would not issue any Improvement or Prohibition Order because of their observations during the investigations carried out on the construction site.

As a result of the incident works on site was suspended. Van Elle, Acciona's piling contractor who was not directly involved in the incident restarted works following review of the method statements. Galldris, Acciona's enabling works contractor, have also resumed work on site.



Van Elle's Piling Rigs Mobilisation in the ERF Site

Successes and Milestones

Van Elle have fully mobilised onto the construction site and have completed all the necessary inductions and checks for them to commence the main piling activities. Planning and preparations are now completed for the installation of the new welfare and office block within the Laydown Area. This work was undertaken early December. Installation of the covered walkway has commenced and final preparations are being made for the installation of the pedestrian bridge over the River Lee Navigation.

The NLWA and Acciona team have agreed to refresh the contract programme to take account of the delay to the handover of the western section of the site and developments in Acciona's engineering, procurement and construction programmes. Takeover of the ERF facility by LEL is still forecast for completion in 2026.

The Authority's technical assurance team has completed the evaluation of Acciona's first architectural design package and an initial meeting been held with the Environmental Agency to agree to the permitting approach for the new ERF. Acciona are evaluating bids from their supply chain for the steam turbine generator, refuse cranes, district heating heat exchanger, condensate preheaters and the main civils works packages.

Look Ahead

A progressive start of the Galldris enabling works commenced mid-December. Van Elle will progress the test piling, shortly followed by the start of the permanent piling works around the ERF bunker. Acciona plan to approve their ground working and reinforced concrete subcontractor within the next period. Acciona and their Designers will continue to develop the design for early design packages and orders will be placed for the steam turbine, generator transformer, waste and bottom ash cranes and the air cooled condenser during late December into early January.

Resource Recovery Facility (RRF)

Summary

The RRF is estimated to start receiving waste in Apr 2023.

In the period the important odour control equipment in the RFPF has been switched on with both commissioning for Dec 22 and training to be provided to London Energy for their use of the equipment. In parallel, much progress has been made with the West Road construction and it is on track to be handed over to the NLWA/ London Energy in Dec 22.



Successes and Milestones

The RFPF external cladding and canopy works are now complete and the Crow's Nest and Link Bridge cladding has progressed well with glazing soon to be installed.

The odour control system within the RFPF has been successfully switched on and is now operational and the Low Voltage cabling has proceeded well in the period.

The West Road has been substantially completed which if handed over will enable London Energy to keep their operations separated from the E7 vehicles.

A presentation was given to Environmental Agency regarding how the RRF is positively implementing operational learning from Temporary Bulk Waste Resource Facility into the RRF.

Crossrail's Chief Engineer shared lessons with the NLHPP project on the Crossrail Technical Assurance process. Using the Building Research Establishment Environmental Assessment Method (BREEAM) RRF has so far attained a rating of Very Good as planned.

Look Ahead

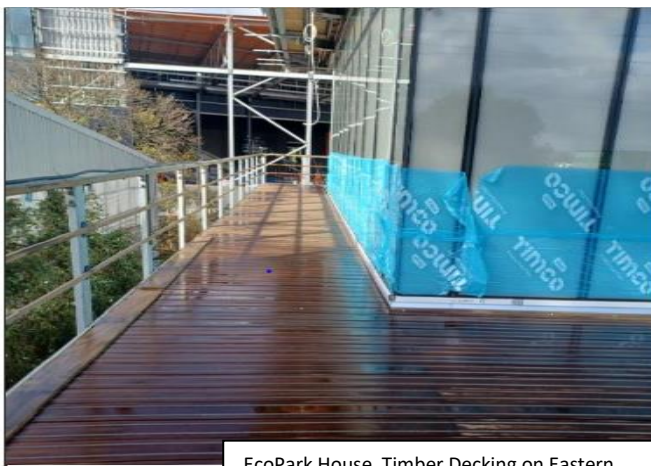
Commissioning of the odour control system will be carried out in Dec 22 as well as the training of London Energy on the odour control system. Switching on the RFPF tipping hall lights of the RFPF is planned for Dec 22.

A site visit by the Environmental Agency is planned for Dec 22 to observe how the RFPF will manage noise and odour control. Handover of the RFPF is likely now to be Apr 23.

EcoPark House

Summary

The construction of EcoPark House remains on plan to be completed in April 2023. Good progress has been made with the internal fit out of the building with MEP works making good progress and the outside is taking shape. The building will be independently powered “off-grid” and the equipment to enable this innovative solution has been delivered.



EcoPark House Timber Decking on Eastern



EcoPark House view from the River Lee

Successes and Milestones

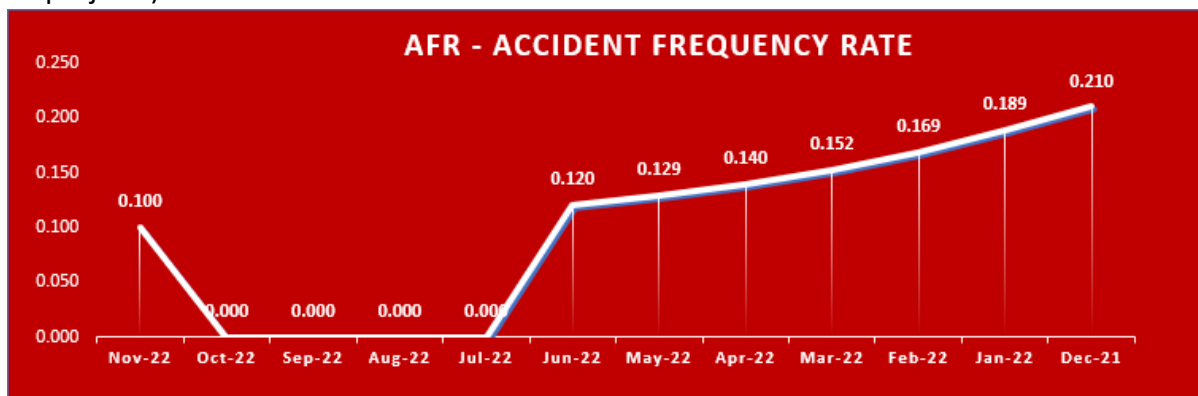
The green roof of the RFPF has been fully planted and the installation of the off-grid system is progressing well. More of the final building's aesthetic appearance has been completed, including the decking to the first floor and some of the structure overlooking the River Lee.

Internally the lift has been installed and has been tested ready for when the whole building is commissioned and the glass cladding is significantly advanced

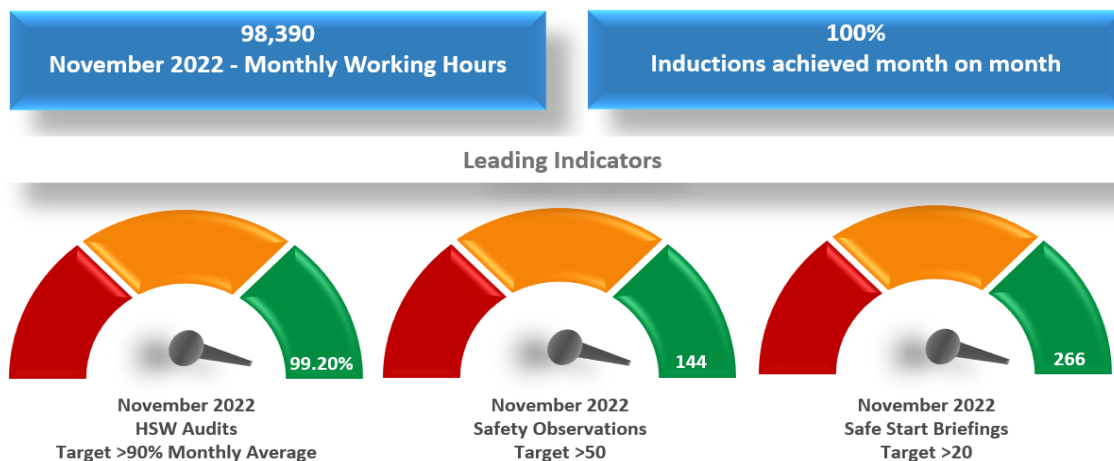
Using the Building Research Establishment Environmental Assessment Method (BREEAM) EcoPark House has so far attained a rating of Very Good as planned.

6. HEALTH, SAFETY AND WELLBEING (HSW)

- 6.1. A fatality occurred 23rd November 2022 and whilst this tragedy will of course require us to review how we improve and prevent any type of reoccurrence, the overall HSW performance of the programme remains at a high level.
- 6.2. Galldris groundworks package recommenced on 16th December 2022. The HSE recommendations have been actioned and issued by Acciona, with HSE acceptance confirmed. The construction management & HSW teams shall support Acciona in the safe restart as with the previous package of work.
- 6.3. The Accident Frequency Rate (AFR) for reportable injuries in accordance with Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013, increases to 0.10 for the programme, as a 12-month rolling AFR. Other major projects are currently running at AFR's of 0.18 (tideway), 0.06 (Crossrail), 0.10 (HS2) for a comparison. RIDDOR accidents must be reported where they result in an employee or self-employed person being away from work, or unable to perform their normal work duties, for more than seven consecutive days as the result of their injury.
- 6.4. The Lost Time Injury (LTI) Accident Frequency Rate (a performance metric that mirrors the RIDDOR description noted but uses a 3-day recordable injury baseline to measure performance for all projects) is also AFR 0.1.



6.5. Key Performance Indicators



- 6.6. **HSW Audits & Inspections:** Each construction area is inspected & audited weekly with a minimum of 4 visits per live project during any month. The NLHPP targeted average compliance score is set

at +90%. The recorded monthly average audit score for November 2022 period averages 99% reflective the good levels of HSW performance. These in-depth inspections review contractor health, safety, and wellbeing compliance in specific areas for example: work at height, lifting operations, excavations, worker welfare etc. In the coming period we intend to introduce separate inspections and audits against the sub-contractors and Principal Contractors, to give independent performance visibility

- 6.7. **Safety Observations:** The total number of observations remain high with a total 144 recorded for November, a notable uplift owing to the increased activities of the ERF project. We continually encourage reporting of observations (positive and negative) to support our drive for continual improvement. All observations are recorded and tracked to a satisfactory completion.
- 6.8. The HSW Forum was relaunched in the period, with the group setting its objectives for the coming calendar period. A further session in December shall complete the planning for 2023 and the processes to be adopted by the group in continuing the cultural improvements of HSW across the programme.

7. ENVIRONMENT AND SUSTAINABILITY

- 7.1. The project continues to focus on environmental and sustainability considerations, working to successfully manage environmental risks and identify opportunities for enhancing sustainability performance.
- 7.2. There has been continued good performance against Environment and Sustainability (E&S) Key Performance Indicators (KPIs). As shown below, three environmental incidents have been raised; however the targets for all other KPIs have been met. Performance data across all KPIs are not yet available for the ERF. The available ERF KPI information has been presented.



- 7.3. **Environmental Site Inspections:** Surveillance visits have identified that in general, environmental items were being well managed in line with good practice however there were some areas for improvement which have been highlighted in the form of environmental incidents. Two incidents were raised during the EcoPark South inspection and one on the ERF. These related to appropriate disposal of hazardous spray cans, appropriate management of concrete wagons and protection of drainage systems from silt build up during wet weather. All incidents have been followed up with the relevant contractor to ensure resolution.
- 7.4. **Environmental Observations:** Our contractors continue to champion environmental and sustainability issues on site, through raising environmental observations and exceeding their

monthly minimum target of two observations per contractor. Overall, 18 environmental observations were raised for EcoPark South (11 positive and 7 negative). The high number of observations raised is consistent with previous months.

- 7.5. **Sustainable Materials:** 100% of timber delivered to the EcoPark South site has been from recycled or sustainable sources as defined by Forestry Stewardship Council (FSC) standards. The target for this KPI is 100% of timber procured is from recycled or sustainable sources.
- 7.6. **BREEAM:** In line with our sustainability commitments, the project is required to achieve 'Very Good' (55%) rating in the Building Research Establishment's (BRE) Environmental Assessment Methodology (BREEAM) rating system, which provides a sustainability framework to deliver high sustainability performance across buildings whilst also creating positive environmental and social impact. Both EcoPark House and the RRF have currently achieved this rating and are targeting Excellent. The ERF is working towards this commitment.
- 7.7. **Environment and Sustainability Working Group:** The project E&S Working Group provides a forum to engage with contractors, to identify environment and sustainability improvements throughout construction delivery and provide a platform for communication. A workshop is being planned for January to explore in more detail the waste-related lessons learned identified during the previous working group workshop. This will also cover waste management and opportunities for materials reuse on site.
- 7.8. **Sustainability Innovations, Opportunities and Best Practice:** Taylor Woodrow have implemented an opportunity to reduce the project's carbon footprint through use of an excavator which is powered using Hydrotreated Vegetable Oil (HVO). This brings secondary benefits as HVO is made from used materials so reduces consumption of virgin fuel on site.
- 7.9. **Support to Social Value:** The Construction Environmental Assurance team supported the Social Value workstream through preparing and delivering four workshops to Year 9 pupils from North London schools as part of a wider London Schools Climate Kick-Start Event. The workshops focused on raising awareness of environmental considerations when planning new developments, link to building green skills and potential green careers. The children engaged well with the workshops, and positive feedback was received from teachers, pupils, employers, the GLA, Local London and The Careers and Enterprise Company.