



Market Sounding Questionnaire

Midland Main Line (MML) Phase 3 Electrification Programme

This Market Sounding Questionnaire (MSQ) is not a call for tender or a pre-qualification exercise.

Network Rail is under no obligation to use or incorporate any information provided as part of this consultation process within future procurements, nor proceed to any procurement event for rail electrification.

There is no obligation to the supply chain to participate in the consultation process (or subsequent stages of market engagement) and your participation at this stage will have no bearing on your ability to participate in any resulting procurement event.

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Part 1: Background Information

1. Introduction

On 15th June 2022, Network Rail held a briefing event to inform the market about the status of its emerging procurement strategy for the Midland Main Line (MML) Electrification Programme.

This follow-up market sounding (MSQ), issued by Network Rail, invites market feedback in relation to the proposed procurement for the MML Electrification Programme.

The key objective is to test and validate the proposed delivery, commercial, procurement and contracting model with a view to refining the procurement strategy for MML.

We would greatly appreciate your feedback in the form of a response to this questionnaire. This exercise does not form part of any formal procurement process. All responses will be carefully considered but will not bind Network Rail to any particular approach to the procurement, nor will responses be treated as conveying any promise or commitment on the part of the respondent.

Please note, this market engagement process (and preceding Periodic Information Notice via 'Find a Tender') is not a call for competition as defined in the Utilities Contract Regulations 2016.

2. Feedback Request

Your response is very important and will allow Network Rail to canvas and analyse views from the supply chain to inform its procurement strategy. Network Rail plans to finalise the procurement strategy, including the required governance and assurance by the end of December 2022 with a view to commence the call for competition in January 2023. The intention is to award the framework by April 2024.

This questionnaire will not form part of the formal procurement process. Please respond to the questionnaire using the MS Forms, <https://forms.office.com/r/xDCZ9mi1YF> by **17:00pm on 8 July 2022** to ensure that your feedback is considered.

Prior to completing the MSQ, please ensure you have read the enclosed MML Market Briefing pack presented at the recent market engagement event held on 15 June 2022. To access and view the full video recording of the market briefing event, please click on the following link, [Market Event 150602 - OneDrive \(sharepoint.com\)](#).

We request that no information of a general marketing nature be submitted. We cannot accept company marketing brochures as part of your response.

3. Information to Note

Any comments, indications of interest, participation or non-participation by an organisation prior to the commencement of any formal procurement process will not influence the selection process and/or award decision forming part of any future procurement, nor will it be taken as an organisation's committed position in relation to any of the subject areas explored in this market sounding exercise

All responses will be carefully considered by Network Rail when finalising the procurement strategy for this MML Electrification Programme, however, Network Rail is not bound to adopt, include or implement any particular approach going forward.

Network Rail reserves the right to alter the scope of services at any time / amend the approach/ not progress with any future procurement. Network Rail will not be responsible for the costs or expenses in relation to any matter referred to in this document howsoever incurred.

The information in this questionnaire remains the property of Network Rail and may be used only for the purpose of responding to this consultation request. All responses received to this questionnaire also remain the property of Network Rail.

Part 2: MML Electrification Background

4.1 MML Programme Context

The railway plays a vital role in supporting the economy and connecting communities across Britain. It is already the most environmentally friendly mode of public transport, contributing less than one per cent of UK annual greenhouse gas emissions. Rail has the potential to move large volumes of people and goods reliably with zero carbon emissions with current technology.

The Midland Main Line (MML) runs between London St Pancras and Sheffield, encompassing key stations, including Luton, Bedford, Corby, Leicester, East Midlands Parkway, Derby, Nottingham and Chesterfield in the UK. Network Rail initiated the MML improvement programme with an objective to increase the passenger capacity, reduce the journey times, and curtail carbon footprint by introducing greener trains through electrification. This also supports the Government's economic and net zero ambitions.

Network Rail's vision is that the Midland Main Line (MML) electrification will be the catalyst to a decarbonised national railway. By enabling electric trains to run on the line utilising a lower emission energy source to help reduce greenhouse gases, improve air quality, and improve the passenger experience. The MML Electrification Programme is an integral part of the Integrated Rail Plan (IRP), which sets out the largest and most ambitious Government programme of investment ever in the railway.

Network Rail's mission is to create a step change in the delivery of an efficient electrification programmes, which challenges convention and generates a best value solution to enable a zero-emission rail network that supports the Government's commitment to achieve net zero by 2050 and deliver sustainable benefits for generations to come.

The programme outcomes we are looking to achieve, which underpin our vision and mission statement is summarised as follows:

- Reduction in greenhouse gas emissions (GHGs) and improvements in air quality along the route and around the stations;
- Improved passenger service and experience;
- Reduced train operating costs; and
- An affordable and efficient template for future electrification

The MML programme delivery will also support and create a multitude of valuable benefits, including but not limited to:

- Direct employment in creating jobs and supply chain value
- Increased productivity and stimulation of the economy
- Confidence that electrification of the railway can be delivered affordably and efficiently

Ensuring the right values and behaviours are in place from all those involved in driving the delivery of the MML programme is essential. In terms of our values, we want to create an environment, where the programme delivery team can thrive collaboratively and support one another as part of our 'One Team' culture to deliver the programme outcomes.

Embedded within that is ensuring our supply chain is strategically aligned and engenders the behaviours to work differently and innovatively together to drive continuous improvement by challenging how we operate and striving to beat our target. This will enable us to effectively demonstrate that MML electrification is affordable and can be delivered efficiently, creating a legacy for future electrification within the UK rail industry, whilst supporting the wider economy.

Network Rail has translated its Strategic Business Case requirement into a strategic brief, which sets out the investment purpose for the MML Electrification programme. To meet our commitments and inform how we achieve the Strategic Brief, Network Rail have developed a target operating model (TOM). The TOM provides the building blocks of our Programme Strategy and informs our methodology and delivery approach, including our ways of working and how we operate. This is underpinned by the MML value propositions and our core pillars.

Details of the MML Electrification Benefits plan, details of the Target Operating model and the strategic development principles that support this can be found in the enclosed Market Briefing pack.

4.2 MML Electrification Programme

London to Corby electrification, which is the first key output of the MML programme has been completed and electrification between Kettering and Wigston has recently been procured. The next stage of further electrification, which is in scope of this market sounding and intended future procurement of the Partner Framework is between Wigston and Nottingham out to Sheffield (route section 2 – 8).

Under the MML Electrification programme this will enable the electric operation of the new bi-mode trains on the whole of the MML, delivering 100 % electrification from London- Sheffield (136km and 113 structures).

The output of this procurement exercise will enable electric operation of new bi-mode trains of a 2040 future timetable and deliver:

- Works required to install the Overhead Line Equipment (OLE) between Wigston and Nottingham out to Sheffield;
- Route clearance to accommodate OLE extension, including major track and civil works; and
- Increased power supply to support electric passenger services to Sheffield and Nottingham.

4.2 Programme Challenges

The recently commissioned London to Corby electrification programme was delivered at a rate of £3.7m per STK with the application of SPEED principles. This next phase of electrification is targeted to deliver £2.5m per STK.

This programme focuses on challenging and driving down the STK rate by making a step change in the solutions we deliver and how we deliver them. The key outcome is creating a benchmark, which essentially sets a precedent to enable repeatable future electrification, which continuously drives improvement.

Our priority is implementing minimum viable product (MVP) solutions, which makes best use of digital technology and innovation, and is in line with the SPEED principles to meet the primary programme outcomes. This requires mutual alignment in relentlessly driving down both indirect and direct costs throughout the programme, whilst ensuring viable and sustainable solutions, which continuously adds value.

Further details around the challenges, MVP principles and associated case study can be found in the enclosed Market Briefing pack.

4.2 Proposed Integrated Production Delivery Model

In response to these challenges and programme constraints, Network Rail has extensively considered the requirements and widely analysed the potential delivery arrangement with input from industry experts, including the National Electrification Efficiency Panel (NEEP), as well as applying valuable lessons learnt. This includes other electrification programmes and rail programmes, such as Crossrail and HS2, where we recognise the importance of taking a systems approach for such large infrastructure delivery. Furthermore, Network Rail have also looked at other industries, specifically manufacturing and seen the benefits of a production line approach, which deliver similar repeatable programme activities, whilst progressively improving the unit cost performance. This has helped form the basis of our proposed production line approach for the delivery of rail systems.

Network Rail's delivery model will be split into the three definitive phases below, which will have specialist suppliers in their respective fields embedded into distinct work disciplines under the production phase.

- i) Pre-production
- ii) Production
- iii) Decarbonisation

Activities in each of phases will be deconflicted by distance and time and integrated by energisation event rather than individual route sections.

During the pre-production phase Network Rail will establish a fixed baseline of requirements and will work collaboratively with the Designer(s) and supporting integration technical experts on the upfront design development to de-risk, value engineer, optimise, innovate and integrate the design, which will be progressed up to a sufficient and confident level of design maturity for the production phase (e.g., AIP design).

Network Rail will then procure the Partner Framework during the production phase, for the detailed design and delivery of the MML Electrification Programme. This will follow a chronological delivery of works initially with enabling works followed by route clearance, immunisation and electrification.

A defined breakdown of the production delivery model and how it will work in practice in the delivery of the works across the programme can be found in the enclosed Market Briefing pack.

4.4 Balanced Scorecard for Rail Procurement

Network Rail recognises that success will be dependent on the supply chain being bought in and aligned to the delivery of the MML Electrification programme outcomes.

In order to achieve this, Network Rail has developed a Balanced Scorecard for the MML procurement, which identifies the priority Critical Success Factors (“CSFs”). The Balanced Scorecard has been developed from the ‘Rail Industry Balanced Scorecard Tool’, which is built upon the Crown Commercial Services (CCS) Procurement Policy Note (PPN 09/16) entitled “Procuring Growth Balanced Scorecard” but has been further developed for the rail industry through cross rail sector member consultation.

Different procurement model options were scored against the ability to deliver the identified CSFs to determine the most appropriate procurement model. The assessment established the Partner Framework as the most optimal procurement model.

The identified CSFs form part of the ‘Golden Thread’, linking how the supply chain will be procured and contracted to deliver the MML Electrification programme outcomes. Subsequently, the CSFs help guide development of the procurement award criteria and Key Performance Indicators (KPIs).

Full details of the CSFs for MML procurement can be found in the enclosed Market Briefing pack.

4.6 MML Procurement Model

To ensure Network Rail leverages suppliers capabilities during the production phase, the Partner Framework shall be split into four discrete work disciplines across the following lots:

- Lot 1 - Traction Power
- Lot 2 - Civils (structures)
- Lot 3 – Overhead Line Equipment (OLE)
- Lot 4 - Signalling and Immunisation

Outside of these lots, complex locations may be delivered separately through bringing Partner within each discipline together under a joint agreement (e.g., a partnership agreement) or be procured as a separate exercise.

For other disciplines, it is intended for these to be delivered through a combination of existing and internal routes:

- Enabling works - Network Rail Direct Delivery
- Track – existing Central Rail Systems Alliance (CRSA) team

- Internal inputs from existing partners SCO (Supply Chain Operations), OCR (Overhead Condition Renewals), and NRDD (NR Direct Delivery)

This procurement approach engenders the ‘best for programme’ principle and offers the most efficient way to deliver the programme of works.

It is Network Rail’s current thinking that two (2) to four (4) Partners are considered the optimum amount to be appointed to each lot on the framework. Moreover, there is a need to achieve appropriate resilience in delivery and to ensure business contingency. This is currently being considered with potential options in place via the Partner Framework to ensure Network Rail has ease of access to capable contractors as and when necessary.

To ensure an integrated project and delivery team, the intent is to have an overarching Partner Board, which will co-ordinate and optimise how we want to operate and work together as “One Team”.

Further details can be found in the enclosed Market Briefing pack.

4.7 Commercial and Incentivisation Approach

Network Rail recognises that incentivisation is a powerful mechanism to help drive suppliers’ performance to outperform objectives. Therefore, Network Rail has developed a simple incentive regime, which seeks to target and drive performance that relate to the achievement of Network Rail’s strategic goals and programme objectives.

Network Rail are looking to implement a performance-based mechanism (no “bidding” for work), which comprise of two levels:

- **Level 1 Individual Performance Outputs** – include targets to incentivise Partners to individually outperform their obligations under their call-off contract within individual lots.
- **Level 2 Overall Performance Outcomes** – include targets to incentivise Partners to collectively work together at framework lot level to drive continuous improvement for the whole programme.

During contract mobilisation, it is anticipated Framework Partners will be given the opportunity to familiarise themselves with the integrated programme and design.

Level 1 Individual Performance Outputs – Following allocation of the first packages of work (e.g., Route Section 4), performance for delivering the first work packages shall be assessed through a suite of Key Performance Indicators (KPIs). The performance against these KPIs will impact and moderate the future allocation for the subsequent tranche of work packages under the remaining route sections.

Level 2 Overall Performance Outcomes – outperformance against a suite of collective KPIs will be used to determine additional gain share rewarded from Network Rail’s proportion of the gain share.

Further details of the proposed incentive regime can be found in the enclosed Market Briefing pack.

4.6 Contracting Strategy

In line with best practice and the Construction Playbook, Network Rail has committed to using the NEC4 Engineering and Construction (ECC) suite of contracts for all major construction and professional services appointments.

Network Rail intends to predominately use NEC4 ECC Option C - target price contract with activity schedule. However, this may be subject to change as the programme matures in its capability.

4.7 Procurement Route to Market and Indicative Timeline

Network Rail intends to procure a five plus (up to) five-year Partnership Framework following the Utilities Contracts Regulations 2016 negotiated procedure, consisting of pre-qualification questionnaire (PQQ) and Invitation to Negotiate (ITN) stages.

Activity	Start	End	Notes
Publish MSQ	21/06/22	08/07/22	Sent to the supply market, including all those who attended the market briefing event scheduled on 15 June 2022
Market feedback evaluation	08/07/22	08/08/22	The collated feedback will be reviewed and evaluated against the Sourcing Strategy to test, shape and validate the key principles and proposed models. <i>* Network Rail may conduct optional market engagement to further test and refine key principles and proposed models where necessary prior to any potential procurement event.</i>
Develop and Finalise Sourcing Strategy	Ongoing	September 2022	Finalise the Procurement Strategy in readiness for internal governance approval and assurance gates.
Required approvals and governance for the Sourcing Strategy	September 2022	December 2022	The Procurement Strategy will be subject to a series of internal review forums / approval gates before deciding on any procurement event
Call for competition	January 2023		

Appendix 1 – Outline RACI and Principles of Programme Integrator

Current proposed thinking on the key roles within the programme and accountabilities of these roles, and how they may be sourced - subject to feedback from MSQ & ongoing K2W works					
	Programme Integrator	Technical Integrator	Lead Designer	Delivery Partner (Delivery Partners under this procurement)	Partner Board
Accountability	Holds overall strategic risk of integrating the programme & achieving programme outcomes of cost, quality, and time to achieve STK Rates	Holds overall strategic risk of integrating and assuring the overall quality of engineering outcomes to achieve APIS & EIS	Co-ordinates the overarching design through the federated model, holding strategic risk of design integration outcomes, particularly in Design Definition stage as inputs to Design & Build contracts	Holds individual risk of production performance in design & build outputs	Collaborative forum delivering Programme level governance to ensure best for programme decisions to protect STK rate
Role	Forms the central leadership hub of the entire programme	Sits as part of the Programme Integrator as Technical Lead	Sits as part of the Technical Integrator as Lead Design Organisation & co-ordinates and assures "Definition Design" & assures detailed design	Sits as design & build specialist partner in "Production & Decarbonisation" phases	To provide clarity and alignment to all supply chain partners which support the Midland Mainline Electrification Programme
Composition	Comprises Client accountabilities delivered via an integrated team with Network Rail in core positions, and key roles fulfilled by "best athletes" from Delivery Partners or support from framework consultancy providers.	Comprises client accountabilities delivered via an integrated team with Network Rail in "Head of Engineering" role, and other roles fulfilled by "best athletes" from Delivery Partners or support from framework consultancy or alternative design framework providers.	Comprises Principal Designer accountabilities, formed via an integrated team comprising "best athletes" from design framework holders, framework consultancy providers and/or Delivery Partners.	Comprises framework holders secured under this procurement for specific disciplines, comprised solely from supply chain	See terms of reference
ECI	Includes ECI from Delivery Partners on a generic basis (i.e., independent of any decision to deliver - constructability support may come from a different organisation to that undertaking the delivery of that particular section)	Includes ECI from Delivery Partners on a generic basis (i.e., independent of any decision to deliver - constructability support may come from a different organisation to that undertaking the delivery of that particular section)	Includes ECI from Delivery Partners on a generic basis (i.e., independent of any decision to deliver - constructability support may come from a different organisation to that undertaking the delivery of that particular section)	Provides ECI into definition design through programme and technical integrators as an agnostic service to make sure designs are constructable and drive MVP in delivery. All delivery partners expected to underwrite / take on definition design & not change approach through into delivery to prevent rework.	n/a
Sourcing	Current proposal is sourced via existing frameworks (e.g., but not limited to Design Services Framework, existing Consultancy frameworks)	Current proposal is sourced via existing frameworks (e.g., but not limited to Design Services Framework, existing Consultancy frameworks)	Current proposal is for definition design (e.g., AIP) to be sourced via existing frameworks (e.g., but not limited to Design Services Framework, existing Consultancy frameworks) with detailed design provided by Delivery Partner	Sourced via MML Electrification Delivery Partner procurement (this procurement)	comprising all delivery partners, MMLE senior leadership team, route, and sponsor.

Appendix 2 - Draft Terms of Reference for MML Electrification Partner Board

MML Electrification Partner Board (ToR)

Bringing collaboration to life to lower the cost of electrification

Purpose

To provide clarity and alignment to all supply chain partners which support the Midland Mainline Electrification Programme

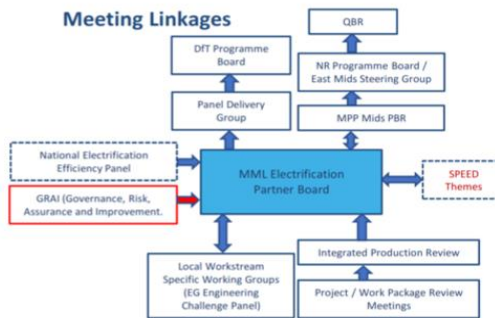
The following objectives form the basis of the meeting:

- Monitor our collective progress and performance against our core objectives – Progressive assurance of our key activities
- Ensure consistency of approach against our strategic aims & ensure we have a strategy to deal with each of these priority areas
- Provide strategic direction across the programme
- Manage escalation decisions & best for programme trade offs
- Support our teams with clear direction and leadership
- Continually challenge ourselves & hold each other to account to facilitate positive change

Members

- Chair: Principal Portfolio Manager
- Electrification Partners: TBC
- B&C Partners: TBC
- Signalling Partners: TBC
- Track Partner: Central Rail Systems Alliance
- Enabling Partner: Direct Delivery
- Senior Leadership Team (NR Client):
 - Head of Production Integration
 - Head of Planning & Integration
 - Head of Commercial
 - Head of Engineering
 - Head of Production Services
 - Senior Sponsor
 - EM Route Representative

Meeting Linkages



Board Outcomes:

- Developing consistent, safer, and more efficient methods of delivering Electrification using a production philosophy
- Oversight of all workstreams that combine to form to STK rate
- The Board to develop strategy, co-ordinate drive collaboration & challenge, lead the creation of efficiencies and improve performance
- Alignment into DfT, HQ, Route and Region stakeholders
- Align implementation plans
- A clear vision and expected outcome of remitted / contracted works
- Collaboration on new concepts

KPIs

- Project/Work Package Development against key milestones
- STK Rate
- Whole Life Costs
- Safety

Inputs

- Integrated Programme Plans
- Efficiency Tracker
- Risk Logs
- Opportunity Logs

Outputs

- Strategies and decisions
- Items for escalation / cascade
- Summary Board reporting



Agenda

Period Meeting scheduled in week 4 prior to period end data freeze

- Safety & Sustainability
- STK Performance & Programme Efficiency Strategy
- Transformation – learning from other areas, best practice, industry learning
- Schedule progress
- Critical Resources, optimisation & pipeline (including national view/demand)
- Progressive assurance of Energisation, Handover, CSM
- Strategic Risks and Opportunities (including wider corporate context)
- Legacy



Version 1.1

MANY THANKS FOR TAKING THE TIME TO COMPLETE THE QUESTIONNAIRE.