



PROGRAMME COMMITTEE
PROJECT BRIEFING

1

NLHPP Update and Reports

9 November 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 (EPH), 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, building on the report provided to the Authority Meeting on 5 October. The report structure provides a summary narrative in section 2, with further details of progress in Health and Safety, Social Value, Stakeholder Engagement and Environmental Management across the NLHPP in sections 3 to 6.
- 1.3. Section 7 reports on commercial matters. Sections 8 to 12 provide details of progress in the delivery of the ERF, RRF, EPH, various Site Wide Enabling Works and preparations for the Decommissioning and Demolition of the current EfW plant. Finally Section 13 provides an update on plans for the operation of new facilities.

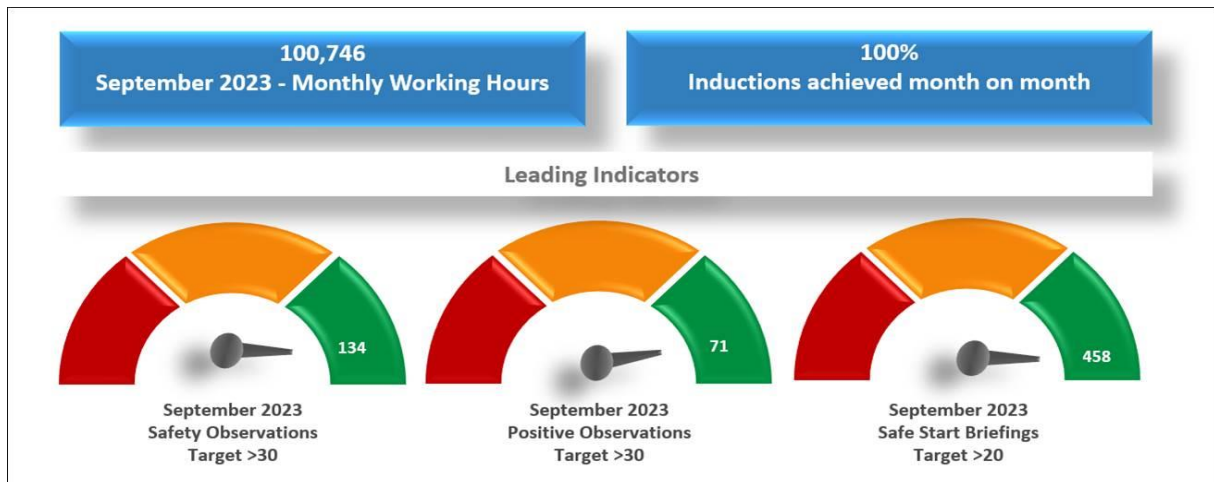
2. PROGRAMME DIRECTOR'S SUMMARY

- 2.1. The major milestone of handing over the RRF to London Energy Ltd (LEL) is expected to take place by the end of December 2023. The contractor responsible for its design and construction, Taylor Woodrow, is making good progress with the internal fit out of offices, commissioning the building's control systems and completing the external roadways.
- 2.2. Crucial to gaining the benefit of completing the build of the RRF are LEL's preparations for the start of its operations to use the facility. This is going well, with work ongoing to establish the asset management systems with the new building asset data and set up operating and maintenance procedures. LEL staff are receiving training from Taylor Woodrow on the building systems. Nevertheless, there is little float in the timetable to the December target and the project team continues to monitor closely Taylor Woodrow's performance and ensure alignment with LEL on preparations.
- 2.3. During the later stages of commissioning in December 2023, LEL will process some waste through the tipping hall to trial the odour management system prior to post-handover ramp up of operations in 2024.

- 2.4. The work on the ERF by Acciona has progressed to a new phase of construction of the building structure on the piled foundations installed over the last six months. Whereas the initial construction is largely in reinforced concrete using London-based labour and materials, the next stage of construction involves steelwork erection associated with the specialist core process equipment, mainly supplied to Acciona by Hitachi Zosen Inova (HZI). Acciona are currently procuring the specialist steelwork erection labour that comes under the scope of National Agreement for the Engineering Construction Industry (NAECI) working rules. This is a competitive labour market that is resource-constrained in the UK and therefore may require the use of overseas workers. It is a key issue for the project at the moment and we will keep Members informed of the situation.
- 2.5. The cost position has not materially changed since the report to the Authority meeting in October. Details of committed costs, actual spend and level of contingency are described in section 7. As the project progresses and contingency is drawn down through a controlled management process to address risks that arise. This is balanced by overall risk reducing as work progresses and is completed. A thorough update of the remaining risks facing the project is underway to verify the sufficiency of remaining contingency and risk reduction initiatives.
- 2.6. The NLHPP remains on track to deliver its overall objectives, on time and within budget.

3. HEALTH, SAFETY AND WELLBEING (HSW)

- 3.1. The NLHPP continues to demonstrate a strong health and safety culture which compares favourably with other major construction programmes in the UK. The client team works with the Principal Contractor's HSW teams to continually improve standards and behaviours, which is reflected in the industry low Accident Frequency Rates (AFR). This is the result of continued collaboration and focus on targeted high-risk areas such as people and plant interface and working at height. The client's safety engagement training, Take 5 was rolled out to the entire team on 16 October 2023.
- 3.2. The AFR for reportable injuries in accordance with Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013 is 0.100 throughout the programme. This reflects good performance particularly as the man hours worked during this period is up by 10% on last month.
- 3.3. **Key Performance Indicators**



- 3.4. **HSW Audits:** Monthly site inspections continue to be carried out by the Principal Contractors and reports are reviewed by the client HSW and construction teams. These are supplemented by regular walk rounds carried out by the client teams. September's deep dive audit commenced on the topic of Noise and Hand Arm Vibration (HAVS). All actions raised on previous audits have been closed out on our reporting system.
- 3.5. **Safety Observations:** Observation reporting remains high with 134 recorded for the month of September 2023. 53% of all observations are for positive interventions, which is reflective of the messaging delivered at inductions, stand downs, toolbox talks and training sessions.
- 3.6. **Safe Start Briefings:** The number of safe start briefings remain high and are delivered daily to the workforce. This is supplemented by pre-start briefings and safety stand downs targeted to reinforce positive safety messages around high-risk activities.
- 3.7. **HSW Forum:** The HSW Forum met in period with focus on lessons learned and garnered good participation from a diverse group of project representatives spanning client and contractor teams. Work is in hand to provide a digital link for lessons learned, which can be shared on the internal database. A facilitated session took place at the forum on improving communication across the NLHPP.
- 4. SOCIAL VALUE**
- 4.1. 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.

5. COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT



Figure 1: The new Sukkah built by Byrne Brothers and the plaque to unveiled on 3 October 2023

- 5.1. Stakeholder engagements in the period include visiting Leytonstone and Wanstead Synagogue following the support Acciona and Byrne Brothers provided through RE-Power Communities and giving a talk on NLWA's waste management at Southgate District Civic Voice on 21 October 2023.
- 5.2. A market engagement event was held on 10 October for 24 potential contractors interested in decommissioning and demolishing the existing EfW plant. There were further opportunities for potential contractors to visit the existing facility and have one-to-one discussions with the project team to help inform a procurement strategy. More information will be provided for suppliers on the NLHPP website.
- 5.3. The latest construction update video has been published for autumn. This is a six minute video which features the progress on the ERF construction and feedback from community groups on how RE-Power Communities has supported them. The video is on the project website at northlondonheatandpower.london/news/nlhpp-construction-update-video-autumn-2023 . A community newsletter was also issued showcasing the NLHPP Schools Programme.
- 5.4. The NLHPP has been shortlisted for the Institute of Economic Development awards. This is for two categories with the schools programme shortlisted in Most Innovative Project of the Year and Beth Parsons (Social Value Lead) shortlisted for Social Value Champion of the Year. In November 2023, NLHPP is also shortlisted for the Brownfield Awards by Environment Analyst with Public Sector Project of the Year and National Building and Construction Awards for Apprentice of the Year.

6. ENVIRONMENT AND SUSTAINABILITY

- 6.1. The NLHPP continues to focus on environmental and sustainability considerations, working collaboratively with the construction contractors to manage the

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.

- 6.2. In general, there has been good performance against Environment and Sustainability (E&S) Key Performance Indicators (KPIs) with minimum targets either met or exceeded for EcoPark South Project and ERF, as shown below.



- 6.3. **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). One Level 3 incident occurred in September 2023 where a small amount of water was discharged into an excavated hole. This was stopped and additional training will be provided on site.
- 6.4. **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 identify two innovative or best practice initiatives per quarter. In September 2023, Taylor Woodrow held an Environment Day with focus on water and spill response to engage staff and maintain focus on good onsite environmental management. Taylor Woodrow has also created a list of all materials that will no longer be needed when it demobilises from site and is exploring opportunities for either donating these materials to local community groups or selling them. This will enable the materials to have a second use in preference to disposal. Acciona continues to explore design refinements to reduce the carbon associated with the materials used to construct the ERF.
- 6.5. **Environmental site inspections:** Each month our Environment Managers conduct a general environmental site inspection 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. A programme of topic-specific audits is also undertaken, with a different topic specialist accompanying our Environment Managers each month. These cover air quality, noise, ecology, waste and contaminated land. Recommendations and

opportunities identified during the inspection are followed up by our Environment Managers to strengthen environmental management on site.



Figure 2: Site inspection

7. COST AND COMMERCIAL MATTERS

Cost Performance

- 7.1. Based on current inflationary expectations, the March 2019 baseline budget of **£1,220.6m** is equivalent to **£1,508.0m** in outturn prices (assessment undertaken August 2023 period end).
- 7.2. The NLHPP has committed **£1,300.6m** of cost. This reflects the value of work agreed in contracts for construction works, advisors' fees, NLWA direct costs and third-party fees. **£571.7m** of the committed cost has been paid to date. A further **£125.9m** is planned to be committed for construction works including the demolition of the existing Energy from Waste assets, advisor fees from April 2024 and other costs. This leaves **£81.5m** of contingency to fund risks, any unforeseen circumstances and extra costs that arise during the construction process.
- 7.3. Each quarter, the baseline budget is converted to an outturn price, including an assessment for inflation to be incurred over the 12-year NLHPP programme duration. Based on current inflationary expectations, the March 2019 baseline budget of **£1,220.6m** is equivalent to **£1,508.0m** in outturn prices (assessment undertaken August 2023 period end). The previously reported outturn cost of **£1,506.5m** was based on the assessment undertaken in the third quarter of 2023.

Commercial Matters

- 7.0. The below section includes commentary on key commercial matters on the NLHPP.

EcoPark South

- 7.1. In October 2023, a contract variation was executed by the Authority and Taylor Woodrow to update the target cost, completion dates and incentivisation model (financial reward and deductions) through the introduction of 'milestones' as noted in the report to Members in that month.

ERF

- 7.2. Acciona's requests for payments are being reduced due to the incompleteness of quality assurance documentation associated with the piled foundation design. As the information has not yet been satisfactorily provided, payments are being withheld in accordance with the contract. The Authority is working with Acciona to guide them through what is required to fulfil the requirements of the contract and enable further payments to be made.

Site Wide Enabling Works

- 7.3. The Western Road Utilities are to be tendered as a single works package, with construction forecasted to commence mid-February 2024 over a 30-week programme. The work will include temporary traffic controls at the southern end at the confluence of waste traffic leaving the current EfW facility and traffic accessing the RRF.

8. ENERGY RECOVERY FACILITY

Summary of Progress



Figure 3: A view of the boiler and bunker areas and preparations for the slipform works.

- 8.1. Acciona are currently on plan to achieve take-over of the ERF into service in late 2026.

- 8.2. The next major milestone in Acciona’s construction programme was achieved in September 2023. This has seen Acciona’s reinforced concrete subcontractor starting above ground works with the formation of the northern section of waste bunker through a process named slip-forming.
- 8.3. Acciona has also made good progress in other areas of the site with the pouring of a number of reinforced concrete floor slabs in readiness for the installation of the boiler and associated structural steel. To support this, early deliveries of boiler and structural steel from HZI have begun to arrive at Acciona’s storage facility.
- 8.4. Acciona are delayed in the procurement of their steelwork and boiler erection subcontractors, with both of these subcontract packages falling under the NAECI working rules. The reason for this delay is due to limited commitment from the market to respond to Acciona’s tender requests and specifically in relation to the constraints presented by the NAECI working rules, availability of UK-based resource and general visa restrictions related to overseas workers. If these procurements are delayed beyond November 2023, this risks affecting the overall timetable for completion of the ERF in late 2026.

9. RESOURCE RECOVERY FACILITY (RRF)

Summary of Progress



Figure 4: Aerial view of the RRF

- 9.1. With the envelope and cladding to both the Recycling and Fuel Preparation Facility (RFPF) and Reuse and Recycling Centre (RRC) buildings completed, internal finishing works has progressed including stair cores and offices.
- 9.2. Testing and commissioning of the RFPF and RRC buildings has progressed in the period and is now 20% complete with a target to complete standalone system

commissioning in the next two periods. The key Supervisory Control and Data Acquisition (SCADA) system has progressed well, and the fibre loop is now complete.

- 9.3. A settlement agreement has been reached which sets out the strategic milestones in the lead up to the revised completion date of 22 December 2023 and acceptance of the contractor's programme.
- 9.4. Final mechanical and electrical installations continue in all areas of the RFPF and RRC following the intumescent paint remedial works. The intumescent paintworks are almost complete. This was achieved by undertaking seven-day working weeks to minimise disruption to mechanical and electrical finishing works and commissioning.
- 9.5. The internal dry line partitions of the office areas have been completed and fit out of kitchen and sanitary ware has progressed along with decorative painting and tiling.
- 9.6. The odour control system within the tipping hall is operational and undergoing final testing and commissioning. As part of this, the electric shredder power pack was delivered in the period, which will generate power supply to the shredder.



Figure 5: Shredder powerpack

- 9.7. In the RRC, the final fix for power, lighting, ventilation, comms and fire detection systems has been progressed in office areas, where access is available. Remaining areas are scheduled to be released following completion of fire compartmentation works.



Figure 6: Waste bay display screens connected for testing

- 9.8. Static and dynamic signage has been completed to the roller shutter doors, which are now undergoing testing.
- 9.9. Externally, good progress has been made to all areas with all the weighbridges being completed in the period. Tarmac has been laid to the southern road and the eastern ramp. The works surrounding the ramp are almost completed, including installation of the kiosk, completing the flood compensation area and installing all fencing and road markings.
- 9.10. Concrete laying to the northern and eastern tipping slabs as well as the rolling shutter door protection upstands have been completed.

Look Ahead

- 9.11. Testing and commissioning of the 42 mechanical and electrical systems will be ramping up from now on as areas become available with equipment installation and utility connections completing in the next two months. There will be a focus on finishing office and equipment rooms to enable the facility wide communications equipment to be tested.

- 9.12. In parallel to the physical works, the asset information and manuals will be received progressively to enable LEL to incorporate into their operating procedures and receive training on the operation and maintenance of the systems.
- 9.13. Externally, an important key date to note is the completion of the eastern access ramp. This is due to be completed and handed over in the next period.
- 9.14. A key focus for the team continues to be the production of operations and maintenance manuals, training and handover documents and development of a timeline for their delivery to meet LEL's readiness programme.

10. ECOPARK HOUSE

Summary of Progress



Figure 7: Aerial view of EcoPark House

- 10.1. Following resolution on the scope of remedials, intumescent paint works have been progressed to the plant room and first floor. An additional sub-contractor has been appointed to progress the fire compartmentation works with a view to progressive release areas to mechanical and electrical trades.
- 10.2. The building is now weathertight and good progress has been made with the mechanical and electrical fitout including the comms and fire detection on the ground and first floor.



Figure 8: Exhibition Hall – civil elements installed

- 10.3. Internally, works for power, lighting, communication and fire detection installation has continued in available areas. Progress has been impacted by the requirement to remove some mechanical, electrical and plumbing services to allow access for intumescent paint remedials.
- 10.4. The external terrace decking has been installed and the boatshed construction has started. Internally, the lift installation has been completed and is awaiting testing. EcoPark House has so far attained a BREEAM rating of Very Good as planned.

Look Ahead

- 10.5. Screeding and final fix of high-level services to progress the testing and commissioning will be continued in the next period.
- 10.6. Final fix of sanitary wear and internal finishes will be progressed in the next period following the fire compartmentation works.
- 10.7. Completion of external works including the boat canopy and external road will also be progressed.

11. SITE WIDE ENABLING WORKS

- 11.1. The temporary ash bay works continue to be successfully managed to enable LEL ash handling operations to progress with limited disruption. Piling is complete and the new slab was poured in mid-October 2023.

- 11.2. Infrastructure works in the western area of the site are being procured, planned and phased to minimise disruption to the ERF construction works, as well as LEL current and planned operational activities.
- 11.3. The Cadent gas main installation targeted start date has been revised to early 2024, with estimated completion by early Q3 of 2024.
- 11.4. Remedial works to Lea Park Way were completed in October 2023, enabling this road to be opened to the public in November 2023.

12. DECOMMISSIONING AND DEMOLITION OF THE EXISTING ENERGY FROM WASTE FACILITY

- 12.1. The early market engagement event commenced from 10 October 2023 with site visits and meetings with contractors occurring over a two-week period. There are 24 companies who have expressed interest in the project. The event outcomes will allow NLWA to better understand market perspectives, including risk appetites, site constraints and timings, and will be used to inform development of strategies at this stage of the project.

13. BRINGING NEW FACILITIES INTO USE

RFPF

- 13.1. The RFPF is the main priority and main early focus for bringing into operation. This is because it is the facility which is used for gathering and bulking waste from collections and reuse and recycling centres across north London. The facility will be able to take up to around 6,500 tonnes of waste per week, consistent with its environmental permit. This will include garden waste, food waste, waste from RRCs, fly tipped waste, litter collections and bulky waste. It will also include space to be able to hold materials for specialist recycling such as mattresses and hard plastic, which will then be transported for onward processing.
- 13.2. When the facility is handed over from Taylor Woodrow, LEL will have already completed testing of the facility including managing some test waste loads. This reflects a joint approach to commissioning between NLWA and LEL so that the transition between construction and operation is as smooth as possible. Preparations for operation of the facility also include Taylor Woodrow providing training and operating manuals for LEL staff so that control systems to manage drainage, fire, safety, odour control and solar panels are all able to operate effectively from the outset. In addition to onsite activities, LEL and NLWA staff are also implementing a training programme for borough waste vehicle drivers. This is intended to ensure that when borough operatives come to site, they will be familiar with requirements and be able to manoeuvre to tip their waste and move through the site efficiently.

- 13.3. The RRF will be brought up to full capacity over a period of weeks so that any risk of interruption of service during the ramp up of usage is minimised. The specific programme for start of delivering categories of waste will be communicated with boroughs as the opening date gets closer.

RRC

- 13.4. When the RFPF is operating effectively, the next facility to be brought into operation will be the RRC. This is a separate facility with the key consideration that it will be open to the public. The public access to the RRC will be from Advent Way close to the North Circular Road, passing along Lee Park Way and into the EcoPark on the eastern side of the site. Lee Park Way is also used by construction staff to access the Acciona site when the energy recovery facility is under construction. At the start of operations the EcoPark will have substantial construction underway, and it will be important for safety reasons that effective arrangements are in place to ensure that when members of the public bring waste and recycling to the EcoPark, they are not at risk of straying into operational or construction areas. As construction work is completed the EcoPark will settle into its long term layout and usage. It is currently anticipated that initial public visits to the RRC will start in the second quarter of 2024. The first times of opening are likely to be at weekends. Weekend days tend to be the most popular for members of the public and avoid vehicles using Lee Park Way at the same time as workers are going to and from the construction site. Expansion of the service will then take account of lessons learned from early operations. Members will be consulted more fully and in good time as plans develop. The aim is to provide a positive user experience in a high quality facility.

EcoPark House

- 13.5. The other new facility in the EcoPark is EcoPark House. The ground floor use is dedicated to the Edmonton Sea Cadets, who are currently meeting in Haringey while the work on the new facility is completed. The weekly meetings of the Sea Cadets at EcoPark House will be arranged as soon as practical, recognising that the Sea Cadets are a recognised organisation with clear corporate responsibilities including for health and safety. There will be no parking capacity on site and specific arrangements will be made with the sea cadets for accessing and exiting the EcoPark. The first floor of EcoPark House is intended to have wider uses – with display space, a flexible open space and a large room which can serve as a classroom or lecture theatre with audiovisual equipment. When the EcoPark has been fully redeveloped, this will allow EcoPark House to have a prime role as a visitor centre to host schools and members of the public on tours of the facilities and to promote the circular economy.

13.6. While there is substantial work underway at the EcoPark, use of EcoPark House will be more variable to maximise its use in that interim period. Key uses which are expected are:

13.6.1. Taking advantage of the new capacity for meetings and workshops involving the Authority, LondonEnergy Ltd and others on the project. The successful transition to new facilities depends on careful coordination and planning. There is limited meeting space on the laydown area and in LondonEnergy Ltd's current facilities. It is sensible to use new space available to strengthen work across organisations to deliver an excellent service. This need not be restricted only to NLWA and LEL staff – the facility can also be used for working with boroughs and other delivery partners.

13.6.2. Educational visits. While there will be limited opportunities for students to visit facilities on site before they are completed, EcoPark House will have educational material to enable it to be used to assist schools with delivery of their environmental curriculum. The content of material will take advantages of information and expertise provided at education centres elsewhere, and it is likely the Authority will contract with an educational provider to ensure a beneficial learning experience for school parties. This will then be expanded when the EcoPark facilities are completed to allow wider visitor access to the full range of waste facilities including the new Energy Recovery Facility.

13.6.3. A meeting space open to the public. As a facility funded by the public sector, we are aiming to allow the facility to be open for public use. This could include meetings by residents groups, and even future Authority meetings. In the short term there will be constraints about how extensively this can occur while the EcoPark is still in a state of transition, but we propose that officers should look to consider favourably any proposals which could enhance the community usage of EcoPark House.

13.7. Officers will continue to provide updates and seek appropriate Member decisions to bring these assets to use over the coming months.

14. EQUALITIES IMPLICATIONS

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

15. COMMENTS OF THE LEGAL ADVISER

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

16. COMMENTS OF THE FINANCIAL ADVISER

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

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