

**NORTH LONDON WASTE AUTHORITY**

**REPORT TITLE:** NORTH LONDON HEAT AND POWER PROJECT UPDATE AND REPORTS

**REPORT OF:** MANAGING DIRECTOR

**FOR SUBMISSION TO:** PROGRAMME COMMITTEE


**DATE:** 7 SEPTEMBER 2023

**SUMMARY OF REPORT:**

This report provides the Programme Committee with an update on progress of the North London Heat and Power Project including the Energy Recovery Facility.

**RECOMMENDATIONS:**

The Programme Committee is recommended to comment on and note the content of the report.

**SIGNED:**  ..... **Managing Director**

**DATE:** 25 August 2023

## **1. INTRODUCTION AND PURPOSE**

- 1.1. The North London Heat and Power Project (NLHPP) is the programme of works authorised by development consent order 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, a visitor centre which will be used to provide community / education space and backup 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 June and July 2023.
- 2.2. The programme remains on track to deliver its overall objectives, on time and within budget, including takeover of the ERF in 2026.
- 2.3. The construction of the ERF by Acciona continues to make very good progress on site, with the start of the second phase of piling activity.
- 2.4. The full construction area has been handed over to Acciona for ERF construction. Acciona are establishing an onsite concrete batching plant in preparation of continuous concreting in the autumn for the waste bunker structure.
- 2.5. Taylor Woodrow continues to progress their RRF testing and commissioning programme across multiple building systems. External hard standing areas are nearing completion in readiness for LEL to bring waste to the facility for user acceptance testing.
- 2.6. The installation of the RRF's SCADA (Supervisory Control and Data Acquisition) has been a significant milestone towards commissioning of all individual systems.
- 2.7. However, rectification work is underway by Taylor Woodrow to ensure that the Authority receives a facility meeting all fire safety requirements. Taylor Woodrow have revised their initial plans for this rectification work affecting fire retardant paint on steel beams. As a result the handover of the facility will be delayed. The schedule would mean LEL bringing waste into the RRF in November for user acceptance testing, with a full, formal handover of the facility being December.

- 2.8. Engagement with the decommissioning and demolition market has started with the announcement of plans for early market engagement in October. This will help inform procurement strategies for the decommissioning and demolition of the current EfW facility and enable the market to respond to tenders when the time comes.
- 2.9. Health and safety performance in the period has generally been good, both in terms of performance indicators associated with good management practice and safety statistics achieved. The rectification work referenced above involves working at height. Two 'near miss' incidents arose as a result of loose equipment falling to the floor. Prompt action was taken in response to these to ensure best practice is applied on scaffolding. Notable improvements in high-risk people and plant interfaces have been seen this period, with a collective focus on behavioural safety and development of our 'Take 5' model.
- 2.10. Additional achievements in the reporting period include four award submissions for both the Environment Analyst Brownfield and Institute of Civil Engineer Awards.

### **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. EcoPark tours continue to be offered to stakeholders to visit the progress on site. Since April 2023, 80 visitors have been to site, and across July 2023, north London Members of Parliament were invited to visit.
- 4.2. A new round of RE-Power communities was launched in July 2023 to encourage community organisations across all seven north London boroughs to apply for grant funds up to £2,000 and volunteer support from Acciona. The round is open for applications until 29 September 2023 and will add to 15 organisations who have already received support from Acciona. Promotions were issued on social media channels and issued as part of the latest community newsletter. Updates to key stakeholders including all north London Councillors, Members of Parliament and volunteer, charity and community organisations have been issued.
- 4.3. The latest community newsletter was issued to 28,000 homes and businesses surrounding Edmonton EcoPark to provide information on the RE-Power Communities and opportunities that have been provided to date. Stories on the Women into Construction training programme and an apprentice spotlight were featured in this issue.
- 4.4. An update about NLWA exploring next steps at the Edmonton EcoPark was issued in August 2023 to trade publications. The story features the progress made in the

EcoPark South and ERF contracts with early market engagement being explored for the decommissioning and demolition of the current EfW facility once the new facilities are operational.

- 4.5. In August 2023, the NLHPP Environment week was launched to celebrate some of the key successes across the project that have been accomplished and raised awareness for environmental topics such as Biodiversity, Archaeology, Carbon Reduction, Air Quality and Circular Economy. The week coincided with Earth Overshoot Day and National Cycle to Work Day with over 76 people engaging with the content shared.

## **5. PROJECT DELIVERY SUMMARY**

- 5.1. This section provides information on the progress and outlook for each of the facilities being built and the supporting site wide activities.

### **ERF**

- 5.2. **Summary of Progress.** Acciona continue to deliver against the approved programme and remain on plan to achieve take-over into service in late 2026. Full handover of the whole site needed for ERF construction was achieved during July 2023. This enabled Acciona to progress the second phase of their piling works, which are proceeding ahead of programme. The first phase of piling is now complete. The pouring of a number of reinforced concrete slabs has also taken place in readiness for the installation of structural steel and mechanical equipment from September 2023 onwards.
- 5.3. During July 2023, an approach to joint risk mitigation has been agreed with Acciona, which has been developed to complement the existing risk processes already embedded within the NLHPP. This joint approach will bring the two senior managements teams together to review the top five challenges faced by the ERF project and will provide a forum for open dialogue to agree the most favourable approach to mitigating these. By escalating risks early, the intention is to find timely and cost effective mitigations.
- 5.4. Acciona has an obligation to provide an updated contract delivery programme in September. The project team is preparing to review this to provide appropriate check and challenge.



ERF construction site looking northwards



Phase 2 piling works in the western area of the site (two tower cranes in background)

- 5.5. **Look Ahead.** A concrete batching plant is in place on site. This supports the continued installation of reinforced concrete slabs and the commencement of above-ground concrete structures, particularly for the bunker of the new facility.

5.6. Acciona are preparing for procurement of future work packages including for the Water Treatment Plant, Continuous Emission Monitoring Equipment, Weighing Systems and Lifts.

5.7. Next period will also see the start of the boiler structural steel and grate components shipments to site.

### **RRF**

5.8. **Summary of Progress.** The external envelope of the RRF has been completed and the building is now weathertight allowing testing and commissioning to commence. The external architectural cladding and fascia of the RRC building has been completed and final mechanical and electrical installation is in progress. Taylor Woodrow have advised that work to complete intumescent painting protection on structural steelwork is taking longer than planned. This follows their notification to us in April that defects had been found. We have made clear that as this issue arose from not delivering to the specification in the contract, it must be Taylor Woodrow's responsibility to rectify the issues identified.

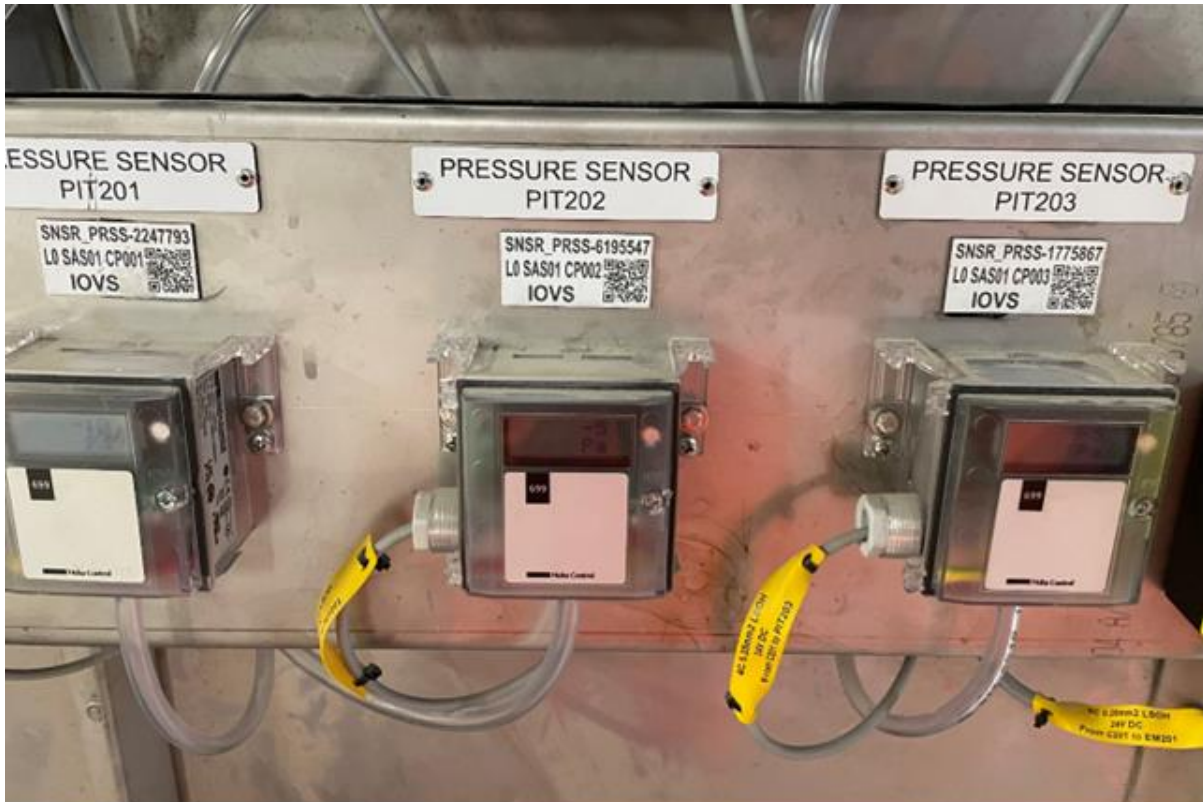
5.9. The Environment Agency has visited site for their inspection and final approvals are in process.



Aerial view of the RRF

5.10. While rectifying intumescent paint defects, progress is also being made with the electrical works to the RRF control rooms and link bridge. The key communication room within the RRF – the Crow's Nest – is completed, and furniture, fixtures and equipment are to be installed in the period to support testing and commissioning.

- 5.11. Progress was made by Taylor Woodrow with installation and testing of data and communication cabling, ventilation and security systems and fire protection equipment. Final terminations and testing have been undertaken on the communications network and the fibre network is now live to fully support testing and commissioning of critical systems. The SCADA software is now installed on site which allows for individual systems to be commissioned and SCADA signals to commence.



First asset labels installed on the IOVS System

- 5.12. Asset labelling has commenced and will be ramped up in the next period. In parallel, progress has been made in receiving the operating and maintenance manuals for LEL to incorporate into their systems and procedures. Training on the operation of the equipment is progressively delivered to align with the commissioning plan of the systems.
- 5.13. Externally, progress continues to be made to the road connecting the eastern gate to the new facilities, with utilities installed and kerbing works commenced. Similarly, the southern road has now been surfaced.
- 5.14. The concrete slabs under the canopy of the RRF have now been completed as well as the door protection upstands to the northern tipping apron.
- 5.15. Thames water connection has now been achieved allowing mains water to be delivered to site to support the testing and commissioning.



Eastern Access Ramp

- 5.16. **Look Ahead.** Testing and commissioning of the 43 mechanical and electrical systems will progressively increase as areas become available and equipment and utility connections are installed. There will be a focus on finishing office and equipment rooms to enable the facility wide communications equipment to be tested.
- 5.17. Externally, works will progress towards completion for the road between the eastern gate and the new facilities and its handover to facilitate the ERF access.
- 5.18. LEL are currently planned to bring waste into the RRF as part of the user acceptance testing in November, leading up to full handover in December.

#### **EcoPark House**

- 5.19. **Summary of Progress.** The building envelope has been substantially completed and nearing weathertightness. The rooflight has now been installed.





EcoPark House view from the River Lee Navigation

- 5.20. Building envelope close out has continued to the west elevation with completion of the canopy and installation of the metal louvres to bin stores and stairs. The capping on the timber balustrade has been finalised.
- 5.21. On the civil side internally, tiling to the Sea Cadet's showers and toilets has substantially progressed and is nearing completion.
- 5.22. Power, ventilation, comms, heating, and water distribution has continued to a limited extent though some works have been held back whilst testing and retreating of paint to structural steelwork has been taking place.
- 5.23. EcoPark House has so far attained a Building Research Establishment's (BRE) Environmental Assessment Methodology (BREEAM) rating of 'Very Good' as planned.



EcoPark House First Floor – Meeting Rooms

- 5.24. **Look Ahead.** Key focus next period will be to carry out the intumescent paint remedials. Following this, screeding and final fix of high-level services to enable testing and commissioning is expected to progress.
- 5.25. Key milestone for the next period is the successful commissioning of the heat pump and battery energy storage system which forms the off-the grid system.

#### **Site Wide Activities**

- 5.26. Demolition of the Northern Area has been completed, providing Acciona with the full footprint of the ERF site. All Phase 2 zones are now in Acciona's control.
- 5.27. The Temporary Ash Bay works are being successfully managed to enable LEL ash handling operations to progress with limited disruption. Piling for these works are due to commence by the end of August 2023 to allow slab construction to start in September.
- 5.28. Infrastructure works in the Western area of the site are being procured, planned and phased to minimise disruption to the ERF construction works and LEL operational activities.
- 5.29. The Cadent Gas main installation to serve the new ERF is targeted to start at the end of 2023.

## Decommissioning and Demolition of the Existing EfW Facility

5.30. Formal external notice has been issued for the early market engagement event for the EfW decommissioning and demolition works. The team are planning for this event to be held in October 2023 and are working collaboratively with LEL who are facilitating access for necessary site visits. The event outcomes will allow NLWA to better understand market perspectives including risk appetites, site constraints and timings, which will allow a robust procurement and contracting strategy to be formed.

## 6. HEALTH, SAFETY AND WELLBEING (HSW)

6.1. The programme continues to demonstrate a strong health and safety culture, positively comparable with other major construction programmes in the UK. The unwavering commitment to consistent and continued HSW improvement contributes hugely to the programme delivering successes such as, industry low Accident Frequency Rates (AFR), a superb and cultivating wellbeing standard developing, improvements in high-risk people and plant interfaces, focus on behavioural safety and development of our 'Take 5' model and more. Challenges are of course always present and growing as activities increase in the ERF, with our safe system of work checks and reviews ramping up to match the curve.

6.2. The AFR for reportable injuries in accordance with Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013 is at 0.103 for the programme. This reflects a very good performance against the construction industry average AFR at approximately 0.38 based on 2022 Health and Safety Executive data.

### Key Performance Indicators



- 6.3. **HSW Audits.** Following an internal programme review, it was agreed that the regular monthly site inspections will remain with the Principal Contractors to carry out to comply with the requirements of the Construction (Design and Management) Regulations 2015.

The project team has carried out a deep-dive audit on Tower Crane Management and Operation by Acciona in the ERF site.

- 6.4. **Safety Observations.** The total number of observations across the programme remain high with 500 recorded for June 2023 and July 2023. Within these figures, 210 positive behaviours and interventions were recorded which is reflective of the proactive initiatives (safe start briefings, stand downs, training, audits, etc.) that are in place across the programme.

- 6.5. **Safe Start Briefings.** The number of prestart briefings delivered daily to the workforce remain consistently high and are primarily aimed at awareness of work hazards and ongoing daily site activities. These briefings are also utilised to undertake toolbox talks specific to the type of work being undertaken on the project and cover any incidents or near-misses that have occurred to prevent recurrence.

- 6.6. Mates in Mind, a charity, are providing a Mental Health Awareness Talk on site on 29 August 2023, facilitated by mental health advocate Rob Muldoon (Mind Your Head Podcast). This event aligns with World Suicide Prevention Day in early September 2023.

- 6.7. The results of the annual HSW culture survey conducted in the early summer are being reviewed to identify continuous improvement opportunities.

## **7. ENVIRONMENT AND SUSTAINABILITY**

- 7.1. The project continues to focus on environmental and sustainability considerations, working collaboratively with the construction contractors to manage environmental risks and identify opportunities for enhancing sustainability performance. Focus on continual improvement is maintained through environmental monitoring, site inspections, environmental observations and training, pursuit of innovation and best practice.

- 7.2. There has been continued good performance against environment and sustainability key performance indicators with minimum targets either met or exceeded for the EcoPark South and ERF projects, as shown below.

- 7.3. Environmental best practice continues to be implemented on the project with focus on appropriate protection of birds during nesting season and dust suppression during dry weather with road sweeping, dampening down and additional training for operatives.



- 7.4. **Environmental Incidents.** The project has a procedure for recording and resolving any environmental incidents or near misses on site. These are recorded as either Level 1 (a significant incident), Level 2 (has caused or may cause minor harm or damage) or Level 3 (a near miss). No environmental incidents occurred in June 2023. Following the incident in May 2023 where works were undertaken near some existing trees, an arboriculturist has visited site to review the area and has prepared a report with recommendations which will be adopted.
- 7.5. **Environmental Site Inspections.** Surveillance visits are used to confirm the management of environmental issues in line with good practice, highlight positive activities and areas for further improvement and confirm that environmental monitoring is ongoing. Specific areas for improvement are followed up with the contractors on an ongoing basis. Observations from this inspection included:
- 7.5.1. Positive: good pollution control and dust suppression activities, identification of a bird's nest on site and appropriate follow up associated with this through an ecologist's assessment and implementation of recommendations.
  - 7.5.2. Negative: appropriate storage of hazardous materials in one particular part of the site (an additional hazardous waste bin has subsequently been provided in this area) and appropriate waste management (to be addressed through ongoing awareness raising with contractors).
- 7.6. **Circular Economy.** A circular economy is one where materials that are no longer wanted are reused or regenerated for a subsequent use instead of being thrown away. Opportunities for reuse of materials during construction are being considered on the project by both principal contractors. Taylor Woodrow is identifying items which will become available in preparation for completion of EcoPark South works and opportunities for these to be reused within the project or by local community and business organisations. Acciona is pursuing this through its RE-Power Communities commitments.
- 7.7. **Sustainable Materials.** The project has set a target for 100% of timber procured to be from recycled or sustainable sources, to ensure NLHPP's use of timber does not

contribute to deforestation. Across the NLHPP construction site, 100% of timber delivered to site has been from recycled or sustainable sources as defined by Forestry Stewardship Council (FSC) standards.

- 7.8. **BREEAM.** The project is committed to achieve 'Very Good' (55%) rating in the 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.
- 7.9. **Environmental Innovation and Best Practice.** The programme seeks to promote environmental innovation and best practice, with a contractual requirement for Acciona and Taylor Woodrow to implement two innovative or best practice initiatives per quarter. Taylor Woodrow has recently implemented environmental best practice with focus on appropriate protection of birds during nesting season and dust suppression during dry weather with road sweeping, dampening down and additional training for operatives.
- 7.10. **Environmental Awards.** The project has been shortlisted for the Environment Analyst Brownfield Award, in the Best Sustainable Brownfield / Urban Regeneration / Infrastructure Scheme category (<https://www.brownfield-awards.environment-analyst.com/2023-shortlist>).

## **8. EQUALITIES IMPLICATIONS**

- 8.1. There are no impacts on equality to be noted arising from the content of this report.

## **9. COMMENTS OF THE LEGAL ADVISER**

- 9.1. The Legal Adviser has been consulted in the preparation of this report and comments have been incorporated.

## **10. COMMENTS OF THE FINANCIAL ADVISER**

- 10.1. The Financial Adviser has been consulted in the preparation of this report and comments have been incorporated.

### **Contact Officer:**

Martin Capstick  
North London Waste Authority  
Unit 1b Berol House  
25 Ashley Road  
London N17 9LJ