



North London Heat and Power Project

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The North London Heat and Power Project is replacing a 53-year-old energy from waste facility at the Edmonton EcoPark with a new Energy Recovery Facility (ERF) to process up to 700,000 tonnes of waste each year and provide electricity to the national grid and heat to a local district heat network.

The project includes a Resource Recovery Facility (RRF) to maximise recycling from bulky waste and other materials, and a new public Reuse and Recycling Centre (RRC). EcoPark House will be a new visitor centre and community space for local residents, as well as a waterfront home to Edmonton Sea Cadets.



Aerial View of the completed Resource Recovery Facility ready for operation

A new programme director was appointed after an open, competitive process, following the previous director's retirement. The successful candidate, Peter Andrews, has extensive experience in overseeing projects both in the UK and internationally, particularly in the power, petrochemicals, and waste sectors.

In 2023/24 we focused attention on the transition of new facilities into our and LEL's operations and established a Joint Transition Steering Group with LEL to oversee the integration of construction project activities with the operational readiness activities. This focused on the RRF and the learning from this is now being taken forward with transition plans for the ERF.

We looked ahead to the decommissioning and demolition of the current energy from waste facility, and conducted a market engagement exercise to gather industry perspectives on approaches to procuring this work in the future. Feedback welcomed the early engagement with the market in planning resources and making best use of market capability.

NLHPP received five awards in 2023/24:

- *Best public sector project of the year* and *Best sustainable brownfield infrastructure scheme* at Environment Analyst's Brownfield Sustainability awards.
- *Most innovative project of the year* at the Institute of Economic Development Awards
- *Energy/infrastructure team of the year* at the LLP awards
- *Culture and diversity award* at the Partnership Awards.

The project was also highly commended for *Best workplace mental health team* at the Mates in Mind Awards and *Most engaged employer* by the Women in Construction scheme.

Energy Recovery Facility construction progress

During 2023/24 Acciona were given full possession of the northern area of the EcoPark and the adjacent construction laydown area. This enabled Acciona to progress the civil and structural works involving the installation of over 1600 foundation piles, reinforced concrete bunkers and heavy foundation slab for process equipment.

25 key pieces of equipment were procured, manufactured, and delivered to site and a nearby holding area, ready for installation. These are intended for the commencement of the mechanical, electrical, and plumbing work in the Flue Gas Treatment building and the Incinerator Bottom Ash area. A temporary ash handling bay was built for the existing Energy from Waste (EfW) centre to make the northern area available for ERF construction. It will operate until the EfW is no longer in operation.

Acciona worked with relevant trade unions to establish a Special Project Agreement under the National Agreement for the Engineering and Construction Industry (NAECI) "Blue Book" working rule agreement. NAECI sets comprehensive terms and conditions of employment for hourly-paid engineering construction workers on major and basic engineering construction projects. In the context of the ERF scope NAECI applies mainly to the construction of the process equipment.



Aerial View of the ERF site under construction

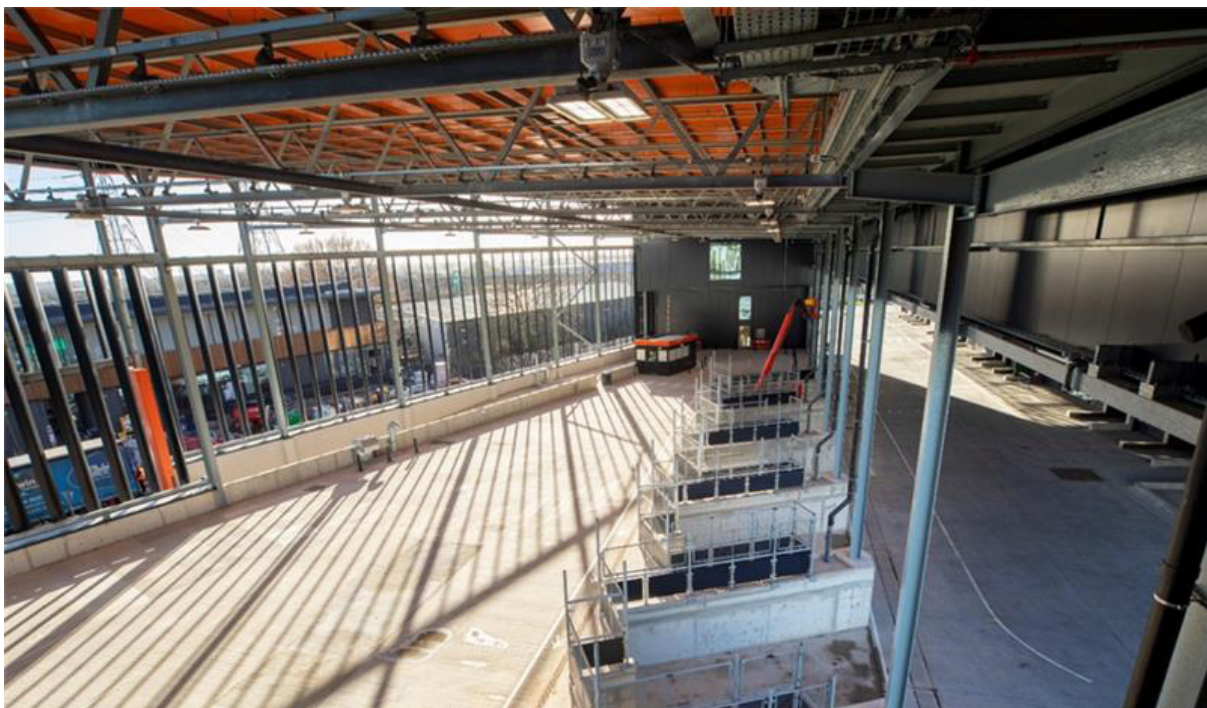
Resource Recovery Facility

In 2023/24 Taylor Woodrow completed the construction of the RRF including the commissioning of the buildings systems over the second half of the year, which will enable it to function as a modern waste management facility.

In March 2024, we formally entered into a contract with LEL to operate the new RRF and handed the building over to start the operational ramp up in the brand-new recycling facilities. This significant milestone on the project is the culmination of many years of hard work and is the biggest investment in public sector recycling infrastructure for London in decades. The public reuse and recycling facilities are scheduled to open in summer 2024.

The RRF has a solar panel array the size of a football pitch on its roof which is now in operation. Since being switched on in early 2024, over 50,000 kWh were produced and used on the site to substitute power from the national grid. The building has an Integrated Odour and Ventilation System (IOVS) which can filter the air inside the building up to four times per hour. Vehicle access doors are automatically controlled so that air is emitted mostly through the IOVS. Traffic management is highly automated to enable operational efficiency and interface with other building systems such as the IOVS.

The commissioning of the RRF's systems has been complex spanning across over 50 individual interfacing systems that are controlled with a high degree of automation. Although commissioning was led by the Principal Contractor, Taylor Woodrow, we applied robust assurance of their work to achieve the handover of a facility that we were confident in working safely, effectively, and efficiently from the outset. LEL's engineering and operation teams were heavily involved in the commissioning which included training and user trials.



Inside the completed Reuse and Recycling Centre within the Resource Recovery Facility

EcoPark House

Construction on EcoPark House, which will provide space for community and educational use as well as providing a waterfront base for the Edmonton Sea Cadets, approached completion in 2023/24 and will be brought into use in the autumn of 2024. The building is completely off-grid, being supplied with electricity from the RRF solar array and heating through a ground source heat pump. During the year, NLWA did extensive preparation to ready the building, maximise the education offer, optimise the way it will operate to provide community benefits, and best serve the needs of north London residents.



EcoPark House under construction

Health, safety, and wellbeing

The project demonstrates a strong health and safety culture and the current Accident Frequency Rate (AFR) for reportable injuries in accordance with Reporting of Injuries, Diseases and Dangerous Occurrences regulations (RIDDOR) is at 0.200 across the project. This compares favourably with other major construction programmes in the UK.

Following a 2023 health, safety and wellbeing culture survey, actions were taken to improve communication, share lessons learned and integrate the management team with site operatives. Two health, safety and wellbeing forums were put in place to encourage more participation from operatives and drive improvements and initiatives forward.

Take 5 training was introduced to the project in October 2023 to break down barriers between site and non-site personnel. This is always an issue on construction sites and the project aims to be industry leading in this area and *Take 5* now forms part of the onboarding process for all new starters.

The *Mates in Mind* initiative continued, and sessions were adapted to encourage more attendance. In August 2023, a mental health awareness talk was hosted by mental health advocate, Rob Muldoon (Mind your Head podcast). This was well attended and received great feedback. Other health, safety and wellbeing initiatives carried out in 2023/24 include:

- Exclusion zone training to allow staff to see the actual sight lines from heavy machinery and the size of required exclusion zones
- Virtual reality session on people and plant interface
- Fallen worker rescue drills
- Working at height safe card system to improve logistics in high risk areas and coordinate different trades and contractors
- Waste bunker rescue drill

Equality, diversity, and inclusion

In 2023/2024, we implemented a wide range of activities and initiatives across the project to enable, champion and embed inclusion on NLHPP.

Our team celebrated Black History Month, International Women's' Day and Movember, creating opportunities for those who work on the project to learn and celebrate each other's rich cultures and experiences.



International Women's' Day

We continued to raise the profile of and empower women on NLHPP by creating a platform for women to build connections as well as learn from each other. In our lunch and learn sessions, we explored topics such as imposter feelings, career development in the construction industry, collaboration, mental health awareness, menopause, and regular career spotlights on women across the programme. 93% of attendees agreed that the project's women's network is raising the profile of and empowering women on NLHPP. The group also continued to work closely alongside the leadership team to inform the strategic approach to inclusion on the project.

An event to celebrate five years of NLHPP was held, where teams shared their experiences of pride on the project. All speakers talked passionately of working on a project that champions and drives an inclusive working environment, with many sharing personal experiences of the reverse mentoring programme and winning awards for inclusion on NLHPP.

The team also worked collaboratively with Acciona to deliver the 'Juntos We Can Programme,' a behavioural based initiative which introduced us to the collaborative behaviour buddies, including the inclusion buddy 'Sam.' These behavioural buddies were then launched through the lunch and learn series, promoted via posters on site and embedded into the collaborative ways of working on the project. To complement these sessions, Acciona also developed bitesize Vroomly videos accessed through QR codes to make the content as widely accessible as possible.

We ran our fourth reverse mentoring cohort with eleven early careers mentors, primarily from groups under-represented in the construction industry matched with senior leaders/experienced mentees across the project.

Social value

In 2023/24 the project continued to deliver social value for local communities. Construction contractors supported opportunities for local residents across the seven boroughs including providing apprentices, employment and training, procurement with local businesses, community projects and an increased focus on schools engagement.

The total number of apprenticeships created on the project reached 46, with further apprenticeship opportunities earmarked within the supply chain to come forward later in 2024. The apprentice network was re-launched, with visits to LEL and the Brent Cross Regeneration Project, and career talks delivered by experts across the project team.

Training placements continued to focus on supporting under-represented groups into construction with cohorts of women, special educational needs, and unemployed people on the project. As of April 2024, 195 placements had been created. In 2023/24 there was a concerted effort to enrich the quality of placements. This included a supported internship in collaboration with West Lea School, Enfield and developing a long term supported placement

with Barnet Mencap.



Apprentice network LEL tour

Employing local residents remained a priority, with 20.3% of workers from the seven north London boroughs. There was a decrease in the proportion of local workers due to the specialist nature of roles required at this stage of the Energy Recovery Facility build. This will continue over the coming years as complex works and fit out of the best-in-class technology is installed. To ensure as many opportunities can go to local residents, Acciona appointed a recruitment company, NRL, to develop a talent pool for the recruitment of specialist workers and job opportunities continued to be shared with local employment networks and borough councils.

In 2023/24 the local supply chain spend across the project reached over £45.8 million. This includes over £4.5 million with a Haringey-based concrete supplier for the ERF contract. Opportunities to procure local businesses will continue to be identified across all contracts.

The schools programme went from strength to strength in 2023/24, with site visits now available to schools alongside in-class sessions. As of April 2024, over 3,000 students have now been engaged with. The success was recognised in the Institute of Economic Developments Awards in 2023 as the 'most innovative project of the year'.

The second round of RE-Power Communities was held in 2023/24, which has led to 36 local organisations receiving grant funding, volunteer time and resources.

A Social Value Impact Study was commissioned to ascertain the wider impact of the project, through quantitative and qualitative analysis. A data gathering exercise has been conducted and further research and reporting will be completed in 2024/25.



Students from Haringey Sixth Form College visiting the NLHPP Site.

Community engagement and communications

As a public authority, it is crucial that we ensure local residents and groups are accurately informed about the project. In 2023/24, we continued to maintain our communications and community engagement work as construction progressed.

We ensured that we responded accurately and quickly to enquiries from residents and groups, and proactively communicated about the most commonly raised themes. In particular, we produced more materials about the environmental features of construction and the new buildings in a series of videos for the website on air quality, carbon, circular economy and social value.

The website northlondonheatandpower.london had a refresh with more intuitive design and an audit of all content. The site continues to provide extensive project information, videos

and announcements. Following the refresh we have seen an increase in users, with 21,000 visits in 2023/24, compared to 18,000 the previous year.

On social media, NLHPP channels continue to issue proactive posts which have seen a decline from previous years in negative sentiment. Across all channels, posts were seen 26,277 times and received 1,285 interactions. Posts were mainly focused on promoting job opportunities, support for community projects and construction milestones.

We issued 15 press releases to local and regional media. Responses to six formal enquiries about the project were published, which shows a significant reduction in interest from 22 responses in the previous period.

Three newsletters were printed and delivered to 28,000 homes and businesses. The newsletters are also available at: northlondonheatandpower.london/community

We held 21 visits to the EcoPark for 160 visitors to see progress on the construction sites and one in-person Community Liaison Group meeting.