

NORTH LONDON WASTE AUTHORITY

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

REPORT OF: MANAGING DIRECTOR

FOR SUBMISSION TO: AUTHORITY MEETING

DATE: 8 FEBRUARY 2024

SUMMARY OF REPORT:

This report provides the Authority with an update on progress of the North London Heat and Power Project (NLHPP) including the Energy Recovery Facility

RECOMMENDATIONS:

The Authority is recommended to comment on and note the contents of the report.

SIGNED:  Managing Director

DATE: 29 January 2024

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 and 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, building on the report provided to the Programme Committee for its meeting in January 2024. The report structure provides:
 - 1.2.1. **Section 2:** a summary narrative.
 - 1.2.2. **Sections 3 to 6:** further details of progress in Health and Safety, Social Value, Stakeholder Engagement, Environmental Management across the NLHPP.
 - 1.2.3. **Section 7:** reports on Cost Performance and Commercial matters of the NLHPP.
 - 1.2.4. **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.

2. PROGRAMME DIRECTOR'S SUMMARY

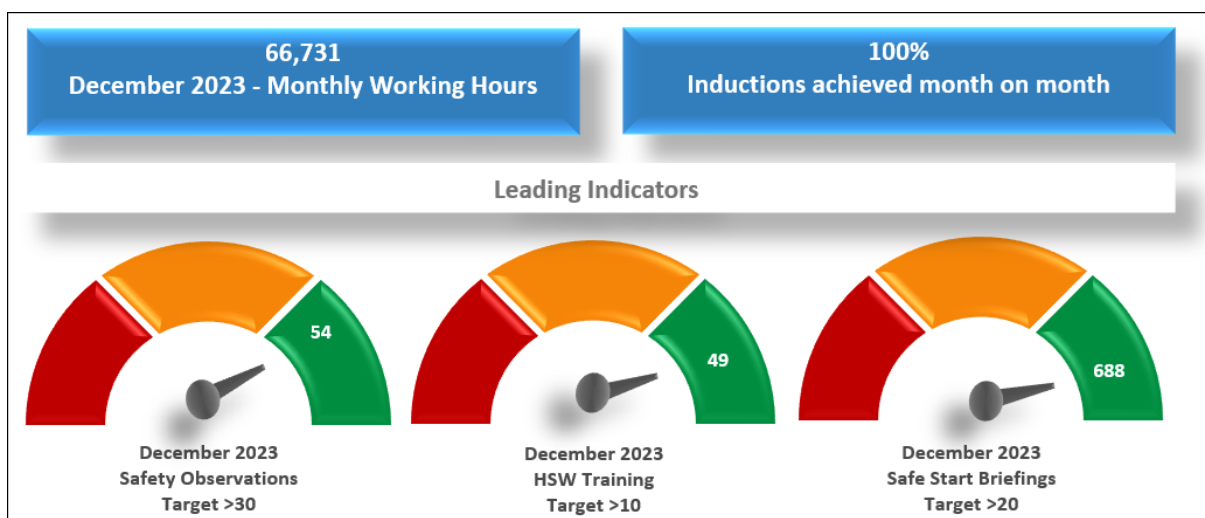
- 2.1. The completion of the RRF has made great progress in December 2023 and January 2024, with the final testing and commissioning of the traffic management and building safety systems that are key to enabling it to become operational. The final tests and quality assurance of handover documentation has revealed some gaps which were resolved in January 2024
- 2.2. There remains a number of non-critical matters for Taylor Woodrow to complete before contractual completion is awarded and therefore the start of the 12-month defects liability period. Acciona and its supply chain's process equipment for the ERF has continued to arrive, largely from overseas, and is being stored nearby until it is required for installation. Their civil works on site continue to progress well and are now in their final phase in the western section.

- 2.3. Acciona are still finalising their plans for mobilising the specialist workforce to erect steelwork that supports the ERF's key process equipment such as its boilers, to be able to start in the first quarter of 2024.
- 2.4. Our confidence of achieving the planned takeover date for the ERF in late 2026 is being reviewed internally and with Acciona to take account of the progress made last year in engineering, procurement and construction, and the challenges in the labour market for specialist construction skills.
- 2.5. Lee Park Way, which will be the public access route to the Reuse and Recycling Centre (RRC) at the RRF in due course and is a part of the Lee Valley Regional Park, has been closed to the public for upgrade. It has been reopened as a right of way for pedestrians and cyclists using National Cycle Network route 1.
- 2.6. The cost outlook position has not materially changed since the report to the Programme Committee meeting in January, and spending is broadly in line with plans for the year. Having now committed a large proportion of the budget through construction contracts and completed the RRF, the spending plans for the remaining scope is being validated and confirmed.

3. HEALTH, SAFETY AND WELLBEING (HSW)

- 3.1. The programme continues to demonstrate a strong health and safety culture which aligns favourably with other major construction programmes in the UK.
- 3.2. Activities on site are predominantly focussed on ERF. Work on Eco-Park South is limited to the snagging phase as the project is nearing completion.
- 3.3. The Accident Frequency Rate (AFR) for reportable injuries in accordance with Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013 is 0.096 on a 12-month rolling basis.

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 construction, HSW and technical assurance teams.

During December 2023, a risk-based audit was carried out on the trade effluent installation process on the EcoPark South. Concerns were picked up, shared with the contractors and addressed.

- 3.5. **Safety Observations:** Observation reporting reduced in line with the shorter working month in December. 54 were recorded for the month with 35% of all observations being 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, re-briefings and safety stand downs targeted to reinforce positive safety messages around high-risk activities.

- 3.7. **Take 5:** The Take 5 behavioural/engagement training sessions continue to be rolled out with additional sessions organised for January 2024.

- 3.8. **Wellbeing:** The client and principal contractor teams came together to share some festive celebrations over lunchtime before Christmas.

HSW survey results were shared outlining the steps that had been taken to improve feedback and communication. This included the HSW Drop In, mental health talks and training, improved maintenance and monitoring of welfare facilities and awareness of time management.

4. SOCIAL VALUE

- 4.1. The total number of apprenticeships currently underway on the Project stands at 38. A number of new apprenticeship opportunities with Acciona's sub-contractor, Byrne Brothers have been announced for 2024, with an additional 7 opportunities earmarked to come forwards across the year. Unfortunately, one Acciona apprentice left the NLHPP this month for personal reasons and another one who had been due to start an AI Level 7 apprenticeship with Acciona, unfortunately cannot proceed onto the course due to apprenticeship funding restrictions. However, there is a commitment from the contractor to keep them employed at their organisation on the NLHPP and for them to pursue a similar course elsewhere.
- 4.2. The team are exploring ways to improve retention on the project, particularly with apprentices. The next project wide Apprentice Network session due to take place in February 2024. This will involve the apprentices participating in a tour of the LondonEnergy facility and receiving a talk from the Project Manager of the EcoPark

South site. A number of Project apprentices will also feature in the upcoming Construction Update Video, which will be filmed at the end of February 2024 on site.

- 4.3. Another long term training placement has started within the Acciona Facilities Management team, bringing the total number of placements delivered on the Project to 194. This placement will run for a number of weeks and will involve learning a number of key skills necessary for work in this industry. This is another example of how the Project is acting as a key pathway to promoting long term employment opportunities. Discussions are ongoing with Women into Construction about aligning a second round of training placements with the M&E works coming forward under the NAECI contract. This is to be discussed further at the Spring Social Value Governance Board (in March 2024).
- 4.4. The Project is just below target with its local spend commitments at 9% (target of 10%), that is, the percentage of contractors spend with the local supply chain in the NLWA area. A second Meet the Buyer event for the ERF contract is also earmarked for 7 February. This is to be held in person, particularly focussing on local business who can participate in the following services:
 - 4.4.1. Turbine Erection;
 - 4.4.2. Air Cooled Condenser Erection;
 - 4.4.3. Equipment Erection Balance of Plant and Piping;
 - 4.4.4. Stack and GRP Piping Erection;
 - 4.4.5. Cladding;
 - 4.4.6. Building Services:
 - 4.4.6.1. HVAC Building Services (plus electrical cabinet, earthing and bonding, louver, secondary steelwork and general MEP);
 - 4.4.6.2. Lighting and Power Building Services;
 - 4.4.6.3. Communications, CCTV, Telephony & Data and Public Address
 - 4.4.7. Insulation;
 - 4.4.8. Refractory Insulation;
 - 4.4.9. Painting;
 - 4.4.10. Electrical; and
 - 4.4.11. Instrument and Controls Installation.

- 4.5. Local employment is also on track at 24%. A recruitment event is being held on Monday 19th February at the Engine Room in Tottenham to generate a talent pool of skilled workers for ACCIONA's contractors. This will be advertised by NRL, ACCIONA's recruitment contractor, and via the NLHPP's social media channels, to encourage as many local residents to attend as possible. Vacancies will continue to be advertised via the usual channels (including the Social Value Governance Board, with job brokerages and via the website and social media channels).
- 4.6. A number of school events also took place during December 2023. The team visited two schools in Waltham Forest to participate in career fairs and Acciona hosted two students site visits from schools in Enfield (Highlands School) and Haringey (London Academy of Excellence). Students have returned to school after the festive break and a number of new opportunities are in the pipeline for students of all ages and across different boroughs. In particular, the team is pursuing interest from a number of local primary schools, who have requested to visit site for a tour and associated STEM based workshop.



Figure 1: The Acciona Social Value team visited George Mitchell Careers Fair, in Waltham Forest, to promote opportunities on the Project with local students

- 4.7. A total of £143,067 has been donated to local community organisations, with Round 2 of RE-Power Communities underway. Engagement with Christian Kitchen in Waltham Forest took place this month, with excess food from the canteen donated to families in need during the festive season. Social Impact Days have also been established as part of the newly launched NLHPP Apprenticeship Network. Acciona apprentices will shortly be undertaking a day's worth of volunteering with a local community group. This was due to take place in December but is in the process of being re-arranged due to weather conditions.

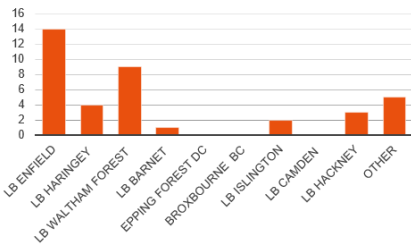
Social Value Dashboard

Social Value Theme	Target	Progress
Development Consent Order (DCO) Obligations:		
Apprenticeships	100	92 years of apprentices' employment created
		46 apprenticeship opportunities created
		38 apprenticeships delivered/ underway
On-site Skills Training Placements	225	194
LB Enfield targets, adopted as measure by NLHPP:		
Local Labour	25%	24%
Local Businesses	10%	9%
		£32.5m (local spend by contractors to date)
		£42.0m (local spend by NLWA & contractors to date)
Delivery against Industry Benchmarks:		
Equality, Diversity & Inclusion (EDI)	The project aims to promote women in on-site construction workforce	3%*
	The project aims to promote Black, Asian and Minority Ethnic (BAME) Groups in on-site construction workforce.	14%*

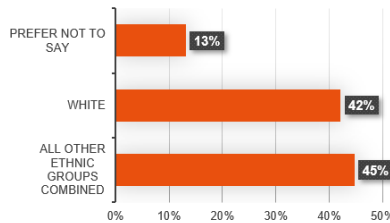
*Not all employees have chosen to report on ethnicity and gender, and the statistics are likely an underestimate. NLHPP is working with contractors to improve data collection.

Apprenticeships

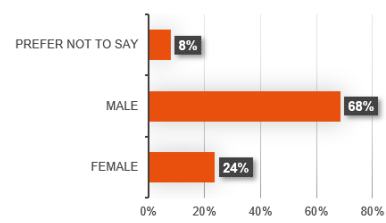
Apprentices - Home Borough



Apprentices - Ethnicity



Apprentices - Gender

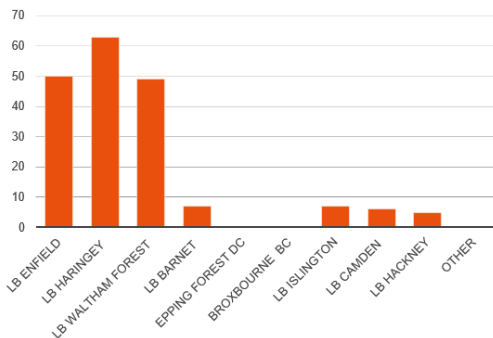


Apprentices - Home Borough	Local Wards
LB Enfield	Bowes (2); Bullsmoor (1); Grange Park (1); Haselbury (1); Jubilee (1); Lower Edmonton (2); Southbury (2); Winchmore Hill (1)
LB Haringey	Tottenham Central (1); White Hart Lane (1); Northumberland Park (1)
LB Waltham Forest	Higham Hill (2); Larkwood (1); Hatch Lane & Highams Park North (1); William Morris (1); High Street (1); Endelbury (1); Chingford Green (1); Chapel End (1); Leytonstone (1)
LB Hackney	Haggerston (1); Woodberry Down (1); Hackney Wick (1)
LB Barnet	Barnet Vale (1)
LB Islington	Finsbury Park (1); Holloway (1)

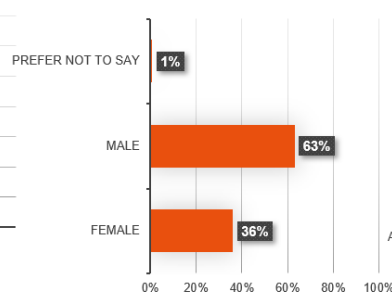
Apprenticeship Type & Number of Apprentices
Civil Engineering (11), Quantity Surveyor (8), Corporate Responsibility & Sustainability (3), Electrical Installation (2), Business Admin (2), Civil Site Supervisor (1), Plumbing (1), Project Controls (1), HR Support (1), Content Producer (1), Safety, Health and Environment (2), Formwork (4), Accountancy (1), Chartered Surveyor (1), Construction Management (1)

Training Placements

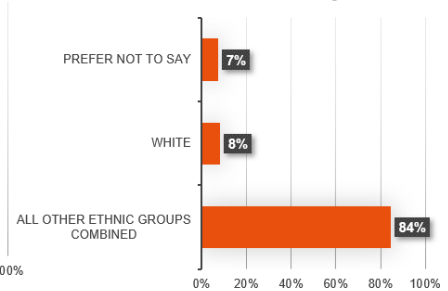
Trainees - Home Borough



Trainees - Gender



Trainees - Ethnicity



Delivery & Monitoring:

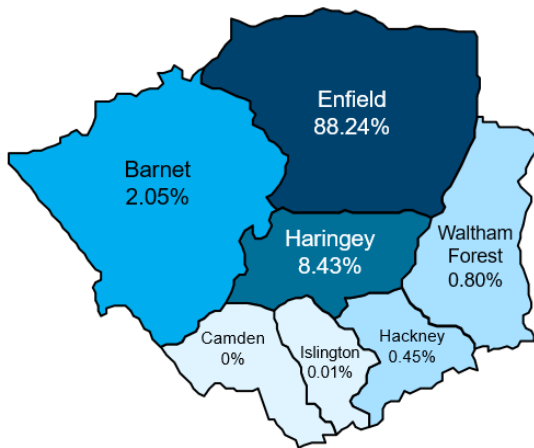
Delivery of training placements is targeted at a variety of EDI groups. To date, all trainees are from groups forming part of our EDI categories including long-term unemployed and lone parents.

Training placements are prioritised for local residents (in particular in LB Enfield, LB Haringey and LB Waltham Forest, followed by other north London boroughs). Recruitment of trainees is facilitated through engagement with local Job Centres and agencies.

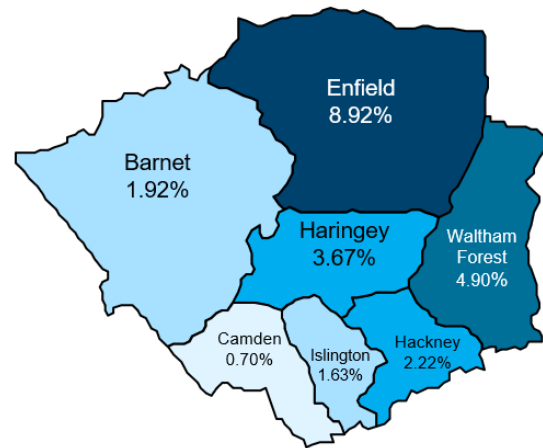
EDI data relating to the on-site trainees is collected through an end of placement survey and where possible supplemented by information from the training provider. Not all respondents have chosen to report on ethnicity and gender. Information is based on a responses from 119 out of 138 trainees (86%).

Local Business Spend and Local Employment

Local Business Spend by Borough



Local Labour (all jobs) by Borough



The maps above display the distribution of local business spend and borough of local residents across the NLWA area, with the darker colours representing a higher percentage share. It is recognised that there is a disparity in terms of the distribution of local spend and local employment. The team will continue to signpost employment opportunities available on the Project through the Social Value Governance Board as well as via local job brokerages. As development of the ERF continues, more procurement opportunities for local businesses will arise through the supply chain. A number of 'meet the buyer' events will be held with local SMEs throughout the year, open for all businesses across the NLWA area. These opportunities will be promoted through the Social Value Governance Board and via the NLHPP digital channels.

Schools Programme and Community Projects

Schools Programme

	Secondary	Primary
Total Number of schools engaged	49	3
<i>LB Enfield</i>	13	1
<i>LB Haringey</i>	8	1
<i>LB Waltham Forest</i>	13	-
<i>LB Barnet</i>	4	-
<i>LB Islington</i>	5	-
<i>LB Camden</i>	1	1
<i>LB Hackney</i>	5	-
<i>Other</i>	-	-
Number of SEN Schools Engaged	5	
Number of PRUs Engaged	1	
Number of sessions held (including colleges)	81	
<i>Sessions on careers topics</i>	69	
<i>Sessions on STEM topics</i>	10	
Number of students engaged (including college students)	2,510	
Number of staff involved	148	
Number of staff hours	324.5	
Number of site visits	19	

Community Projects

	Number of Organisations Supported	
<i>LB Enfield</i>	8	
<i>LB Haringey</i>	9	
<i>LB Waltham Forest</i>	7	
<i>LB Barnet</i>	2	
<i>LB Islington</i>	1	
<i>LB Camden</i>	3	
<i>LB Hackney</i>	4	
<i>Other</i>		
Total	34	
	Delivered	Target
Number of volunteer hours	501	9,775
Donation total	£143,067.13	£187,500.00

5. COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT

- 5.1. January 2024 marks five years of construction at the Edmonton EcoPark. A series of communications activities celebrated achievements to date, including a construction update video, social media posts, website update and communication to stakeholders.
- 5.2. Communications were shared with neighbours and key stakeholders following the opening of Lee Park Way on 2 January 2024 for public pedestrian and bicycle access.
- 5.3. NLWA is supporting the development of a recruitment microsite with Acciona's subcontractor NRL. NRL is hosting a recruitment fair in February 2024 to attract skilled, interested job seekers from the local community and build a database for future employment opportunities on the NLHPP.

6. ENVIRONMENT AND SUSTAINABILITY

- 6.1. In addition to our ongoing emphasis on assuring compliance with environmental requirements and identifying opportunities to enhance sustainability performance, we have been focused on gathering and reviewing the necessary final environmental documentation relating to handover of the EcoPark to LEL. This includes waste records, close out of environmental incidents and environmental method statements.

December 2023 Performance

- 6.2. Performance against a selection of Environment and Sustainability (E&S) Key Performance Indicators (KPIs) in December 2023 is shown below.



- 6.3. As Taylor Woodrow concentrates on the concluding phases of the EcoPark South project, the environmental risks are minimal and no environmental training toolbox talks were conducted by Taylor Woodrow in December 2023. Throughout the year, Taylor Woodrow successfully conducted a total of 77 toolbox talks, surpassing the target of two talks per month. These sessions comprehensively addressed a diverse

range of issues, showcasing the company's commitment to proactive communication and exceeding expectations.

- 6.4. **Environmental Incidents:** No environmental incidents occurred during December 2023.

7. COST AND COMMERCIAL MATTERS

Cost Performance

- 7.1. The NLHPP outturn cost forecast cost is currently £1.51bn considering the costs incurred up to the end of November 2023 in line with the £1.42 to £1.52 bn estimate reported in April 2023, that includes a £75.9m of contingency. The project has committed around 85% of outturn costs, which includes contracts for construction works, advisors' fees, NLWA direct costs and third-party fees. Spend to date was £635.2m which is 42% of the outturn costs, that is approximately half of the committed costs left to be delivered, which is largely for the ERF construction contract with Acciona.
- 7.2. The cost of construction of the RRF rose in the second half of 2023 as reported which consumed contingency. However, these costs have now stabilised with greater certainty of costs to complete.
- 7.3. As well as overcoming risks through progress, the risk profile is also being adversely impacted by challenges the main contractor for the ERF, Acciona, is facing with the availability of some specialist skills in their mechanical works that are governed by NAECI.

8. ENERGY RECOVERY FACILITY

Summary of Progress



Figure 2: Acciona's Offsite Laydown Area

- 8.1. Acciona has awarded the subcontract for the final phase of the civils works in the western section of the site. The completion of these works will enable Acciona to commence the installation of the ERF building steel structure, in readiness for the installation of the steam turbine, flue gas cleaning, ash handling, air cooling systems and flue stack.
- 8.2. Acciona continues to work with its preferred supplier and the unions to finalise a subcontract, industrial relations and union agreements, and immigration processes for the boiler and steelwork erection activities. These agreements should have been completed in late 2023. The impact of this delay is currently under review in consultation with Acciona, with the intention of confirming any impacts to the ERF take over date.
- 8.3. From an overall programme perspective, Acciona's performance in quarter one and quarter two of 2024 is critical in the delivery of quarter four 2026 ERF take over milestone. Acciona's construction programme allows for twenty-four months to complete the mechanical installations of the ERF plant through to the end of 2025. Achieving this mechanical completion milestone is essential to allow time for completion of the commissioning and performance testing activities by quarter four 2026.

Look Ahead

- 8.4. Delivery of critical boiler sections from Acciona's supplier HZI, the first of these shipments are due to arrive at the EcoPark during January 2024

9. RESOURCE RECOVERY FACILITY (RRF)

Summary of Progress



Figure 3: Aerial view of the RRF and Eastern Road

- 9.1. Construction of permanent works continued to be progressed in all areas of the RRF. Taylor Woodrow is now targeting mid-January 2024 for handover of the RRF however, it faces challenges to achieving this, primarily the extent of outstanding testing and commissioning activities and handover documentation. The project manager expects an early February 2024 date as more realistic.
- 9.2. Taylor Woodrow's key milestones for RRF building control approval was achieved on 22 December 2023.
- 9.3. In the Recycling and Fuel Preparation Facility (RFPF) building, the remainder of the internal finishes and final cleaning out progressed through December 2023. In the RRF internal finishes and painting have been significantly progressed allowing delivery of the office and kitchen furniture. The NLHPP team still considers that the testing and commissioning milestones for standalone and integrated testing and commissioning of all the systems remain outstanding and are planned to be completed in January 2024.

- 9.4. The integrated testing and commissioning have been progressed to the RRF which has included fire cause and effect tests, black building tests and traffic management systems commissioning.
- 9.5. Delivery of wet waste, in coordination with LEL, was achieved allowing commissioning of the odour management system and trade effluent system.



Figure 4: Testing with waste

- 9.6. LEL continue to undertake their User Acceptance Tests (UAT) with borough vehicles.
- 9.7. In the RRC, standalone testing and commissioning continues to be progressed in parallel with final finishes.
- 9.8. Ensuring the timely submission of handover documents is another crucial aspect that requires careful focus. Taylor Woodrow has dedicated additional resources and extended their work week to proficiently manage the significant volume of submittals required for as built information and record packs.
- 9.9. Externally, good progress has been made to all areas with installation of the street furniture along with landscaping, fences and gates.

- 9.10. The Eastern access ramp was successfully handed over to LEL for their operational use.



Figure 5: Northern Tipping Apron cleared in preparation for testing with waste

- 9.11. In parallel to any outstanding physical works, the asset information and manuals will be received progressively to enable LEL to incorporate into their operating procedures. An inspection of the facilities will be undertaken by London Fire Brigade. Taylor Woodrow is to complete the final builders clean to enable the integrated testing and commissioning of the ventilation system.

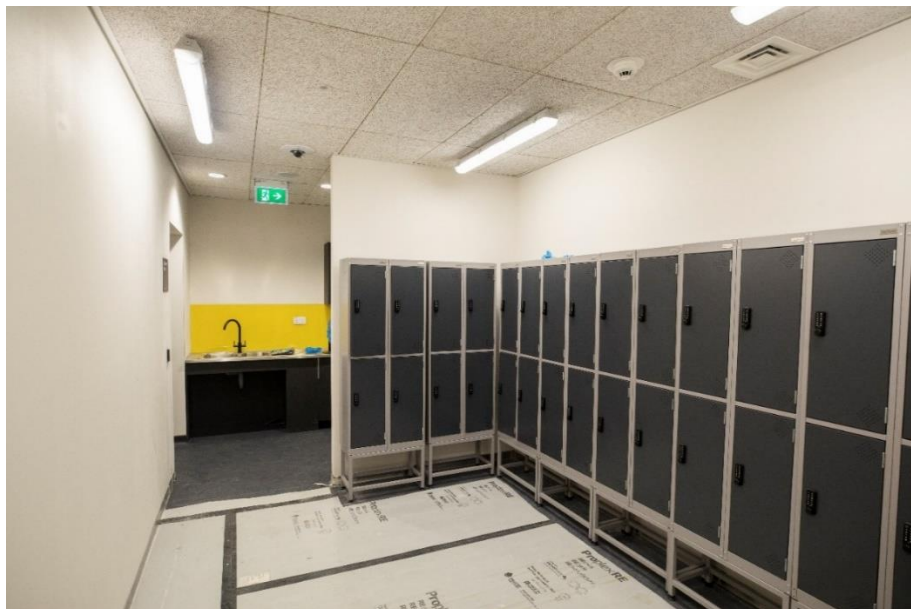


Figure 6: Furnitures, Fixtures and Equipment Installation in RRC

- 9.12. A key focus for the team will continue to be the assurance of operations and maintenance manuals, delivering the training sessions to LEL, and early assurance of handover documents, such as records relating to the construction works and

final drawings showing the facilities as they were constructed, to meet LEL's readiness programme.



Figure 7: Weighbridges

10. ECOPARK HOUSE

Summary of Progress



Figure 8: EcoPark House – Aerial View

- 10.1. Resources have been prioritised on the RRF as it is more critical to the Authority and LEL's operations in the short term. The Taylor Woodrow team have implemented workshops with the delivery team and key suppliers to mitigate the impact. Taylor Woodrow report planned completion of EcoPark House and handover mid-March 2024.
- 10.2. Intumescent paint and fire compartmentation works are nearing completion, allowing reinstatement and installation of remaining services.
- 10.3. Timber decking continues to be progressed as well as removal of backfill to north end of Enfield ditch.
- 10.4. Internally, works for power, lighting, communication and fire detection installation has continued in available areas in preparation for commissioning.

Look Ahead

- 10.5. Final fix of high-level services to progress the testing and commissioning will be continued in January 2024.
- 10.6. Phased submission of handover documents continues to reflect works completion on site.

11. SITE WIDE ENABLING WORKS

- 11.1. The Ash Bay Extension works have been completed, with operational handover to LEL planned for late January 2024. This will mean that LEL will shortly cease to require a seven-day a week ash collection service.
- 11.2. Tenders for the Western Road Utilities Corridor works are due in January, with a start on site targeted from April 2024.
- 11.3. The Cadent gas main installation targeted start date has been revised to the second quarter of 2024 to allow conclusion of necessary land easements with estimated completion in quarter four 2024.

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

- 12.1. The project team is currently preparing a report to present their findings and feedback from the early market engagement event. The report will set out a plan and schedule for the procurement strategy phase.

13. EQUALITIES IMPLICATIONS

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

14. COMMENTS OF THE LEGAL ADVISER

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

15. COMMENTS OF THE FINANCIAL ADVISER

- 15.1. As reported elsewhere on this agenda, the Corporate Peer Challenge, undertaken in early 2023 recommended that the Authority should be clear about how it will manage the inevitable maintenance and replacement costs involved in the life cycle of the facilities. The Budget & Levy 2024-25 paper explains the rationale for the Authority creating a maintenance reserve that will be built up over time.
- 15.2. This will provide the both the Authority and constituent boroughs with greater financial certainty as it will enable the authority to manage the peaks and troughs of both planned and unplanned maintenance without having to pass these costs immediately back to boroughs through the levy.

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