

NORTH LONDON WASTE AUTHORITY

REPORT TITLE: NORTH LONDON HEAT AND POWER PROJECT – RISK
MANAGEMENT STRATEGY

REPORT OF: PROGRAMME DIRECTOR

FOR SUBMISSION TO: PROGRAMME COMMITTEE

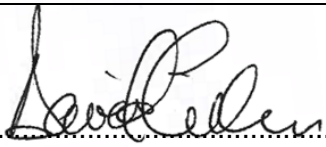
DATE: 13 January 2020

SUMMARY OF REPORT:

This report covers the proposed strategy for risk management on the North London Heat and Power Project. The report describes the approach to the identification, analysis and management of programme-level risk.

RECOMMENDATIONS:

The Committee is recommended to comment on and note the approach set out in the Risk Management Strategy in Appendix A and the programme risk information provided in Appendix B.

SIGNED:  **Programme Director**

DATE: 23 December 2019

1. INTRODUCTION

- 1.1. The North London Heat and Power Project (NLHPP) team are currently developing and implementing a programme manual - a suite of documents designed to guide successful delivery of the programme. Within this, a series of strategy documents will form the top level of the manual defining the challenges to be addressed, and the strategic approaches to meeting these. The initial set of strategies identified for development and their outline purpose is included in Table 1.

Strategy	Outline Description
Resourcing	Addresses the need for people, assets and funds.
Health, Safety & Wellbeing	Considers all aspects of keeping all parties associated with the NLHPP safe and well
Technical Assurance	Addresses how the Authority will oversee the development of the technical solution and design development
Commercial	Considers the procurement and subsequent delivery of contracts
Risk Management	Looks at the approach to management of risk
Monitoring & Control	Considers aspects associated with scheduling, controlling costs and reporting on the programme.
Information Management	Looks at the control of our information, data and knowledge.
Stakeholder Engagement	Addresses the challenges associated with the range of stakeholders in the programme.
Financing	Considers the challenges associated with planning, obtaining and managing the necessary financing for the programme

Strategy	Outline Description
Social Value	Looks at the aspects of social and community benefits that the works will bring.
Construction Management	Deals with the core construction activities and the challenges linked to interfaces, operational site working and logistics.

Table 1 - List of NLHPP Strategy Documents

- 1.2. These strategies will be provided to with Members at suitable opportunities to enable an understanding of these challenges of those elements of the project, and how the project team will address them.

2. RISK MANAGEMENT STRATEGY

- 2.1. This report presents the Risk Management Strategy. The strategy aligns with the NLHPP Vision by aiming to provide an exemplar model for public delivery of major infrastructure and to demonstrate value for money.
- 2.2. The strategy sets the framework for embedding an effective risk management culture in the NLHPP and is designed to ensure the project is alert to uncertainty and can embrace a collaborative approach to managing this uncertainty.
- 2.3. The strategy highlights pertinent challenges faced by NLHPP to deliver a high-performing approach to risk management. These relate for example to the long-term duration of the project and consequential uncertainty horizon we must manage. The challenge is how to robustly identify and account for uncertainty over a 10-year period.
- 2.4. The strategy covers the following (with further detail contained in the document itself, refer to appendix A):
- 2.4.1 The context and vision which underpins the development of the Risk Management Strategy.
 - 2.4.2 The primary challenges involved in embedding an effective risk management approach, paying particular attention to duration of the project and how this long-term uncertainty period impacts planning.
 - 2.4.3 The strategic approach required to meet these challenges.
 - 2.4.4 The associated tactical management plans which will be required to enable achievement of this strategy. These plans are either deployed or in development.
 - 2.4.5 Risks which could threaten the delivery of this strategy.
 - 2.4.6 Resources required to ensure the strategy can be implemented.

2.4.7 The key stakeholders in the process.

2.5. The explicit activities, including their timing and resourcing that are required to implement the strategy are covered in the Project Risk Management Plan.

3. PROGRAMME RISK MANAGEMENT APPROACH

3.1. The NLHPP is a series of inter-related projects which are being delivered to achieve a common goal. Each of these projects has its own unique risk profile which requires management and control in a manner aligned to the project schedule. However, there are risks to successful delivery of the NLHPP which cannot be managed from within a single project. These can be;

3.1.1 Cross-cutting risks (i.e. risks that are common to more than one project and would benefit from a consistent approach to mitigation)

3.1.2 Risks at the interface between two or more projects

3.1.3 External risks outside the direct control of the NLHPP.

3.2. A “programme-level” risk management approach is crucial in managing this complexity.

3.3. A programme risk has similar attributes to project risks, but has the potential to impact multiple, or perhaps all, projects in terms of cost, schedule, quality and or reputation.

3.4. To ensure the NLHPP identification of programme risk was robust, a strategic workshop was held in February 2019. The attendance at this workshop included senior project team members, and senior representatives from LondonEnergy Ltd and from the Authority’s advisers with significant experience in delivering Waste to Energy schemes. The aspiration for involving a diverse and experienced group of experts was to ensure identification was comprehensive and considered lessons gained from previous projects.

3.5. This workshop resulted in the identification of 57 programme risks. These risks were categorised into:

3.5.1 external (Political, Economic, Social, Technological, Legal & Environment);
and

3.5.2 internal (Leadership / Organisation, Construction, Operations,
Procurement, Delivery)

3.6. In addition to identification, the experts provided a view on potential impacts of each risk in terms of likelihood, cost, time and reputation and these 57 risks and their potential cost impacts informed the programme contingency value attributed to the overall baseline budget.

3.7. The management of programme risk follows the same principles as the project risks; each risk has been allocated a probability of occurrence, potential cost, schedule and reputational impact. This information allows us to understand impact

relative to each programme risk and therefore prioritise efforts on risks with the highest potential impact.

- 3.8. Crucially, each programme risk has a defined risk owner from the NLHPP Leadership Team allocated to it. The risk owner is accountable for the management of this risk and entails defining the mitigation strategies required to reduce NLHPP exposure.
- 3.9. Programme risks are reviewed with NLHPP Leadership on a regular basis reflecting when mitigations are proximate. The risk owner is expected to have progressed mitigations and engaged with relevant stakeholders where appropriate. These reviews serve as an opportunity to review the prioritisation score allocated to the risk and introduce additional mitigation measures.
- 3.10. Appendix B provides a summary of the top 10 programme risks with a description of the current status including the mitigating actions undertaken to reduce NLHPP exposure to each risk. These programme risks are currently ranked as high priority risks, and have been consistently ranked at this level since the initial assessment at the point of baselining the programme. Considering the long-term nature of NLHPP, the risk score associated with these risks will only be reduced once a favourable step change in exposure has been achieved i.e. significant reduction in the probability or impact to NLHPP.

4. EQUALITIES IMPLICATIONS

- 4.1. This strategy has no direct implications on equalities.

5. COMMENTS OF THE LEGAL ADVISER

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

6. COMMENTS OF THE FINANCIAL ADVISER

- 6.1. The Financial adviser has been involved in the preparation of this report and all comments have been incorporated.

Contact officer:

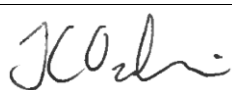
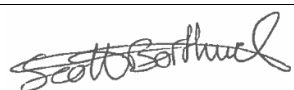
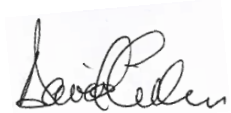
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APPENDIX A: RISK MANAGEMENT STRATEGY



Risk Management Strategy

Document Details	
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Assurance Record			
	Author	Check & Review	Approval for Use
Name	James Ozdemir	Scott Borthwick	David Cullen
Role	Programme Controls Lead	Programme Office Lead	Programme Director
Signature			
Date	05/11/19	05/11/19	28/10/19

Revision Record		
Rev. No.	Date	Description of Revision
1	16/07/2019	First issue for comment by other functional leads.
2	28/10/2019	Approved version

Engagement Confirmation		
Function	Role Support	Notes
Programme Director	C	Consulted
SRO	C	Consulted
SHE&W	C	Consulted
LEL	N/A	
Technical Advisor	N/A	
Technical Authority	C	Consulted
Programme Office	C	Consulted
Project Delivery	C	Consulted
Legal & Governance	C	Consulted

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1 Context and Vision

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.

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

The NLHPP leadership team have developed a vision for the programme, highlighted above. Each function of the programme organisation will play a role in delivering the vision and this document, the “functional strategy”, sets out the challenges to achieving the vision and the approach to overcoming them.

2 Purpose

This document is the functional strategy for Risk Management. Its purpose is to ensure that the NLHPP programme is alert to and actively addressing risks that may affect its delivery. It is intended that the strategy will aid the embedding of a positive risk management environment across the NLHPP programme, designed to identify uncertainty and drive collaborative behaviours in mitigating such risks.

By setting a best practice approach to managing risk and uncertainty, the risk management strategy will particularly support the NLHPP vision in (a) providing an exemplar management approach that can be held as a future model for others to follow, and (b) consequentially demonstrating value through the minimisation of costs arising from unforeseen events.

3 Starting Point

In context of the project delivery environment, the PMO and Risk Management function are in their nascent stage of capability. The Risk Management function is emerging in a period of transformational change where the organisation transitions to a delivery-orientated group.

While risk management have been considered from the outset of developing the NLHPP programme, it has primarily been strategic in nature and not previously been integrated into formal project management procedures to align with cost, schedule and change. A full project and programme risk management framework will be implemented to achieve higher levels of maturity in risk management.

4 Challenges

The programme challenges impacting on the area of risk management, and that this strategy will support the addressing of, are:

Challenge	Description
High profile	This is a large scale, public authority programme and will as a result face a high degree of scrutiny
Extensive governance requirements	As a public entity, the NLWA has fixed and very specific requirements which must be adhered to, particularly in decision making
Complex interfaces	The programme consists of multiple projects, supported by multiple parties, including the NLWA, advisors, contractors and LondonEnergy Ltd (as the operator) and involving interaction with various third parties
Constrained funding	The programme will be funded using taxpayers' funds
Long-term project timescale	The length of the programme leads to higher levels of uncertainty, particularly in future years
Lack of existing project infrastructure	The current state is that of an early project environment where information, processes and requirements are still being defined

5 Strategic Approach

The risk focussed approach to meeting these challenges will be based around the following key areas:

Area	Explanation	Addresses
Deployment of a Programme Risk Management plan	Establish a consistent and sustainable approach for addressing risk, based on industry best practice for use on all projects and by all participating organisations.	<ul style="list-style-type: none"> • Complex interfaces • Long-term project timescale • Lack of existing project infrastructure
Develop high quality data and documentation	Establish clear, concise and auditable documentation, including a risk register database and supporting processes.	<ul style="list-style-type: none"> • High Profile • Long-term project timescale • Lack of existing project infrastructure
Implement comprehensive analytical techniques	Establish regular qualitative and quantitative assessments of risk to inform management plans and contingencies.	<ul style="list-style-type: none"> • Extensive governance requirements • Constrained funding • Complex interfaces
Embedding of risk management into behaviours	Ensuring that all team members are considering and managing risk in all their project activities.	<ul style="list-style-type: none"> • Complex interfaces • Long-term project timescale • High profile
Integration of risk with other disciplines	Alignment of risk management with cost, schedule, design and assurance processes to create an integrated management environment.	<ul style="list-style-type: none"> • Extensive governance requirements • Complex interfaces

6 Supporting Plans

The following management plans and supporting documents will be required to implement this strategy.

Management Plans/Documents	Purpose	Description
Risk Management Plan	Establish the programme-wide agreed approach to managing risk.	The document describes the procedures for risk management across the delivery organisation and for future contractors. All members of the delivery organisation will be expected to follow these procedures.
Risk Register	Single source of truth for all risk information.	This register will record the identification, assessment and monitoring of NLHPP risks and act as the central record and control document.
Cost Management Plan	Addresses the challenge of delivering the scope within the baseline cost	The contingencies identified as part of each risk assessment will be managed and reported against as part of the NLHPP cost system
Change Management Procedure	Addresses the challenge of maintain control over scope and the core	Change and risk must be integrated to establish robust control measures for delivery and establish the mechanism by which project managers can draw down against their contingencies.
Reporting & Meeting Plan	Providing robust, reliable and timely risk information.	This plan will set out the timescales and requirements for the NLHPP management reporting structure, within which risk will be a core part.
Digital Development Plan	Examining opportunities for enhanced recording, management and reporting of risk data.	This plan will look at opportunities across the programme to enhance the delivery through use of advanced digital tools and systems.

7 Risks

Potential risks which threaten the successful delivery of the risk management strategy are:

Description	Planned Mitigation(s)
Lack of engagement from members of the delivery organisation	<ol style="list-style-type: none"> 1) Establish a remit and accountability for risk management in each function of the programme organisation. 2) Establish a proactive programme office and risk function to facilitate engagement and provide support. 3) Comprehensive and regular communication of the risk management process and current data to ensure all prospective participants are engaged.
Inadequate implementation of the risk management plan	<ol style="list-style-type: none"> 1) Ensure formal approval and leadership buy-in for the NLHPP Risk Management Plan; engage with all stakeholders in its development. 2) Comprehensive and regular communication of the risk management process and current data to ensure all prospective participants are engaged. 3) Proactive central support (PMO) to facilitate the risk management process.

Description	Planned Mitigation(s)
Change in delivery team over long duration (loss of knowledge)	<ol style="list-style-type: none"> 1) Ensure comprehensive capture of risk data in a central project risk register. 2) Implement collaborative project risk reviews to reduce dependency on single knowledge source.
Negative culture, e.g. blame culture, resulting in 'information hoarding'	<ol style="list-style-type: none"> 1) Implement transparent reporting protocols to ensure risk data is shared early and visible to key decision makers. 2) Implement collaborative risk reviews with all relevant parties.
Poor quality of input data	<ol style="list-style-type: none"> 1) Central PMO to be proactive involved in the project risk review process and to ensure data is of sufficient quality at source. 2) Train contributors in the quality requirements for risk data and maintain feedback loop as reviews continue.
Output/Reporting requirements are unclear.	<ol style="list-style-type: none"> 1) Agree key reporting requirements early in delivery to standardise information and reporting. 2) Adopt automated reporting and data extracts where feasible.

8 Development

The Risk Management Strategy is intended to be valid for the duration of the NLHPP programme; however, it is recommended that this strategy document and associated plans are reviewed periodically. This is to allow a check that new or emerging challenges and strategic opportunities continue to be addressed suitably. A roadmap will be developed as part of the risk management plan to provide a progressive development of the risk management environment, including allowing for the opportunity to introduce new digital tools and technologies where there is a benefit or value to be gained.

9 Resources

In establishing and delivering the risk strategy and its subsequent management plan, some key resource requirements have been identified:

Resource	Requirement
People	<ul style="list-style-type: none"> • Specialist Risk Manager • Established discipline specialists for integration of risk data (e.g. cost and schedule manager) • Project Managers as responsible for risks being addressed • All team members in terms of time to engagement with risk management and ongoing delivery of the strategy.
Tools	Risk Database – Microsoft Excel in short/medium term with long term view of assessing benefits associated with adopting a specialist risk system.

10 Functional Stakeholders

A high-level summary of stakeholder interfaces is captured below. A full detailed stakeholder management plan with regards to risk will be prepared within the risk management plan.

Stakeholder	Relationship
Programme Office	Accountable to and integrated with its disciplines.
Project Delivery	Consulting on risk status and informing through reporting
Governance and Legal	Consulting on risk status and informing through reporting
Commercial	Consulting on risk status and informing through reporting
Finance	Consulting on risk status and informing through reporting, requires integration between finance and contingency data.
Technical Authority	Consulting on risk status and informing through reporting
Professional Advisors	Consulting on risk status and informing through reporting
Technical Advisors	Consulting on risk status and informing through reporting
Legal Advisors	Consulting on risk status and informing through reporting
Planning Advisors	Consulting on risk status and informing through reporting
Financial Advisors	Consulting on risk status and informing through reporting
Supply Chain/Contractors	Consulting on risk status and informing through reporting
Operator/LEL	Consulting on risk status and informing through reporting
Officers	Informing on risk status through reporting
Members	Informing on risk status through reporting
Public	No direct external contact

APPENDIX B: TOP 10 PROGRAMME RISKS

Risk ID	Risk Description	Risk RAG	Current Status
68	There is a risk that insufficient market engagement or perceived risk associated with the Waste industry may lead to the Programme receiving inadequate responses to Procurement. This could result in significant schedule delay.		All preparatory works contracts have been awarded successfully since baseline which has reduced this risk somewhat. However, critical procurements are still in progress and the implications of a failure would be significant. Going forward, extensive engagement with the supply chain is planned and we are adopting a progressive commercial approach to provide an attractive proposition to the market.
102	Suitable public funding options may be unavailable or become unattractive which could lead to a delay in works or result in more costly financing options.		A proportion of funding has been successfully secured at a favourable rate of interest. Our Financial Advisors are continuing to evaluate future financing options in light of the recent interest rate increase by the Public Works Loan Board including investigating the Bond market. Emphasis placed on accurate financial forecasting to support optimal financial planning.
117	There is a risk that project delivery works may impact LEL site operations beyond planned scenarios and result in operational down-time or reputational impacts.		Significant engagement with the Operator at project level through the site-working group (SWG). The SWG meets frequently with attendance from the Operator, NLHPP Contractors and Advisors to ensure effective forward planning for all site activity. Looking ahead, a key focus for the SWG will be the construction and operational traffic planning on the EcoPark in addition to maintaining operations and ensuring health and safety on site.
118	LEL operations may impact construction works beyond known constraints and result in delay or change to NLHPP Contractors.		NLHPP delivery team will be working closely with LEL to evaluate options to segregate operational and construction traffic. In addition, Operator involvement will be crucial during the EcoPark South Early Contractor Involvement.
159	New or ineffective relationships with Statutory Undertakers may manifest in unreliable delivery commitments. This could result in change to milestones on which NLHPP Contractors are dependent and therefore have cost/ schedule implications.		Engagement with Statutory Undertakers has taken place at project level with relationships forming between our delivery teams and their counterparts in each organisation e.g. UKPN. This includes attendance at LB Enfield Street Works quarterly review which will involve participation from multiple Statutory Undertakers. Going forward, the leadership team will continue to seek to influence at more senior levels if progress blocks become apparent.
302	The existing site is space constrained which may result in storage and delivery challenges. The consequence of this would be significantly more site-wide temporary works to support operations and construction.		Several successful procurements have taken place across the complex south site area e.g. Sewer Enabling Works and Sewer Main Works. Having these Contractors on board offers significant opportunity to mitigate this risk through enhanced collaboration. Significant effort will be focussed on bringing together these two key Contractors and eventually engaging the EcoPark South Contractor.
308	Additional elements of scope may be identified as the programme of works progresses and design/planning continues to mature.		Design development has continued with several workstreams undertaken to enhance our understanding of the site and construction phasing. For example, intrusive surveys have highlighted new information which will be communicated to our Contractors to inform their design and construction planning. Construction phasing has matured with extensive sets of phasing drawings developed which has flushed out a requirement for additional enabling works for the EcoPark South.
351	Uncertainty regarding Brexit and subsequent political and economic decisions may negatively impact NLHPP.		The terms of the UK's departure from the EU - looking over the whole life of the project - is uncertain. Some risks relate to the construction sector as whole (eg availability of labour and range of sectors with major projects) The mitigations under risk 68 assist with this. There could be more project-specific impacts, such as tariffs on imported equipment and materials. These are beyond the ability of the project to estimate at this stage but are likely to impact on cost rather than on deliverability of the project. While cost pressures are not welcome, they are not expected to give rise to concerns of overall affordability of NLHPP.
483	Extent of parallel operations for EfW and ERF during transition is uncertain and may require additional Capex.		ERF specifications are being developed in anticipation of procurement commencing 2020. The parallel operation of the two assets will form a crucial part of the specification to ensure ERF Contractors define a robust transition methodology. In addition, LEL have developed a project team for the NLHPP which will focus on their readiness to operate new assets.

Risk ID	Risk Description	Risk RAG	Current Status
505	Groups and individuals opposed to the project may seek to raise the profile of their concerns.		Through constructive communications the project team is strengthening the explanation of the benefits of the project, showing how this fits within an overall circular economy strategy. The team is also engaging extensively with residents, community groups and political representatives to help ensure understanding of the project and to address concerns raised. This will need ongoing focus and attention, including internet and social media presence. In order to ensure the Authority is able to resist any judicial review attempts which may delay the project, we take care to ensure compliance with legal processes.