

6. North London Heat and Power Project

The North London Heat and Power Project is a £1.2bn project to replace a 50-year-old energy from waste facility at the Edmonton EcoPark. A new energy recovery facility (ERF), will be able to process up to 700,000 tonnes of waste each year and will provide electricity to the national grid and heat to a local district heat network.



Concept image of the new ERF facility

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. EcoPark House is a new visitor centre and community space for local residents, as well as a home to Edmonton Sea Cadets.

In January 2022 we signed a contract with Acciona to build the new ERF, and preparations are being made to start construction. This year we made significant progress on constructing the RRF and EcoPark house, which are set to open in 2023. The entire project remains on time and on budget, as set out in 2019.

Energy recovery facility contract award

The highlight of the project this year was completing a thorough tender process that started in 2020 and was fully compliant with public procurement regulations.

In June the “dialogue” phase started in which Acciona’s submission was thoroughly reviewed to ensure that it fully met our requirements. In September, the Invitation to Submit a Final Solution was issued with the tender return fully evaluated for compliance and value for money.

In December, being satisfied that the procurement process had resulted in a best-value solution for the delivery of the ERF and that the ERF remained the best solution for North London’s needs, Members voted to award the contract to Acciona. The contract was signed on 24 January 2022.



Members of the NLWA and Acciona Senior Management visiting the Ecopark after Contract Award

Construction progress

The most visible construction progress in 2021/22 was made by Taylor Woodrow on the resource recovery facility, public reuse and recycling centre and EcoPark House. Major piling, foundations and structural steelwork were completed, there was significant progress on the roofing, glazing and other parts of the superstructure, and work started on mechanical and electrical services.

There were some delays in the supply of some construction materials, but we took action to ensure no “knock-on” delay to the ERF contract and overall completion of the Project.



Aerial view of the RRF and RRC under construction with EcoPark House in the right foreground

A major success was completing the temporary bulky waste recycling facility in the north of the site on time and on budget. This will allow the old bulky waste facility to be demolished to make way for the energy recovery facility, before the new resource recovery facility is complete. It provides LEL with a modern, fully licenced and safe means of continuing to deal with large volumes of bulky waste, whilst being engineered to be easily demolished and allow maximum reuse and recycling of construction materials. The project also saw the first use in the UK of Ultra-Low Carbon Concrete, helping further reduce the carbon footprint of the construction.



External view of the completed Temporary Bulky Waste Recycling Facility

Enfield-based Galldris Construction Ltd, having previously completed three works contracts on the Project, maintained their involvement with major civil engineering subcontracts to Taylor Woodrow on both EcoPark South and the temporary bulky waste facility.

Barhale Ltd completed the diversion of the Angel and Chingford sewers beneath the new RRF and public reuse and recycling centre. The use of an innovative construction technique (simultaneous pipe-jacking from a single shaft) enabled the project to be completed to time and budget.

Acciona joined the site in January 2022, ahead of the start of construction in October 2022. Several of Acciona's major subcontracts have been placed, most notably for the design and installation of the "chute to stack" equipment with HZI, and for the engineering and architectural design with Empresarios and DB3.

All the contractors have obtained Considerate Constructor awards for their sites. The scheme raises standards in the construction industry, particularly in relation to protection of the environment, the workforce and the local community. Taylor Woodrow achieved Ultra Site status from the scheme with the aim of being a 'Beacon of Best Practice' in the construction industry. More than 99% of construction waste continues to be recycled and diverted from landfill.

Health, safety and wellbeing

Having taken firm and decisive steps in 2020 to address the impact of the COVID-19 pandemic, the Project site continued to be a safe place to work in 2021/22. During the height of the pandemic we used innovative wearable technology to promote safe distancing among workers. Since the start of 2021 we have provided free on-site Lateral Flow Testing and continued regular communication about the risks of transmission and how to stay safe at work and whilst travelling. This means absences were minimised and there was a minimal impact on the Project's progress.

We have continued to prioritise safe working with the aim of achieving zero harm. In 2021/22, the Accident Frequency Rates for reportable injuries remains at zero against a representative construction industry rate of 1.63.

Hard Hat Media screens on the site allow key messages about health, safety and wellbeing to be communicated to staff in an interactive, engaging way. In 2021/22 we developed and launch wellbeing initiatives, particularly focusing on the mental health of the construction workforce – a high priority given the challenges across the industry.



One of the Hard Hat Media information totems

Equality, diversity and inclusion

In 2021/22 we implemented a plan to create an inclusive culture and remove barriers to development or opportunity for the hundreds of staff working on the Project.

An inclusive leadership programme brings together leaders from across the Project to collectively explore the challenges. We acknowledge key dates and events from a wide range of cultures and subjects, from International Women in Engineering Day to World Mental Health Day. We run Safe Space sessions for colleagues to share experiences, discuss challenges and build confidence, as well as promote advocacy and positive bystander behaviours.

A 'reverse mentoring' programme paired 18 senior leaders with early-career team members from underrepresented groups, leading to outcomes of increased awareness and appreciation of diverse perspectives by leaders, and increased confidence for early career team members.

According to engagement surveys measuring project team perceptions, there has been a 20% reduction in experiences of assumptions being made about people based on their ethnicity (22% in 2020, and 17% in 2022); with the equivalent measure for gender remaining at circa 25%.

Social value

The Project plays an important role in creating skilled apprenticeships and providing opportunities for local communities. We take proactive steps to help remove barriers that underrepresented groups may experience when entering and pursuing a career. During 2021/22, seven apprentices were appointed, including civil engineers, quantity surveyors, and mechanical and electrical roles. This takes the total number of apprentices to 20. The energy recovery facility contract will bring a large number of apprenticeship opportunities and a new recruitment drive is being planned for summer 2022.

Our on-site skills training placements provide a much-needed route into employment and training for local unemployed people. The Project has achieved 132 training placements to date, more than halfway towards the project target of 225. The trainees have been gaining pre-employability experience and Construction Skills Certificate Scheme (CSCS) cards as part of their training.



NLHPP on-site skills trainees with Taylor Woodrow

Our schools programme gained considerable momentum in 2021/22 despite COVID-19 induced challenges. We delivered 23 sessions in nine schools in Enfield, Haringey and Waltham Forest. As part of the sessions, children were told about range of roles which a project like this offers in the construction and engineering sector, as well as the different career paths which are available to them.



Heathcote School and Science College NLHPP Site Visit & Careers Sessions

Local employment remains a priority on the Project, with the aim to achieve 25% local workforce. To date, 18% of the project workforce has been from the local area. New employment opportunities have largely been limited to apprenticeships, but this is expected to change as new roles are created on the ERF contract. We ensure the project is represented at local careers fairs and work with local boroughs to ensure local residents are directed to our vacancies.

20% our contractors' supply chain spend has gone to businesses in Enfield, Haringey and Waltham Forest, against a target of 10%. Further supply chain opportunities are becoming available as part of the ERF contract with a number of events planned in 2022/23 to encourage local businesses to tender for opportunities on the Project.

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 2021/22, we increased our communications and community engagement work as construction progress became more visible and we prepared to award the energy recovery facility contract.

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 air quality, carbon emissions, capacity of the new energy recovery facility and the new recycling facilities.

We expanded and updated the website northlondonheatandpower.london with extensive Project information, videos, frequently asked questions (FAQs) and announcements. The website received 45,000 visits in 2021/22, compared to 18,000 the previous year.

On social media, tweets from @nlhpp were seen 147,791 times and received 6,485 interactions. On Facebook and Instagram, we targeted residents within the seven north London boroughs, reaching 369,137 people.

We issued 26 press releases to local and regional media at key points in the Project. This includes 24 proactive and 2 reactive press releases.

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

We held five in-person roadshows to talk to residents face-to-face, and three virtual Community Liaison Group meetings. We also arranged two rounds of focus group to provide insights into local awareness and understanding of the NLHPP and NLWA services.



NLHPP roadshow stall

Priorities for 2022/23

The first construction priorities for 2022/23 are completing the resource recovery facility, EcoPark House and public reuse and recycling centre. These will then need to be commissioned and handed over to LEL for operation.

On the energy recovery facility, the priorities will be ensuring resilient and robust technical assurance of the design, handing the site over to Acciona and preparing it for construction.

On social value, the priority will be to work with community groups to ensure the contract with Acciona brings positive benefits to local residents.