



Market Information Day – 22 January 2020

Energy Recovery Facility





Introduction

Martin Capstick, NLWA Managing Director

Housekeeping





North London Waste Authority



- 1. North London Heat and Power Project**
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Jim Kendall, Operations Director (LondonEnergy)
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Martin Capstick
Managing
Director



David Cullen
Programme
Director



Richard Bean
ERF Project
Manager



**Robert
Sedgman**
Commercial
Lead



Jim Kendall
Operations Director
LondonEnergy



Esther Howe
Social Value
Lead



North London Heat and Power Project

David Cullen, NLHPP Programme Director

The Space Shuttle Challenger Disaster

- A vehicle that was celebrated for its technical prowess broke up 73 seconds into the flight.
- NASA's management had developed a careless attitude towards safety warnings coming from the engineering community and had been warned to cancel the launch due to cold weather.
- NASA asked whether the engineers could prove, without a doubt, that the risk was high enough to the shuttle so that lift-off should be postponed.
- The wrong question was asked; “can you prove it is unsafe?” rather than “can you demonstrate it is safe?”
- This fundamental logic is relevant to our identification of safe systems of work at site.



NLHPP site layout





NLHPP programme vision



“Create a waste management facility in which local communities take **pride**, which demonstrates **value**, and is a model for **public sector project delivery**.”





What's important to us as a client?



- Helping us deliver the NLHPP Vision
- Supporting Health, Safety & Well-being Excellence
- Building the best environmental solution for north London's waste
- Maintaining waste management operations at the Edmonton EcoPark
- Creating the right commercial environment
- Being a positive model for employment relations
- Being welcomed by the community
- Provide apprenticeships, training and local employment opportunities

A capable client team

- Integrated delivery team including specialist support
- “Internal” reporting lines and governance
- “External” governance through borough oversight; extra dimension of control and accountability
- Stage gated project development with independent assurance





A Safety First culture



We are committed to delivering a project that puts the **health, safety and wellbeing of everyone involved in the project** and those working and living in the local community as the **number one priority**.



Approximate construction timetable



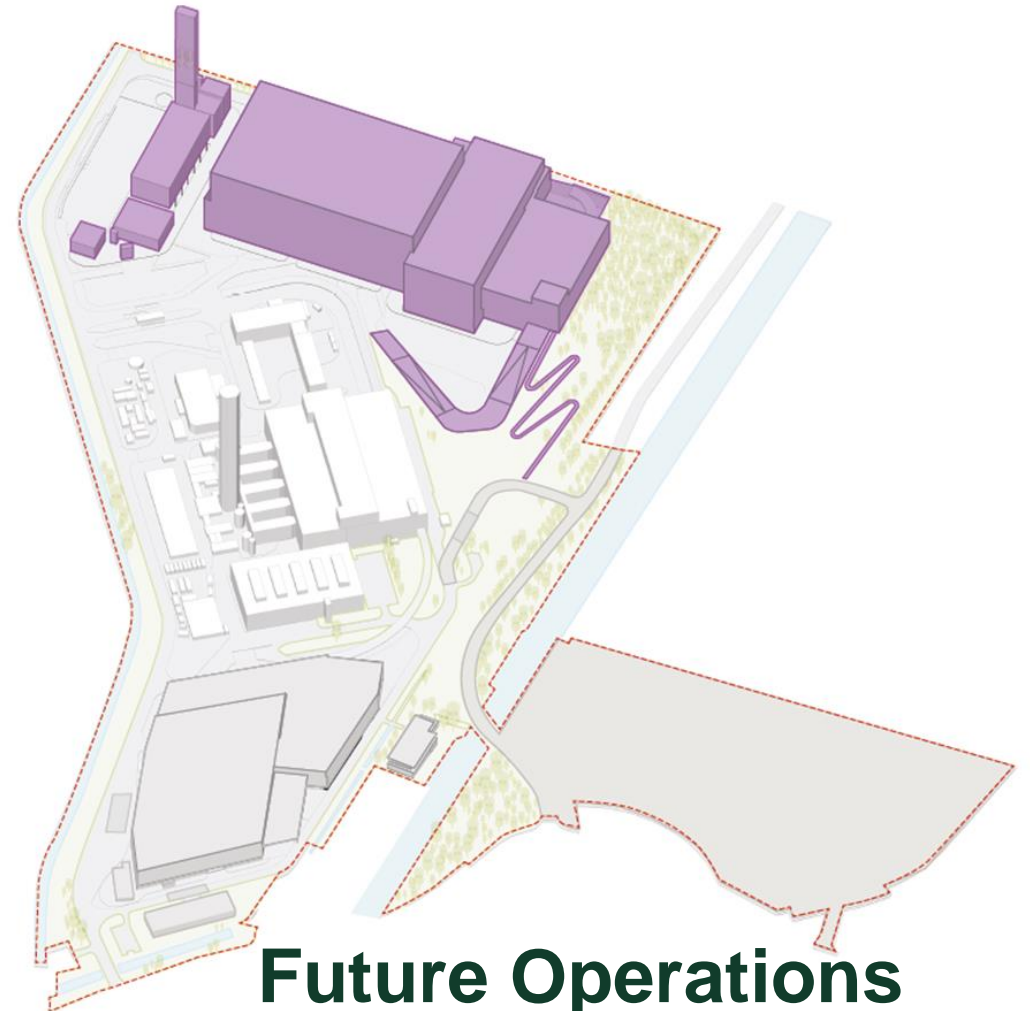
| Preparatory Works | | EcoPark South Works | | ERF Construction | | Post-ERF Works | |
|-------------------|----------------|---------------------|----------------|------------------|----------------|------------------|----------------|
| Works began 2019 | Works end 2023 | Works begin 2020 | Works end 2023 | Works begin 2022 | Works end 2025 | Works begin 2027 | Works end 2031 |



Scope of ERF works

Richard Bean, Project Manager

ERF Construction



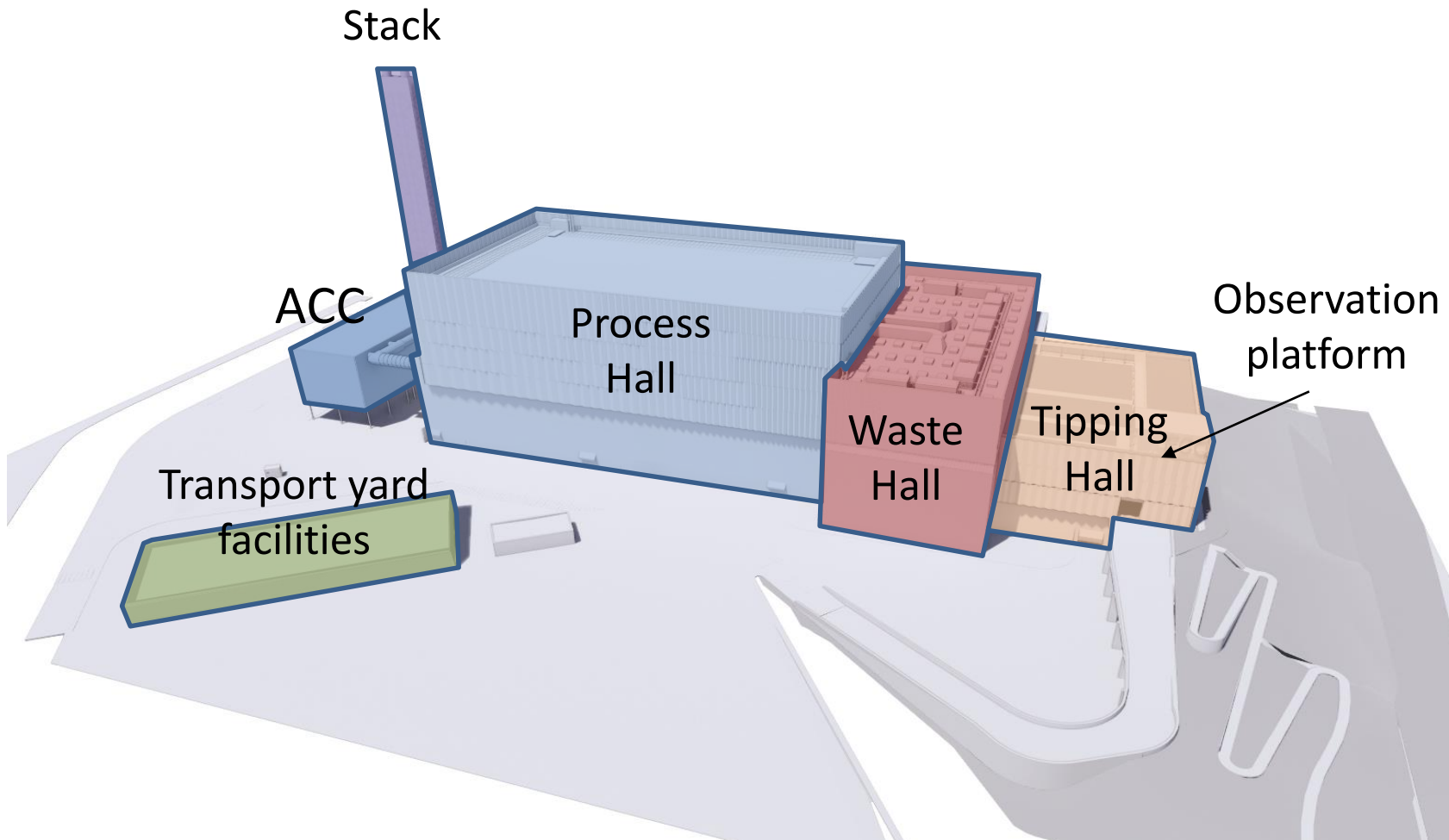
Site preparation



Legend

-  Existing Buildings to be demolished
-  ERF and ancillary buildings proposed
-  ERF Battery Limits - Area of Works

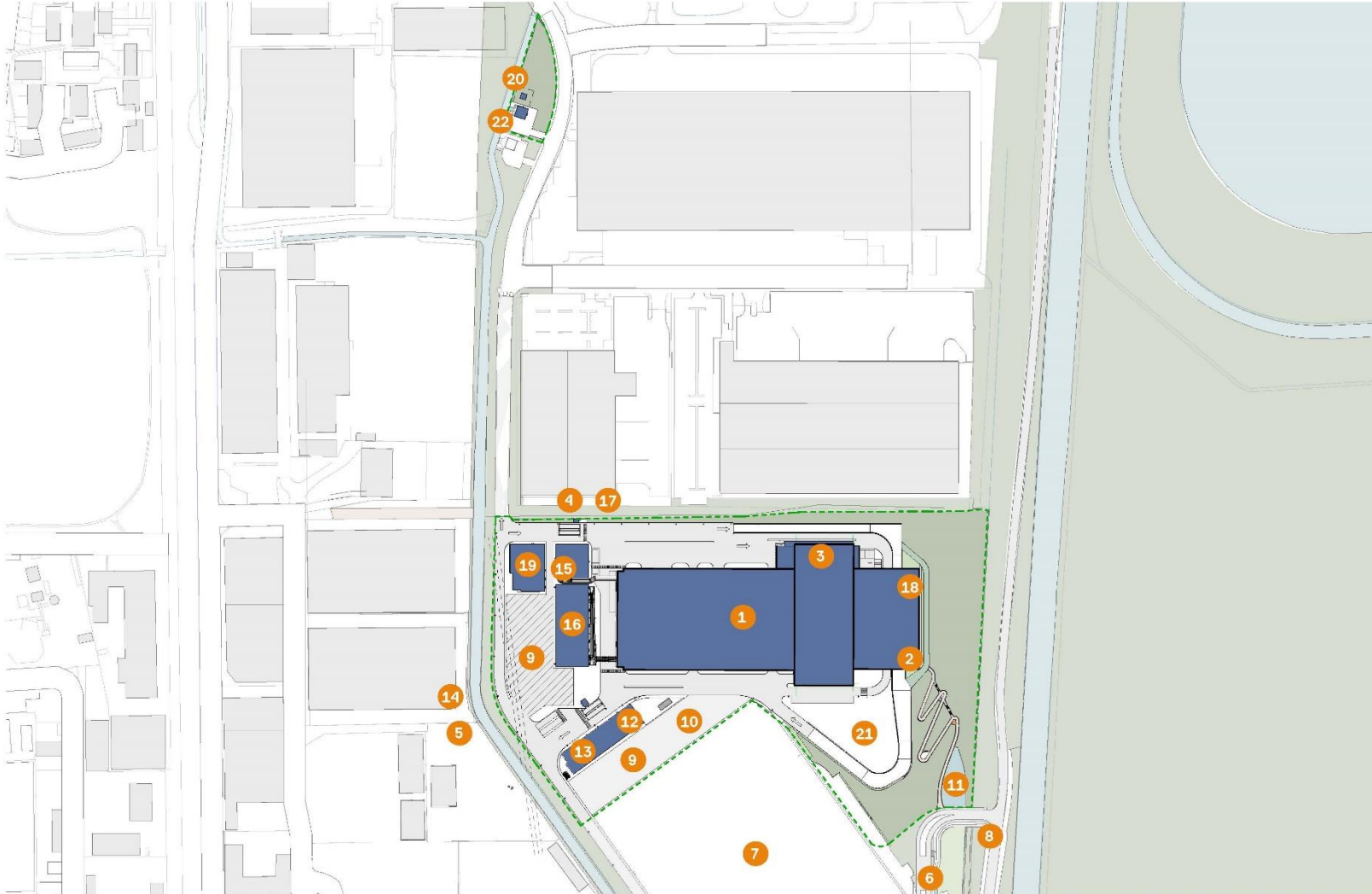
ERF scope of supply



Contractor to deliver a turn-key package for the ERF including all buildings, infrastructure and works:

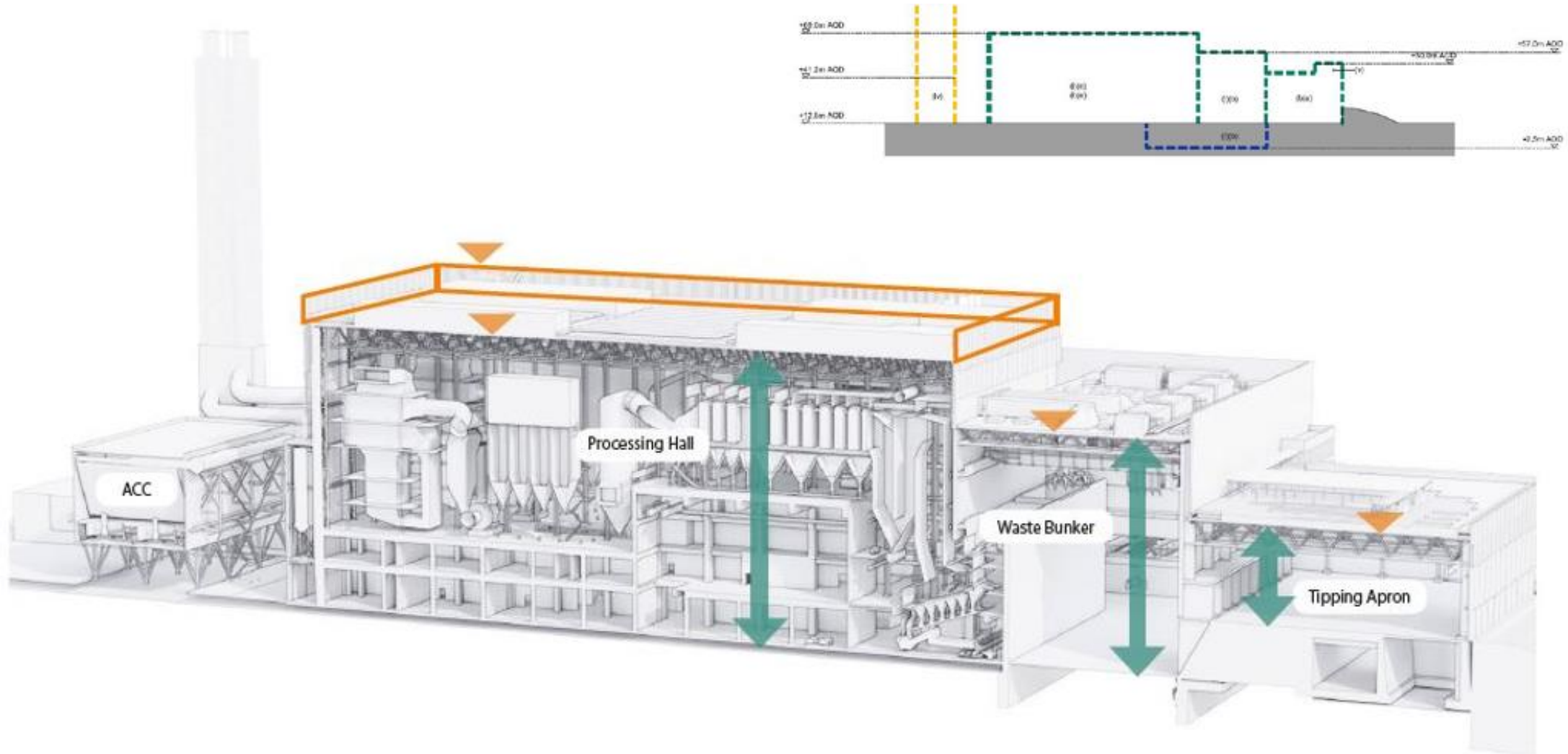
- Design;
- Engineering;
- Procurement
- Construction;
- Commissioning
- Trails & Testing;
- Operator Training; and
- Handover

ERF scope of supply



1. Energy Recovery Facility (ERF)
2. ERF Observation Platform
3. ERF Administration Block
4. ERF In Weighbridge and ancillary office
5. ERF Out Weighbridge and ancillary office
6. RRC Weighbridge and ancillary office
7. Existing EfW site (To be demolished)
8. Satellite Gatehouses
9. Transport Operations and Parking for On-site operational vehicles
10. Fueling area
11. Flood loss compensation area
12. Vehicle Wash
13. Transport Offices and Staff Facilities
14. Toilets for crews delivering to site
15. Stack
16. Cooling Condensers
17. Water Pre-Treatment Plant
18. ERF Fire Water Tank (under tipping hall)
19. Substation and Transformers
20. Gas Apparatus
21. External Stores and Contractors Area
22. Pumping Station

Basis of Design

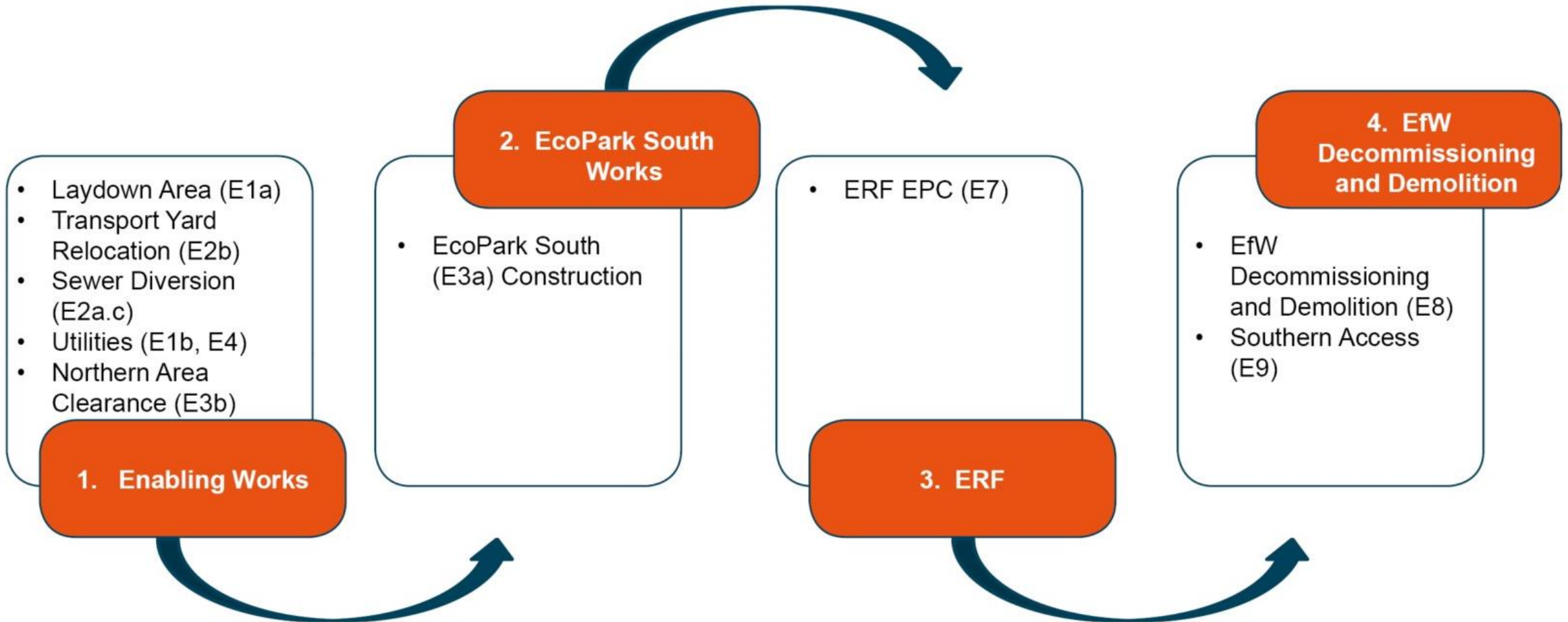


Technology Selection

- **Advanced Moving Grate Technology;** reliable, robust and proven
- **Generating and District Heating Capability;** set at 78MW of generating capacity and potential to supply heat to local businesses
- **Selective Catalytic Reduction;** highest performing equipment available
- **Combined Wet/Dry Flue Gas Cleaning System;** very efficient for the removal of pollutants during peak flows



Key features of the ERF programme





Key features of the ERF programme



Key Features:

- Already delivered several significant development milestones
- Delivery of early stage enabling works and site preparation by others
- Early engineering phase ahead civil works
- Construction duration of 36 months inclusive of cold commissioning, followed by hot commissioning, testing, 90 day trial period and 300h acceptance test
- Defect liability and warranty periods



ECO PARK



Procurement and Contract

Robert Sedgman, Commercial Lead



Working with the NLHPP



- Our objective is to achieve the best value for the seven London Boroughs we serve
- Our culture will be collaborative
- As a client, we aim to:
 - Be intelligent, listen and understand the position of the contractor
 - Be progressive, and willing to innovate to achieve the best outcomes
- Approach to risk
 - Risk sits with the party who is in the best position to manage it
 - The price of risk should be transparent



Procurement and contract form



- Developed by NLWA and its advisers
- Collaborative behaviour is a key element of the Authority's procurement and contracting strategy
- The procurement strategy will be a:
 - Engineering, procurement and construction contract (EPC)
 - Single stage tender following an initial SQ competition
 - Competitive Dialogue procedure under the Public Contract Regulations (2015)
 - Single contract (IChemE Red Book form)
 - Market informed procurement method
 - Tender designed to maximise the bidder's opportunity and demonstrate their offering



Key dates



- OJEU Notice Jul 2020
- Contract Award Apr 2022
- Construction Complete May 2025
- Hot Commissioning Complete Oct 2025
- Trial Period Complete Dec 2025
- Take Over Dec 2025
- Final Certificate post DLP Dec 2027



Site Operator: LondonEnergy

Jim Kendall, Operations Director, LondonEnergy

Introduction to LondonEnergy



LondonEnergy
Powering the Circular Economy

Background

- Limited Company with NLWA as sole shareholder. Proud of public ownership.
- Track record of 50-years of EfW operations. Current facility still delivering excellent availability and processing >500,000 tonnes each year.
- Current EfW generates >250,000 MWh of electricity each year – enough to power 80k homes
- Waste reception, recycling and treatment operations centred on the EcoPark, but services provided for NLWA and other local authorities from 9 sites across North London
- 330 directly employed staff – flexible, diverse, skilled.



EcoPark

- Operational site – services to the NLWA must continue during the ERF construction and commissioning period.
- A single shared entrance with waste vehicles, deliveries, LEL vehicles staff and visitor cars – over 150,000 vehicle movements annually.
- Safety is paramount and a core value
- Facility operates 24/7/365 with guaranteed service levels
- Team of experienced operations, maintenance and support staff keen to work collaboratively to ensure the successful delivery of the NLHPP.





Social Value

Esther Howe, Social Value Lead



NLHPP social value strategy



- DCO Obligation for at least 100 apprenticeships in total and 225 skills training opportunities
- Fits with project vision (it's the right thing to do)
- To make the case for the project
- To address social injustice and make society more equitable – Edmonton is one of the most deprived parts of London
- To ensure economic benefits are experienced locally
- To minimise reputational risk
- To ensure the skills and workforce required to deliver the project are in place

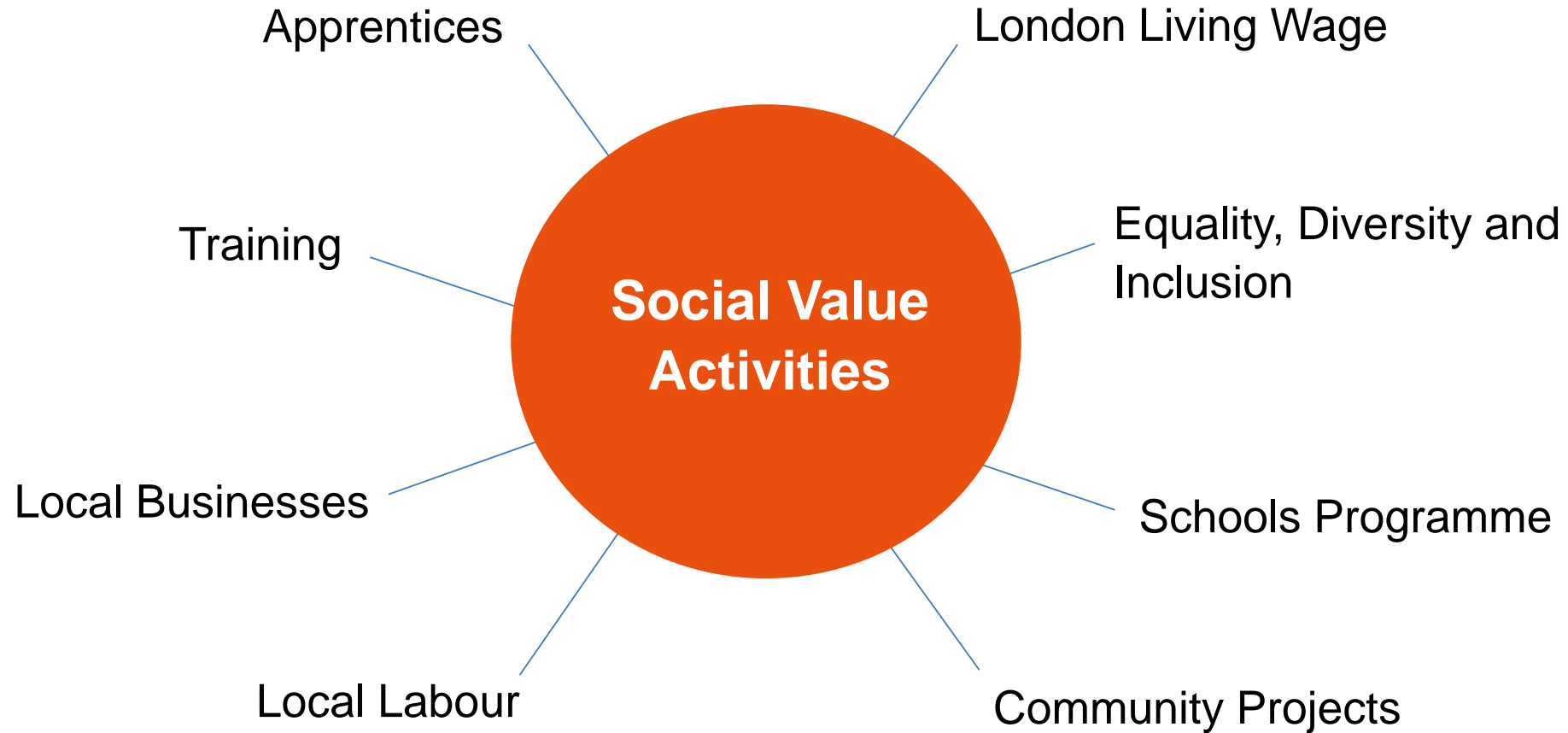


Social value strategic aims



- Attract new talent into the construction industry and upskill the current workforce
- Stimulate interest in STEM subjects and the construction / waste infrastructure related careers via an NLHPP education programme
- NLWA will take an ethical approach and ensure fair and equitable terms and conditions of employment for all workers
- Create opportunities for local and disadvantaged people

Activities and action plan



Apprenticeships

- Resident of Enfield, Haringey or Waltham Forest
- At least 12 consecutive months, resulting in a nationally recognised qualification
- Contract will require provision of approximately 75 apprentices (target to be confirmed)
- NLWA and contractor work together to develop plan to implement, and to track progress

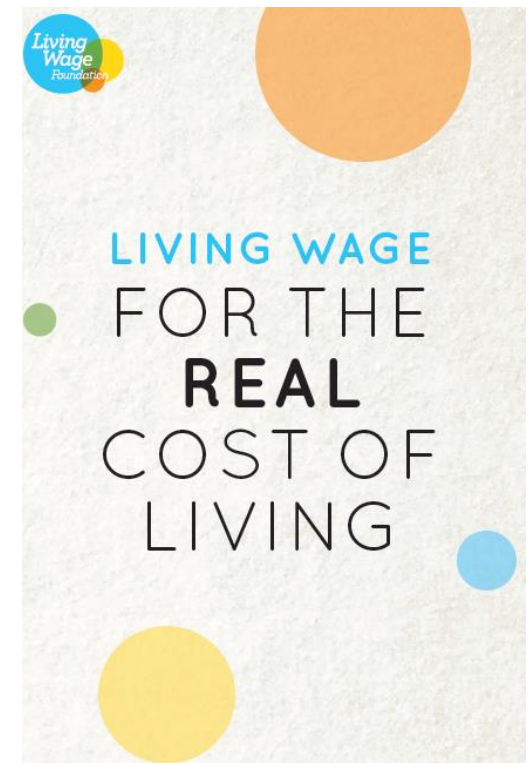


- Resident of Enfield, Haringey or Waltham Forest
- Placements which:
 - Demonstrate potential employment opportunities to a new entrant to the construction industry, or assist an unemployed worker back into the sector
 - Provide a combination of pre-employment advice and classroom based skills, and exposure to practical skills on site
- Contract will require provision of approximately 150 skills training opportunities (target to be confirmed)
- NLWA and contractor work together to develop plan to implement, and to track progress



London Living Wage

- Fair pay rates increase standards of living and promote successful employment relations
- Employees and workers including temporary or agency workers working primarily at the Site for the Contractor or its Subcontractors to be at least paid London Living Wage
- NLWA is pursuing London Living Wage Employer accreditation
- Apprentices paid LLW for duration of project



Local businesses

- Aim: to maximise expenditure within the local area
- DCO Obligation to provide notice and information of appropriate contracts and subcontract opportunities to businesses within the Local Boroughs
- Requirement will be passed on to the Contractor
- Include within procurement planning, and reporting

Local labour

- A common aspiration/ requirement for construction projects
- Contractor to identify steps to promote local employment, e.g. working with local job brokerage partnership, and report accordingly





Equality, Diversity and Inclusion



- Aim: support a diverse workforce and maximise the benefits of the project for under-represented and disadvantaged groups within the local community
- Actions required to promote equality, diversity and inclusion in the execution of the contract (e.g. recruitment via specialized agencies)

Community projects

- Projects which will generate environmental or social benefits for those living and working closest to the NLHPP site, e.g.
 - Street cleanliness
 - Environment: lighting, clear lines of sight
 - Clean up local parks / navigation to the east
 - Tree planting
- Contractor and NLWA to identify and develop community project(s), and to deliver using personnel and resources based on the NLHPP site



Schools programme

- Aim: stimulate interest in STEM subjects and construction / waste infrastructure related careers
- Potential to reach out to and benefit local communities, in particular young people who could feasibly become part of the NLHPP's workforce



Key stage 3 (11-14 year olds)



Sessions to cover:

Aims and scope of NLHPP
Skills and roles of the project workforce
Will need to tie into curriculum



Location:

On / close to the NLHPP site if there is an appropriate facility
Or within school



Contractor staff, NLWA staff; support from LB Enfield staff / STEM ambassadors



Concluding remarks

Martin Capstick, NLWA Managing Director



Concluding remarks



Questions?

