

PROGRAMME COMMITTEE
PROJECT BRIEFING

2

Resource Recovery Facility Transition into Operation

16 March 2023



North London Heat and Power Project

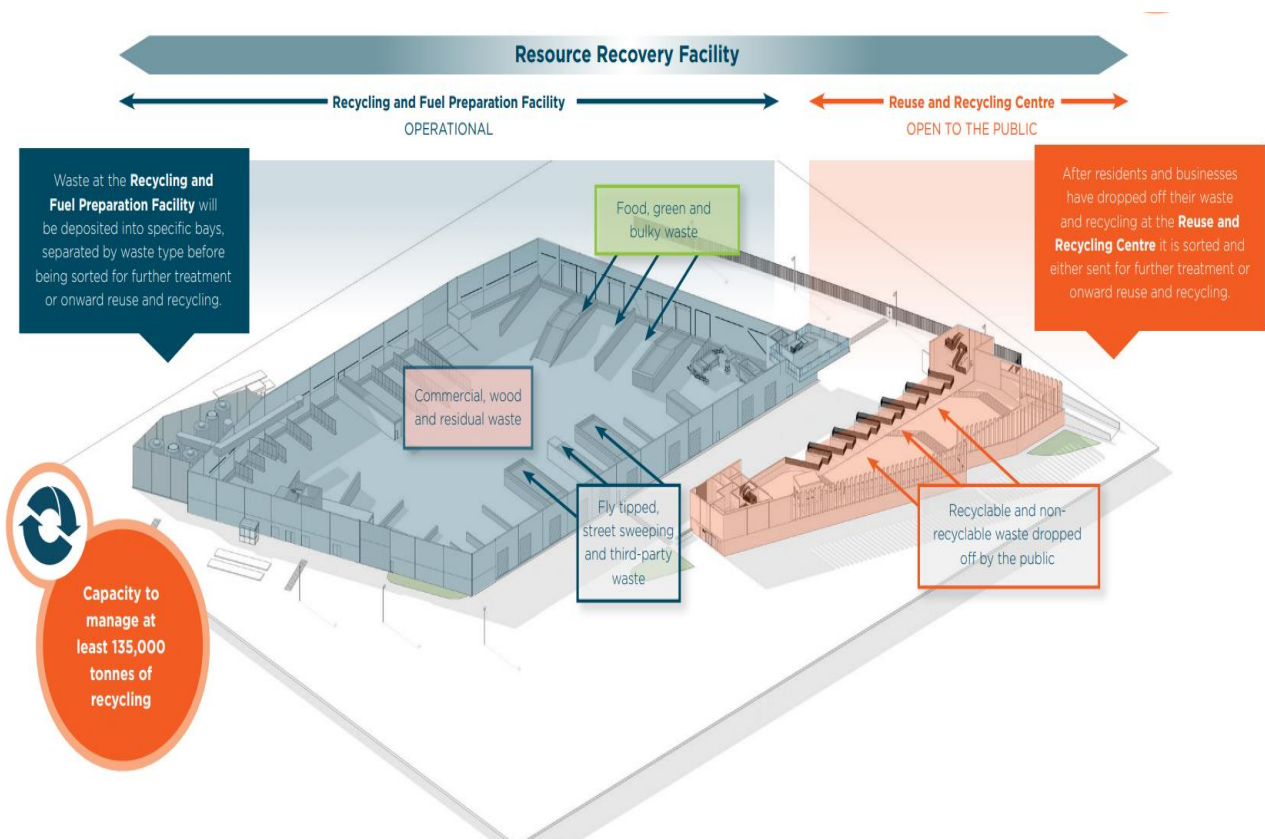
Document Details	
Document Number	NP-NLW-XXXX-XXX-RP-ZZ-090169

	Owner's Organisational Approval	Check & Review	Approval for Use
Name	Michael Clarke	Nicholas MacDonald	Martin Capstick
Role	Head of Strategy and Services	Assistant Project Manager	Managing Director
Signature			
Date	06/03/2023	06/03/2023	06/03/2023

Revision Record		
Revision No.	Date	Description of Revision
P01	08/03/2023	Programme Committee Project Briefing

1. BACKGROUND

- 1.1. The first major new operational facility from the North London Heat and Power project is the Resource Recovery Facility (RRF). This is a large waste management building with a capacity to manage 374,000 tonnes of waste annually. The facility is on track to start operations in June 2023, following completion of construction and handover from Taylor Woodrow. The facility will be operated by LondonEnergy Ltd (LEL) as part of the waste management contract with the Authority.

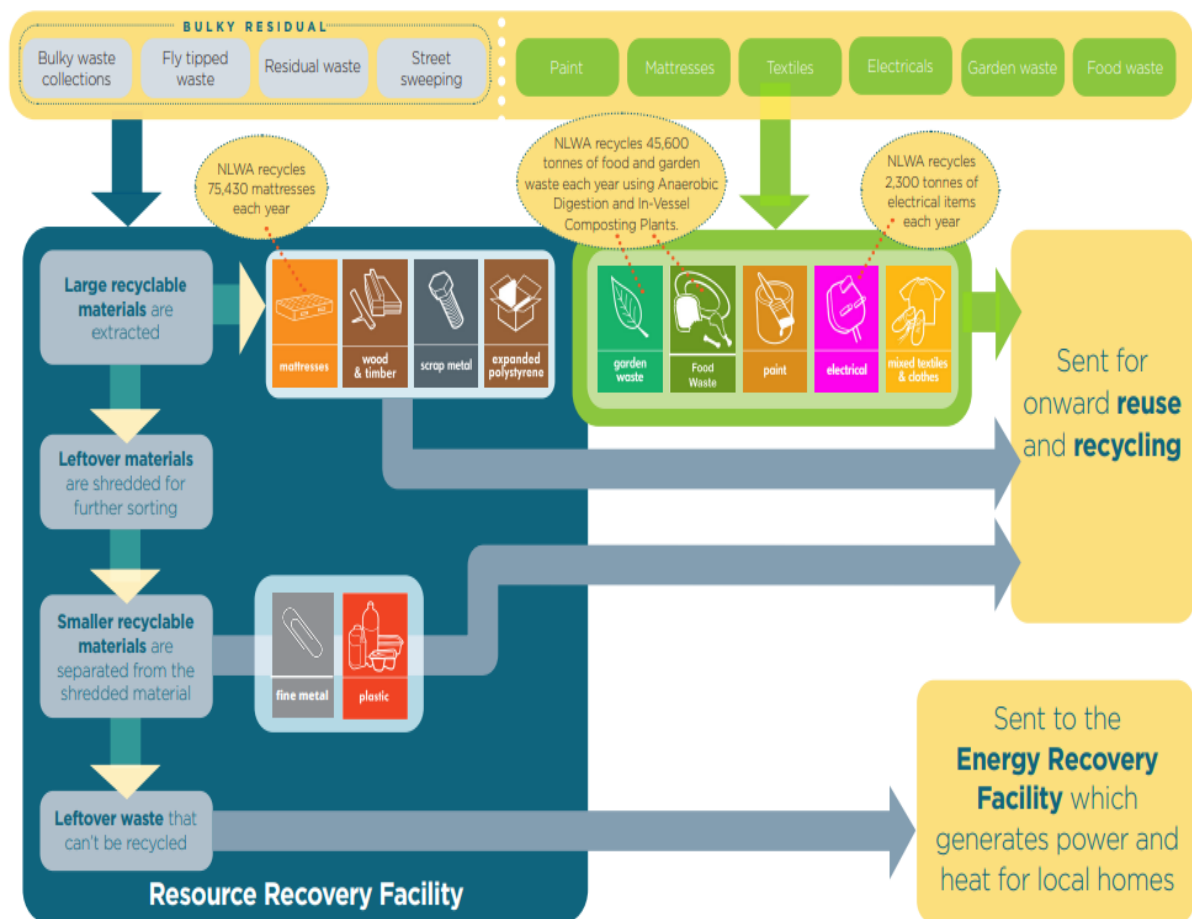


10

- 1.2. The RRF is made up of an enclosed reception hall with sorting, material preparation and storage areas with odour and dust management systems which provide capacity for the following functions.
- 1.2.1. Transfer Station (TS) - for bulking of recycling materials for onward transport to processors.
 - 1.2.2. Sorting Function (SF) - to extract recyclables from residual waste.
 - 1.2.3. Fuel Preparation (FP) - to prepare bulky waste for energy recovery.
 - 1.2.4. Gully Waste Dewatering – to dewater gully waste to provide recyclable/treatable solid material with Wastewater Treatment

2. HOW THE RRF HELPS DELIVER BETTER SERVICES AND BETTER ENVIRONMENTAL OUTCOMES

- 2.1. The RRF will receive waste from LEL vehicles bringing material from reuse and recycling centres or transfer stations in Islington and Wembley. It will also receive waste from borough vehicles carrying material such as bulky waste, food waste and green waste.
- 2.2. As a result of its size and scale, the RRF provides capacity and flexibility to manage changes in volumes and composition of waste loads in future. For example the facility is estimated to have capacity to receive 84,000 tonnes of organic waste per year (garden waste and food waste). At present the capture rate of these material is around 42,000 tonnes per year. Therefore the new facility will increase the capacity to deal with increased recycling tonnages. The general operation is set out in the graphic below.



- 2.3. The new facility boasts a Supervisory Control and Data Acquisition system (SCADA) that supports automated management of Environmental, Safety and Operational Management Systems that contribute to achieving high standards in Environmental Quality and Safety.

- 2.4. The SCADA is an integral part of the Air and Odour control system that changes and filters air inside the facility four times every hour, this is vital in removing small particulate matter including Persistent Organic Pollutants (POP's) found in soft furnishings. This allows soft furnishings to be treated; this treatment would not have been permitted within previous bulking facilities on the EcoPark. The Air and Odour control system creates negative air pressure within the facility that ensure Odour from organic waste streams cannot escape even when doors are open for tipping. To minimise environmental impacts the facility will operate with all electric Fuel Preparation equipment, reducing our reliance on fossil fuel.
- 2.5. The RRF has been designed with safety in mind, a control and observation room (crow's nest) overlooks and controls the internal operation including material bays, fuel preparation and the recycling extraction process, with CCTV coverage supporting control of the external tipping bays.
- 2.6. The vast majority of Borough vehicles will tip into the building from an external tipping apron, through automated rapid opening/closing tipping doors. Segregating borough vehicles from operational plant removes many of the dangers associated with operatives and vehicles working in close proximity to LEL's yellow plant (large excavation and materials handling machinery). This delivers a safe environment for borough collection team operatives.

3. ASSET OWNERSHIP

- 3.1. Existing infrastructure on the EcoPark is owned and operated by LEL, new infrastructure delivered by the North London Heat and Power Project (NLHPP) will continue to be operated by LEL however crucially the Authority will own the assets.
- 3.2. This change requires a new approach to the relationship between the Authority and LEL as well as the roles and responsibilities of each party. At the December 2022 Authority meeting, Members agreed to enter into a new EcoPark South Service Contract with LEL that sets out the financial, service, maintenance and asset management arrangements. The contract is expected to be signed in April 2023 and forms the cornerstone of the future arrangements.

4. TRANSITION WORKSTREAMS

- 4.1. The transition into new Authority owned facilities requires each organisation to prepare for new ways of working. This change activity has been themed into workstreams with officers from LEL, NLHPP and the Authority represented and where appropriate supported by external advisors. The product from each workstream with emerging issues is reported into a Transition Board consisting of the Managing Directors of the Authority and LEL, the NLHPP Delivery Director and senior officers from both organisations. The board is also supported by an ARUP program manager.

4.2. The themed workstreams include:

- 4.2.1. **Construction and Design Group.** This group is involved in ensuring the final product meets the needs of the service and lessons learnt from previous facilities including the temporary bulky waste facility are applied to the RRF.
- 4.2.2. The group has introduced innovative vehicle kerbs that guide borough vehicles into the correct place to tip through the doors without risk of causing damage to the doors or to borough vehicles. Additionally, food waste bays have been redesigned to remove sloped flooring that had proved difficult to operate on in the TBWF.
- 4.2.3. **Asset Management Group.** This group is tasked with creating an environment where the Asset Management requirements set out in the contract are delivered. The group has already made a series of significant recommendations that have been accepted by the Transition Board, these include identification of a single asset management tagging system (KSS) and the introduction of Maximo industry recognised Asset Management software.
- 4.2.4. The group is currently developing a Strategic Asset Management Plan for the Resource Recovery Facility.
- 4.2.5. **Operational Readiness.** This workstream is focused on ensuring LEL have the appropriate capacity and capability to operate the new facility and lessons learnt from operating in the Temporary Bulk Waste Facility (TBWF) are incorporated into the future operation.

Lessons Learnt

- 4.3. The TBWF required new ways of working for Borough drivers and LEL operational teams. The TBWF tipping operation is very similar to the operation intend at the new RRF facility and as such provides great opportunities to fine tune that operation through modification to the facility or the LEL operation.
- 4.4. Door widths for the tipping bays require borough drivers to be extremely accurate when reversing on to their tipping point. On occasion this ask was too great and the TBWF doors were struck several times causing significant damage to the facilities doors and Borough vehicles. Installing physical guides in the form of kerbs at the RRF ensure borough vehicles are in exactly the right place to tip. Borough teams from LB Barnet and Waltham Forest provide vehicles for a series of field test that proved the solution.
- 4.5. Food waste bay design included a sloping floor that ensured leachate from food waste, did not escape, however on occasion this created a surface that was

hazardous to drivers and even to yellow plant. The food bays have been redesigned and now incorporate a split level design that removes the risk of slippage.

- 4.6. The two examples above demonstrate the value of the TBWF in applying lessons learnt had and how they are contributing to mitigating and modifying assets, process and procedures that could have otherwise, extend the User Acceptance Testing (UAT) process, Trail operations and potentially caused delays in a business as usual state.

Recruitment

- 4.7. The majority of recruitment has been completed in anticipation of the forthcoming occupation of the RRF. This includes all critical positions. A new head of RRF operations has been appointed and is currently heavily involved in preparations for operation with the existing management team that are transferring from the previous EcoPark based facility.
- 4.8. Existing LEL colleagues have been involved with union representatives in a very positive consultation exercise with the aim of minimising the impact of the transition. Unfortunately one member of the team is categorised as being at risk from an employment perspective and work is ongoing to explore alternatives.
- 4.9. Staff numbers are expected to rise over the next year from 46 across all shift to 59 full time equivalents. The increases are required to operate the new reuse and recycling centre when that is ready to open and to support a picking facility which is planned to extract recyclable material. The increase in number of green jobs is to deliver improved environmental outcomes with waste at the EcoPark.

Training

- 4.10. During the off-siting of waste phase of the transition, LondonEnergy are making best use of employees' time in preparing for the user acceptance testing and trial operations. Colleagues employed in the TBWF form part of a rota that sees them supporting additional tonnages at Hornsey Street and Wembley as well as taking an active part in training and transition activity. A full training programme has been developed for individual staff at all levels. Key to successful and safe operation is Traffic Marshall training. A bespoke training package is being developed and this will be provided initially to the staff based at the RRF and then rolled out to all LEL managed sites.
- 4.11. The training consists of mandatory training for all staff, as well as any additional training identified for specific roles and cross training into other positions within the operation to support resilience planning.
- 4.12. The maintenance team are reviewing Operating and Maintenance Manuals, as and when they become available in conjunction with the Authority's Asset

Management lead. The review supports the fine tuning of training for existing engineers/operatives and any potential skills gap that will be covered by 3rd party expertise. In addition, this process ensures the correct spares are held, planned maintenance impacts are understood and incorporated into operational plans and Asset Management information will be obtained and shared in a way that meets the service requirements.

Equipment

- 4.13. As mentioned in section 2.4 above electric plant required for Fuel Preparation function has been procured and will be delivered to site shortly. Lease arrangements have been entered into for yellow plant providing greater freedom to change plant at short notice to meet emerging operational need.

Traffic and Safety Planning

- 4.14. Significant work has been completed with regard to traffic modelling and a traffic management plan has been developed for the site. Traffic arrangements will be shared with all operational safety information to Borough teams in advance of the trial operation phase.
- 4.15. The process for changing Traffic and Safety management arrangements is well established between LEL, NLWA and Borough officers with several changes taking place on the Eco park in the last 18 months, NLWA/LEL will produce specific site guides to be handed out to all staff, presentations slides and other materials will be produced to support managers within the boroughs to brief their staff. Borough teams will confirm a register of all trained staff.
- 4.16. As we approach trial Operations, borough colleagues including operational and health and safety officers will tour the new facility and receive a detailed briefing on the new operation by NLWA and LEL officers.

User Acceptance Testing and Joint Trials

As part of preparing for user acceptance testing and trial ops, a specific LEL team has been identified, supported by advisers who have experience of transition to new facilities. To support field testing LEL have leased a refuse vehicle and Borough teams will be invited to take an active role in acceptance and trial operations.

Extracting recycling

- 4.17. The RRF will occupy significantly more space than its predecessor facility at the EcoPark. Existing activities to separate recycling from residual waste – for example pulling out mattresses, wood and larger metal objects – will continue. In addition, the intention is to use the additional space for equipment which will help to increase recycling volumes. A working group has been established to develop an

options appraisal for new equipment to be installed. This assessment will take account of changing legislation including the plan for a national deposit return scheme which will reduce the volume of cans and plastic bottles in household waste, as well as regulatory changes that include the treatment of soft furnished seating.

- 4.18. An options appraisal will be produced in summer 2023 for consultation with Members Recycling Working Group.

5. TRANSITION GOVERNANCE

- 5.1. The first assets are approximately 3 months away from practical completion and at this stage the transition into new facilities remains on track. The Transition Board will monitor progress made by the various working groups, and officers will update the Committee as the facility goes into service.

6. EQUALITIES IMPLICATIONS

- 6.1. There are no equality implications associated with this report.

7. COMMENTS OF THE LEGAL ADVISER

- 7.1. Comments of the legal adviser have been incorporated into this report.

8. COMMENTS OF THE FINANCIAL ADVISER

- 8.1. The financial adviser comments have been incorporated into this report.

List of documents used:

None

Contact officer:

Michael Clarke
Head of Strategy and Services
Unit 1b Berol House
25 Ashley Road
London N17 9LJ
Michael.Clarke@nlwa.gov.uk