Notification of Supplier Day and Request for Expressions of Interest

RSSB research project T1145 *Planning and supporting rail decarbonisation*

RSSB, on behalf of the rail industry, are seeking to understand options and costs for decarbonising traction energy throughout the GB rail network

Purpose

This notification is to invite potential suppliers to attend a supplier day on **21** **March 2018** and/or provide information through Expression of Interest (EoI).

The supplier day will offer more detail on the background to the research proposal and suppliers will be given the opportunity to ask questions to establish a greater understanding of the project and support the direction of the research.

The EoI enables interested parties to put forward their capability and also provide any thinking that could support the development of the scope. To feed into the process, EoIs will need to be received by COP **20 March 2018.**

Background

The Rail Technical Strategy (RTS) seeks to assist the industry’s strategic planning process, and a significant component of this is the ‘optimum energy use’ key capability. This focuses on new approaches to meet the energy requirements of the railway system, including alternatives to diesel, smart grid technologies and battery/dual power systems, amongst others.

The proposed research project is intended to provide support on the decarbonisation of traction energy through the development of a roadmap and of an economic model to act as a decision support tool. In addition to this, the work should complement a wider industry response to the call for ‘decarbonising rail’[[1]](#footnote-1) by 2040 from the Minister of State at the Department for Transport, Jo Johnson.

Scope of work

The envisaged scope of work can be summarised as:

**The development of scenarios that will lead to decarbonisation of traction energy**

A range of scenarios for reducing and/or eliminating the network’s carbon emissions associated with traction energy will be established. The scenarios could include consideration of a range of factors:

* Technology evolution over the next 20 years, including other modes
* Trends in costs of electrification and other traction energy sources, including other modes
* Rolling stock life cycles
* Requirements on supporting infrastructure
* Future freight and passenger services demand
* Timing and scheduling requirements for achieving the desired outcomes
* The associated challenges and risks

**The development of an economic model to investigate the relative attractiveness of options**

The economic model will assess the costs and benefits of different scenarios to establish the most viable scenario and key milestones to form a roadmap. The model should consider elements including:

* Investment requirements and funding options
* Opportunity costs
* Operational costs/savings
* Timing factors
* Benefit realisation across the broad impacts of the initiative
* Risk factors
* Economic and financial costs and benefits

The development is expected to include engagement with the stakeholders that will be impacted in the delivery of the plan towards decarbonisation. This will ensure challenges can be raised and mitigated within the scenarios.

**The development of a roadmap to reduce and/or eliminate GB rail’s traction carbon emissions**

After assessing the economic case from the identified scenarios, a roadmap and key milestones will be established.

Delivery particulars

Elements of the research project are expected to support the industry response to the ministerial call for a decarbonisation plan for rail, therefore it is imperative that the timeframes are aligned with the broader industry response. To support this, the expected date of release of ITT is **6 April 2018,** with tenders to be received by **27 April 2018**. The expected date of project completion is **December 2018**, and suppliers will be expected to demonstrate in their tenders how interim deliverable will be prepared to support industry response to the minister by **August 2018.**

The indicative budget for is £100-150k.

Supplier Day

We welcome suppliers’ thoughts on developing objectives of the project to contribute to achieving a successful outcome.

While there is expected to be some discussion of the approach to be taken in delivery of the objectives, the tender is expected to be left open for the supplier to define the approach to meeting those objectives.

During the supplier day, we aim to discuss the timeframes and refine the scope further. We would like suppliers to consider:

* Is the industry currently on the right track towards decarbonisation and what are your initial thoughts on optimising the transition?
* What key sources of information will be required? Where are there likely to be barriers in gaining access to this information?
* What key stakeholders should be involved throughout the project?
* Considering the wider project responsibilities and Jo Johnson’s Autumn deadline, what structure of the project would best support a successful outcome?
* What are the key skillsets needed for each of the key project activities (scenario building and economic modelling)?
* What are the key objectives of the work that should be included in the specification?

Expressions of interest

We are inviting suppliers to provide a short summary of their capabilities and experience in this subject area to help us deliver a successful project. Taking into account the envisaged scope of work, we would be pleased to receive a summary response (Max 4 pages) by **20 March 2018** setting out your interest.

Based on experience of similar projects, we would welcome any additional thoughts based on the questions outlined for the supplier day (no page limit).

1. https://www.gov.uk/government/speeches/lets-raise-our-ambitions-for-a-cleaner-greener-railway [↑](#footnote-ref-1)