

**NORTH LONDON WASTE AUTHORITY**

**REPORT TITLE:** OUTLINE PROGRAMME DEVELOPMENT PLAN 2021

**REPORT OF:** PROGRAMME DIRECTOR

**FOR SUBMISSION TO:** PROGRAMME COMMITTEE

**DATE:** 14 JANUARY 2021

**SUMMARY OF REPORT:**

The report provides information on priorities for successful delivery of the North London Heat and Power Project and the associated programme management response to the changing nature and demands of the project in 2021 and beyond.

**RECOMMENDATIONS:**

The Committee is recommended to:

- A. note the key priorities planned for the North London Heat and Power Project in 2021 as set out in section 1;
- B. note the risks and challenges that these priorities are intended to address; and
- C. comment on any areas of the Project where Members would like more information or further updates.



**SIGNED:** ..... Programme Director

**DATE:** 4 JANUARY 2021

## 1. INTRODUCTION

- 1.1. The North London Heat and Power Project (NLHPP) is the programme of works authorised by Development Consent Order (DCO) 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, and EcoPark House (EPH), a visitor centre which will be used to provide community / 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. As the North London Heat and Power Project (NLHPP) successfully completes significant sections of its Site Preparation Phase at the end of 2020, the Project looks forward to the different challenges of subsequent phases of work. The purpose of this report is to provide Members with information on priorities for successful delivery and how officers intend to manage the programme, in response to the demands of 2021 and beyond. The nature of the work will see significant change from that executed to date, requiring a refresh of skills, structure, and delivery processes to meet the new challenges.
- 1.3. Lessons learned from other major programmes point to the need to modify management arrangements, including the skills and capabilities an organisation may need, as a programme progresses. In response to the change in the nature of work being undertaken in the forthcoming stages of the programme and the associated key risks, the project team will be prioritising the following activities to ensure the required delivery performance and that it remains on track to achieve its objectives.
  - 1.3.1. Aligning the programme organisation and management with changes to the programme.
    - 1.3.1.1. Benchmark the programme leadership, organisational and process maturity using the industry standard Portfolio, Programme and Project Management Maturity Model (P3M3) framework,
    - 1.3.1.2. Increase the focus on collaboration with and integration of new Project partners and other contributing activities.
  - 1.3.2. Development of Health, Safety, Wellbeing.
    - 1.3.2.1. Implement an enhanced COVID-19 response during first half of 2021,

- 1.3.2.2. Implement a client-led mental health programme focused on the construction workforce.
  - 1.3.3. Plan for asset management and operations.
    - 1.3.3.1. Address the transition of Temporary Bulky Waste Facility/Fuel Preparation Plant and the Resource Recovery Facility from delivery, through commissioning and handover, into day-to-day operations,
    - 1.3.3.2. Develop the Authority's asset ownership policy and transition programme with a focus on readiness for Energy Recovery Facility (ERF) contract award.
  - 1.3.4. Deliver the ERF procurement.
    - 1.3.4.1. Deliver the procurement programme, co-ordinating extensive cross-functional inputs,
    - 1.3.4.2. Address with tenderers any consequences for ERF delivery as a result of the Trade and Cooperation Agreement implemented as the United Kingdom left the European Union.
  - 1.3.5. Align programme controls with increased construction activity.
    - 1.3.5.1. Develop performance monitoring, control and reporting to include implementation of Earned Value Analysis, an industry standard method that permits the project to be measured by progress achieved.
  - 1.3.6. Align Project delivery with increased construction activity at the EcoPark.
    - 1.3.6.1. Implement effective management and co-ordination of increased construction traffic at the EcoPark,
    - 1.3.6.2. Increase the focus on impact on the Project of external programmes, e.g. LondonEnergy Ltd (LEL) operations/maintenance, Energetik, UKPN, the north London constituent boroughs, nearby construction projects
- 1.4. Section 2 of the report summarises key aspects of the new challenges that the programme management must be alive to and Section 3 describes some of the key risks that must be addressed by the Project in 2021. Section 4 provides further information on the how the programme management will respond to these changing circumstances and delivery risks.

## **2. KEY PROGRAMME CHANGES IN 2021**

- 2.1. An obvious change to the Project in 2021, that the programme management working arrangements must adapt to, is a significantly increased level of construction activity on the EcoPark. This includes commencement of the EcoPark South works while other site preparation contracts close out. Also, modification to the northern part of the EcoPark starts with demolition of existing facilities and construction of a Temporary Bulky waste and Fuel Preparation Plant.
- 2.2. The increased construction activity will require a programme management response to the following matters:
  - 2.2.1. An increased rate of progress across a broader front of design and construction activities, coupled with an increased rate of Project expenditure, to be closely monitored and controlled by the management team.
  - 2.2.2. Growth in the project management activities and resources relating to construction oversight and supervision of build quality; health and safety; and contract/commercial administration.
  - 2.2.3. An increased potential for interfaces and dependencies between concurrent construction contracts to impact the overall programme. As construction activity increases, the touchpoints increase with waste management operations; operation and maintenance of existing facilities; and other programmes of work outside the Project.
  - 2.2.4. Some increased traffic volumes at the EcoPark and surrounding roads resulting from adding increased construction traffic on existing traffic patterns.
- 2.3. Associated with the increased construction activity is the heightened challenge to ensure the health and safety of the larger workforce, in line with the Project's vision to achieve zero harm to the workforce and the local community. The Project has achieved a high safety performance so far, but 2021 will see a step-change in the complexity and magnitude of site work and the need to manage effectively the associated hazards. The increased workload will continue to be carried out, certainly during the first half of the year, in the shadow of COVID-19 safe working arrangements, requiring continued vigilance to prevent transmission of the virus in the workplace.
- 2.4. With the increased construction activity comes the increased importance of promoting positive mental health across the larger Project workforce. Poor mental health is a serious issue in the construction industry with two construction workers take their own life every working day, according to the Lighthouse Club construction industry charity. The Project team, together with the contractors, is

developing a programme where mental health issues can be addressed and positive measures are taken to support the workforce.

- 2.5. A highlight of 2021, and a significant feature of the Project team's delivery, will be the management of the Competitive Dialogue process for the selection of the contractor for the engineering, procurement, construction, and commissioning of the ERF. This is a major undertaking by the team and will involve many functions, disciplines, and project partner companies working in close collaboration to deliver a challenging programme of tender technical and commercial evaluation and dialogue. The procurement exercise will continue to be carried out under the restrictions imposed by COVID-19-safe working practices, and the uncertainty of how companies will need to adapt to trading and working arrangements as a result of Brexit.
- 2.6. Another change to the programme management approach in 2021, reflecting the progress of the Project, is the need to push forward planning for how the assets being constructed will be brought into use. It is important to plan early for moving from project delivery into operations to ensure that sufficient time is allocated for testing and commissioning; timely transition of the Operator to be ready to take over the running of the facilities; service levels and the required capabilities for steady state operation are identified and secured; and Project contractors are properly informed about the requirements for handover and their role in the management of the process.
- 2.7. 2021 will see an increased level of activity relating to this "end-game". New build temporary facilities in the northern area will be brought into operation; the EcoPark South works will be moving rapidly toward testing and commissioning early in 2022; and the programme will be addressing testing, commissioning and handover processes with tenderers for the ERF. While LondonEnergy Ltd will be the operator and will lead on operational preparations, there is an important role for the Authority which will be the owner of the assets being constructed.

### **3. KEY PROGRAMME RISKS IN 2021**

- 3.1. Many of the required changes to evolve working practices above feature in the programme risk register, emphasising their potential to impede progress of the Project if not managed effectively.
- 3.2. In the area of construction delivery, key programme-level risks managed by the Project team are:
  - 3.2.1. Extensive unforeseen and unknown buried services disrupting groundworks progress.
  - 3.2.2. A risk if dependencies between contracts are not properly co-ordinated - impacting overall progress, delaying sub-projects on the critical path.

- 3.2.3. A risk if activities are not successfully managed and coordinated with adjacent construction projects and 3rd parties - impacting progress on the Project.
- 3.2.4. A risk if construction traffic movements are not planned and co-ordinated, which could affect LEL waste management operations on the EcoPark.
- 3.3. Related to avoiding health, safety and wellbeing issues impacting the programme, key risks are:
  - 3.3.1. A severe health and safety incident resulting in delays to work on site, for example through site closure or stand-down, or through a prohibition notice by the Health and Safety Executive.
  - 3.3.2. Continued COVID-19 transmission in society impacting construction progress through continued or increased restriction on working practices.
- 3.4. Of direct relevance to the ERF procurement are risks related to:
  - 3.4.1. The supply chain failing to respond positively or as planned to the ERF tender process,
  - 3.4.2. Post-Brexit arrangements adversely impacting the future availability of resources, direct costs, contractor insolvency, or availability of funding.
- 3.5. The Project team have recognised the imperative to manage these risks effectively in 2021 and beyond in determining some of the priorities for attention, especially changes in management arrangements.

#### **4. KEY PROGRAMME MANAGEMENT CHANGES**

##### **Aligning management arrangements with changes to the programme**

- 4.1. The management organisation has successfully delivered a programme of site preparation contracts as well as progressing, to plan, the major procurements associated with EcoPark South and the ERF. The organisation, involving many advisor and “partner” organisations has integrated well. Significant emphasis has been put on the necessity for effective teamwork, communication, and collaboration across this supply chain, recognising the risk to the Project of failing to achieve alignment between the parties behind a vision and shared objectives. This emphasis will continue into 2021 and beyond with new partners such as the EcoPark South contractor, Taylor Woodrow, and the eventual ERF contractor joining the Project.
- 4.2. To ensure the management arrangements are “match-fit” for demands of the future, they will be benchmarked against best practice, to help officers identify priorities for action related to the future skills and capabilities needed. The team is

employing the Portfolio, Programme and Project Management Maturity Model “P3M3” framework originated in the Office of Government Commerce. It allows the organisation to see a snapshot of its current strengths and weaknesses and map its direction for continuous improvement.

- 4.3. The model looks at maturity of the organisation’s capability in seven key performance perspectives, crucial to the success of a major programme and the failure of which are common weaknesses in large organisations.
  - 4.3.1. Organisational governance,
  - 4.3.2. Management control,
  - 4.3.3. Benefits management (the transition of assets into operation),
  - 4.3.4. Risk management,
  - 4.3.5. Stakeholder management,
  - 4.3.6. Finance management,
  - 4.3.7. Resource management.
- 4.4. The Project Team will report back to Members on lessons learned from the benchmarking exercise and the development actions to be taken.

#### **Development of Health, Safety, Wellbeing**

- 4.5. With increased construction activity on the EcoPark in 2021 and greater numbers in the construction workforce, the challenge for the Project to achieve its Zero Harm vision increases. The previous year has seen significant progress in the implementation of the client-led safety programme for the Project in line with the “Safety First” commitment.
- 4.6. The Project team will continue to work with contractors to set exemplary standards for health, safety, and wellbeing on site. The Project will focus heavily on employee engagement to promote safety awareness across the workforce. An example of this is the deployment of on-site technology to enable the reporting by the workforce of safety observations. There is a well-proven correlation between an increased number of safety observations and fewer incidents, driven primarily by the greater culture of safety awareness that an observation system promotes.
- 4.7. The construction industry in the UK has seen higher than average levels of COVID-19 transmission in the workplace. The Project has bucked this trend through its decisive action in Spring in temporarily pausing site work to ensure its working procedures and site establishments were COVID-safe and fully compliant with Construction Leadership Council guidelines. It has benefitted from the fact that as

groundworks have been predominant, this has enabled social distancing to be more easily maintained. Since March 2020, the Project team, LEL and the contractors have consulted regularly through the Project COVID-19 Taskforce to ensure that best practice and lessons learned are maintained across all the sites.

- 4.8. In view of there being no certainty around a return to normal working conditions and the potential for worsening of the transmission in society, the Project will continue to focus attention on careful compliance with industry guidance and will engage fully across the programme through the COVID-19 Taskforce.
- 4.9. The Project is also examining how technology can be deployed for the protection of the workforce. The Project is undertaking a trial of a wristband system providing a responsive and localised proximity warning, that provides “real-time” information that will mitigate against contact outside of working “bubbles”.
- 4.10. The Project team will take a leading role in a Mental Health initiative, recognising it as an integrated part of the Project’s Wellbeing 4 Life strategy. The approach will always be towards alignment with our delivery partners and achieving operational excellence as a ‘total enterprise’.
- 4.11. The Project has already taken tangible steps to ensure that the workforce is provided with a high standard of site accommodation at the Laydown Area, noting the importance of welfare facilities to the wellbeing of the construction workforce. The Project team are working with Taylor Woodrow who will occupy the facilities in 2021, to establish a high standard of welfare provision for a workforce that frequently, given the transient nature of the industry together with unsocial working hours, miss out on opportunities to have essential needs met, such as medical care and basic nutrition.
- 4.12. NLHPP is currently reviewing our delivery partners’ mental health initiatives to develop a Project-wide collaborative programme. The Project team are currently selecting and screening proposed initiatives against the criteria of being:
  - 4.12.1. Evidence based,
  - 4.12.2. Context relevant,
  - 4.12.3. Facilitating integration with our delivery partners,
  - 4.12.4. Presenting a narrative which aligns with the Vision for the project,
  - 4.12.5. Enabling the monitoring of a journey towards maturity.
- 4.13. There will be an expectation for Contractors to provide, as examples:
  - 4.13.1. Site based mental health first aiders, with numbers determined by workforce statistics,



4.13.2. Management staff having undertaken mental health awareness training,

4.13.3. Workforce engagement strategies and promotions.

4.14. The initiative is to address a problem that is a serious issue in the construction industry. Male site workers in construction are three times more likely to commit suicide than the average UK male. The Chartered Institute of Building recently reported that 26% of construction industry professionals thought about taking their own lives in 2019. 70% of workers surveyed experienced depression and 87% experienced anxiety over the past year. Yet 56% of site workers are employed by organisations with no policies on mental health in the workplace

4.15. The construction industry lifestyle is undoubtedly both challenging and stressful. Long and demanding working hours, working away from home and family, on site for weeks at a time and the lack of job security, are just some of the factors contributing to poor mental health. Male workers often feel unable to discuss their mental well-being due to expectations of how they should behave, resulting in many suffering in silence. It is therefore important in a publicly funded programme that action is taken to support the workforce on these issues.

#### **Asset management and operations**

4.16. There is frequent evidence of major programmes failing to understand the complexity of bringing built assets into use and leaving it too late to plan the transition process into operation. Officers in the Strategy and Services team are managing a change programme that will reflect the eventual position of the Authority as an Asset Owner, with ultimate responsibility for determining a policy for ownership and management.

4.17. Officers need to make sure the facilities can be operated successfully by the required dates, so the Strategy and Services team will become increasingly active in the Project, working in close alignment with LEL over development of their future operating plans, to enable a smooth transition to bring the assets into use on time.

4.18. Next year will involve significant activity in preparation for bringing temporary waste management facilities into use on the EcoPark so that waste management services are not disrupted by the build programme. These facilities will need to be tested and commissioned before moving operations from the old to the new facilities.

4.19. Planning of the testing and commissioning for the first facilities as well as subsequent major built assets, requires careful planning. There is frequently a pressure on projects to squeeze the testing and commissioning programme to compensate for delays in the construction. To avoid unrealistic assumptions being made in this area, the Project has appointed a commissioning lead and is

establishing a Commissioning Panel that will provide oversight and assurance of the contractors' programme.

- 4.20. The Project will also undertake planning for operational readiness through;
  - 4.20.1. Oversight of LEL's transition plan to achieve readiness to operate the assets,
  - 4.20.2. The specification of LEL personnel in contractor testing and commissioning activities,
  - 4.20.3. The implementation of Authority contractual obligations in the testing and commissioning process,
  - 4.20.4. The alignment of the Building Information Modelling tool to provide a fully co-ordinated platform for Asset Management Data to be provided by contractors.

#### **Energy Recovery Facility (ERF) Procurement**

- 4.21. Detailed planning of the Competitive Dialogue process commenced in readiness for the tender process involving the tenderers that successfully pre-qualified earlier in 2020. This formally commenced with the issue of the Invitation to Submit Detailed Solution (ISDS) in November with the initial submission in mid-April 2021 and the overall process converging on a Member decision in December 2021. The programme has been, and continues to be, challenging considering COVID-19 which has required remote working within the procurement team. The process has been successful to date and has involved innovative harnessing of digital tools; holding virtual Market Information Days; and even providing tenderers with a virtual "site visit".
- 4.22. The readiness for the team to issue the tender was assessed, considering the procurement team structure; including the roles, responsibilities and terms of reference for sub-teams; and the development of processes and systems for Competitive Dialogue. A weekly plan through to Contract Award has been developed to identify early any resource constraints or other risks, providing time to develop effective mitigations.
- 4.23. The team are currently finalising the systems approach to management of the procurement process. This will involve the use of Asite software for Competitive Dialogue in the Project's Common Data Environment to handle the sharing of the large volume of documentation to be processed; the use of "InTend" – a market-leading procurement tool for tender evaluation and commercial management.

- 4.24. With no certain date for resumption of normal working practices due to COVID-19, the team are developing a resilient plan for the management of such a large and complex procurement event. The key aspects of the planning include;
- 4.24.1. An agreed matrix of responsibilities and accountabilities within the process, including those who will be consulted or informed on emerging matters. This will enable the commitment of parties involved; the staffing of the core team and a resilience plan in light of change/disruption to the team; and highlight resource constraints or clashes across workstreams. The project is appointing a Document Controller and Information Manager dedicated to the ERF procurement programme.
  - 4.24.2. Scheduling activities on a weekly basis for the crucial Competitive Dialogue period with the tenderers, taking place from June 2021 to August, subsequent to the review of the tenderers' initial submissions.
  - 4.24.3. The team will implement a series of Gate Reviews included at key stages through Competitive Dialogue, ensuring that the process has been completed at interim stages and is ready to proceed to the next phase of the tender. The Gate Review process will culminate in a final Gate Review by the consultants, Fichtner, ahead of Programme Director approval of the recommendation to Members in December 2021.
  - 4.24.4. The team are also developing a programme of interim progress reports and communications to Members and senior borough officers, including regular updates at Authority, Programme Committee, and Partnership Board meetings.
- 4.25. As part of the dialogue, the procurement team will be reviewing with tenderers their views of any consequences as a result of new arrangements under the Trade and Cooperation Agreement between the United Kingdom and the European Union, e.g. the potential for delay in supplies of essential materials; the availability of labour in London; the ability of EU specialist labour to work in the UK; the impact on exchange rates. The Project is already seeing some limited impact from post-Brexit uncertainty on in-flight sub-projects, resulting from lack of availability of materials and a consequent impact on market pricing.
- 4.26. The benefit of the dialogue process is that the Project team will gain meaningful insight on potential areas of impact on the ERF delivery and determine an appropriate allocation of risk between contractor and the Authority and plan mitigations in a timely manner.

#### **Align Programme Controls with Increased Construction Activity**

- 4.27. As the programme progresses into 2021, there is a step change in the scale and nature of works being undertaken from the series of enabling contracts currently

underway on site. The construction of the EcoPark South assets is the dominant activity, but the demolition of the in-vessel composting facility and former ash-handling facility will have an important impact on the critical path.

- 4.28. The story is repeated in the procurement space with the next stages of the ERF tender process needing a level of client-side resources of a much higher scale than used in previous events.
- 4.29. The oversight and management of these works needs to adapt to this; the focus needs to become narrower, with fewer live projects, but deeper into the variety of activities within the works.
- 4.30. A key element of this modification is greater alignment between cost forecasts, schedule data and risk information at a more detailed level of activities. The means by which this will be achieved is supported by the roll-out of the major digital enhancement to the programme controls at the start of 2021. The tool will be the “single source of the truth” database for Project cost forecasts, schedule and risk information and other performance metrics. This will allow the Project to employ industry best practice “Earned Value” Analysis of cost and schedule performance and take quicker decisions and actions to respond to issues arising.
- 4.31. Ultimately the Data Hub will deliver a number of key benefits including live and inclusive access to project information to all members of the NLHPP team, increased reliability and robustness of the project information and hence in decision-making, and reduced administration effort due to improved speed and efficiency of generating programme reporting.

#### **Align Delivery Management to Increased Construction Activity**

- 4.32. The volume of construction traffic will grow from early 2021 as the EcoPark South Construction contract and demolition in the northern area start, and the sewer diversion continues. Energetik will commence work on the construction of their Energy Centre. Two new entrances (from the north and the east of the EcoPark) are soon due to be opened. Hence, there is going to be major change in the EcoPark’s traffic logistics and a need to have effective management measures to avoid the risks of disruption. A traffic steering group has been established to oversee the planning for co-ordination of all sources of traffic within the EcoPark and local area and take the lead in avoiding disruption.
- 4.33. The traffic steering group’s focus for 2021 is:
  - 4.33.1. Reducing risks of congestion at EcoPark entrances/exits in 2021 and 2022 with the greatest risk at the Southern entrance. This is being addressed by working groups looking at options including:

- 4.33.1.1. Scheduling construction demand to avoid peak waste traffic movements,
  - 4.33.1.2. Use of the Northern and Eastern entrances (currently under construction) to alleviate traffic on the Southern entrance taking into account impacts on the local network,
  - 4.33.1.3. Opportunities to redirect waste to other sites where this improves efficiency of waste transport and reduces demand on the EcoPark.
- 4.33.2. Planning for the ERF construction in the northern area of the EcoPark when the demand shifts onto the Northern Entrance which exits via Ardra Road onto Meridian Way.
- 4.34. The Project team has strong interface management processes to deal with issues between the construction delivery contracts, managed through:
  - 4.34.1. A Schedule of activities and their dependencies, which is carried out through the Project Master Schedule using Primavera software tools,
  - 4.34.2. A database of technical and design interfaces, which is carried out by the lead designer and their interface register,
  - 4.34.3. Construction logistic interfaces, which is carried out by an agreed series of masterplans for the many (>80) distinct phases of site development.
- 4.35. It is recognised that the Project may be affected by the works programmes of third parties and must build these dependencies into the Project programme, maintaining regular updates that enable adverse impacts to be understood early.
- 4.36. In terms of practical working arrangements for management of the programme in 2021; two positive changes will be implemented that will significantly assist with managing the challenges of increased construction activity;
  - 4.36.1. The acquisition of the EcoPark by the Authority benefits the co-ordination of construction and operational logistics and safe working practices, through the joint Site Working Group. The Group involves LEL, the project team and contractors, facilitating optimisation between all parties of the arrangements for working on the EcoPark.
  - 4.36.2. The core of the Project team will occupy the second floor of the welfare facilities currently under construction at the Laydown Area. This will enable the Project team to embed with the EcoPark South Contractor; to re-establish a level of co-location between Project management

disciplines; and will put construction and safety supervisors in a good standard of accommodation at close proximity to the sites.

## **5. CONCLUSION**

- 5.1. Section 4 has set out the actions we have in hand to prepare the programme for the evolving challenges. The start of the new year is a good point to look at key ways in which the programme needs to adapt. Challenges arise because the scale of work increases, the size of contracts increase and the complexity of relations between operations and construction increase. Officers will report to future meetings on progress and would welcome feedback on the points raised in this paper.

## **6. EQUALITIES IMPLICATIONS**

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

## **7. COMMENTS OF THE LEGAL ADVISER**

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

## **8. COMMENTS OF THE FINANCIAL ADVISER**

- 8.1. The Financial Adviser has been consulted during the preparation of this report and comments have been incorporated.

### **Contact officer:**

David Cullen  
Unit 1b Berol House  
25 Ashley Road  
London N17 9LJ  
David.cullen@nlwa.gov.uk