



CONTENTS

1.	PURPOSE.....	2
2.	BACKGROUND TO THE CONTRACTING AUTHORITY.....	2
3.	BACKGROUND TO REQUIREMENT/OVERVIEW OF REQUIREMENT	2
4.	DEFINITIONS.....	3
5.	SCOPE OF REQUIREMENT.....	4
6.	THE REQUIREMENT.....	4
7.	KEY MILESTONES	6
8.	AUTHORITY'S RESPONSIBILITIES.....	7
9.	REPORTING.....	7
10.	VOLUMES.....	7
11.	CONTINUOUS IMPROVEMENT	7
12.	SUSTAINABILITY	8
13.	QUALITY.....	8
14.	PRICE	8
15.	STAFF AND CUSTOMER SERVICE.....	8
16.	SERVICE LEVELS AND PERFORMANCE	8
17.	SECURITY REQUIREMENTS.....	10
18.	INTELLECTUAL PROPERTY RIGHTS (IPR)	10
19.	PAYMENT.....	10
20.	ADDITIONAL INFORMATION.....	10
21.	LOCATION.....	10



1. PURPOSE

- 1.1 The purpose of this requirement is to deliver a report that recommends a set of suitable quantitative performance measures for each outcome dimension identified (service quality, cost, resilience and environment), which can be applied to each National Infrastructure Commission (“NIC”) sector (energy, transport, water and wastewater, digital communications, solid waste and flood risk management) and across sectors in a consistent way.

2. BACKGROUND TO THE CONTRACTING AUTHORITY

- 2.1 The Authority (Her Majesty's Treasury) is the Government's economic and finance ministry, maintaining control over public spending, setting the direction of the UK's economic policy and working to achieve strong and sustainable economic growth.

3. BACKGROUND TO REQUIREMENT/OVERVIEW OF REQUIREMENT

- 3.1 The NIC is an independent body, which has been tasked by the Government to provide expert, independent advice on pressing infrastructure issues and to produce an in-depth assessment of the UK's major infrastructure needs out to 2050.
- 3.2 While Her Majesty's Treasury is the Contracting Authority, all analysis and outputs in the Requirement are commissioned by, and will be delivered by the Potential Provider exclusively to, the NIC. Analysis and outputs must not be shared or discussed with any party other than the NIC, without explicit NIC consent.
- 3.3 The NIC was set up on 5 October 2015 and the Government has outlined the high-level objectives of the NIC as follows:
- Foster long-term and sustainable economic growth across all regions of the UK.
 - Improve the UK's international competitiveness.
 - Improve the quality of life for those living in the UK.
- 3.4 Each Parliament, the NIC will deliver a study on the UK's long-term strategic infrastructure needs and produce recommendations to address those needs across the economic infrastructure sectors including transport, energy, water and wastewater, digital communications, solid waste, flood risk management as well as considering their interdependencies and their interaction with the built environment.
- 3.5 This study is the National Infrastructure Assessment (NIA). The delivery of the NIA will be overseen by the NIC's commissioners, appointed by the Chancellor, who are able to commission research and call for evidence from public sector bodies and private sector and other third party experts.
- 3.6 The NIA will consist of two stages: Visions and Priorities, identifying the vision and long-term infrastructure needs to be published in mid-2017; and the National Infrastructure Assessment, a roadmap of recommendations including both on policy and infrastructure solutions to be published in mid-2018.



- 3.7 The NIC has commenced work on Visions and Priorities and has undertaken a NIA consultation in order to develop the best process and methodology of the assessment. The consultation has now closed.
- 3.8 Potential Providers should read both the NIC’s consultation on the NIA ([link](#)), as well as HM Treasury’s response to its consultation on NIC ([link](#)), in order to understand the broader context for this requirement and to inform their response.
- 3.9 For the NIC to be able to recommend policies that lead to improvements in the provision of infrastructure services in line with the high-level objectives outlined above, the NIA will need to develop an understanding of the current performance and shortcomings of the UK’s existing infrastructure assets as well as develop measures for evaluating the future performance of infrastructure assets and the services they provide.
- 3.10 Since the National Infrastructure Plan 2011 ([link](#)), the Infrastructure and Projects Authority (IPA) has presented performance indicators which can be used to assess the UK’s infrastructure over time with a view to identifying infrastructure improvements.
- 3.11 However, there are a number of issues with the current set of performance indicators:
- Some of the data sources used in previous versions are no longer available, which has led to inconsistencies from year to year.
 - The measures often only show performance relative to previous years, rather than with regard to a specific set of desired outcomes.
 - The measures do not take into account the economic or social requirements of infrastructure and the purpose of some of the measures is not clear.
 - The measures are only reported at national level and obscure issues at sub-national level.
 - The measures are not consistent across sectors.
- 3.12 As a result, the value of the current measures in informing strategic decision-making is limited and it is expected that the performance measures identified by the Potential Provider can overcome a number of the limitations presented above.
- 3.13 Potential Providers are also encouraged to consider work done in this area by covec and Beca for the National Infrastructure Unit, New Zealand ([link](#)), as well as the non-survey based indicators used by the World Economic Forum in its Global Competitiveness Report ([link](#)), which are relevant to this Requirement.

4. DEFINITIONS

Performance measure	A quantitative indicator which describes the performance of infrastructure services provided in a sector with regard to a specific desired outcome. A suitable performance measure will take on a different value to indicate a change in observed outcomes.
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KPI	A key performance indicator is a measurable value that demonstrates how effectively a company is achieving key business objectives.
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5. SCOPE OF REQUIREMENT

- 5.1 This procurement covers a number of distinct and yet related themes in the field of infrastructure performance measures. Please refer to Section 6 for detailed guidance on the scope of the requirement.
- 5.2 Potential Providers should note that data collection is not expected to be carried out and is out of scope of this requirement. However, the Potential Provider will be expected to consider whether data is publically available to construct particular measures or not.

6. THE REQUIREMENT

- 6.1 The report should identify a number of specific performance measures for each sector (energy, transport, water and wastewater, digital communications, solid waste and flood risk management), which will provide the most appropriate way of measuring performance against the following four desired outcomes, which are in line with the NIC’s high-level objectives described above:
 - World-class service quality.
 - Lowest cost for required performance in terms of service quality.
 - Resilient performance.
 - Protecting the environment and reducing climate change.
- 6.2 It is expected that the measure of service quality provides an indication of the extent to which the UK currently falls short on world-class standards of service for users and it should be possible, in principle, to calculate this measure for a range of countries (e.g. to provide international benchmarks). As a result, this measure would identify ways in which the UK’s international competitiveness as well as the quality of life of those living in the UK may be improved through improvements in infrastructure service quality.
- 6.3 In identifying a suitable measure, the Potential Provider should consider sector-specific characteristics (e.g. connectivity for transport), existing global safety and other standards as well as the geographic balance of provision of infrastructure services across the UK, amongst other things.
- 6.4 It is expected that the cost measure identified represent a unit cost for the provision of infrastructure services and takes into account any subsidies and/or taxes applied.
- 6.5 It is expected that in order to identify a suitable resilience measure, the Potential Provider will need to ascertain the optimal amount of spare capacity to sustain the level of required performance in normal circumstances as well as consider measures of the probability of failure under normal and extreme circumstances.



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- 6.6 It is worth noting that the measures for service quality and resilience may overlap to some extent in different sectors. For example, continuous availability is a key measure of service quality. There may also be tensions between different dimensions of quality, for example speed vs. safety. In considering the merits and drawbacks of different measures, it is expected that such tensions will be analysed and the relevant trade-offs identified and discussed in the report.
- 6.7 In identifying suitable measures related to the protection of the environment, it is expected that the targets set by Committee on Climate Change are taken into consideration.
- 6.8 The report will consider whether the data sources required to construct the performance measures are available and where data for a performance measure is currently not publically available, what the closest available approximation with existing data would be (second best option).
- 6.9 Measures will be considered suitable if they satisfy the following requirements:
- Easy to calculate (given data availability).
 - Easy to interpret and unambiguous.
 - Can be calculated at appropriate sub-national level, including cities as well as regions where appropriate.
 - Can be calculated in principle (given data availability) for a range of countries.
 - Providing meaningful feedback on progress towards the outcomes described above, i.e. outcome based.
- 6.10 All materials (including research, calculations and models) used to generate the analysis should be made available to the NIC for future use.
- 6.11 At the start of the project, the NIC would expect to hold an inception/scoping meeting with the successful Potential Provider, and for a short inception report to then be provided for agreement, which clarifies the approach to be taken, along with a plan setting out key milestones and dates for deliverables, risks and how these will be managed etc. before proceeding to carry out the analysis. The Authority expects the Potential Provider to work closely with the NIC, including through weekly meetings and other communication.
- 6.12 The NIC may procure studies on other infrastructure themes. If required by the NIC, the Potential Provider should work collaboratively with other third parties contracted by the NIC. That may include, but is not limited to sharing analysis and methodologies, and developing jointly agreed assessments and conclusions to support the overall findings of individually commissioned pieces of research.
- 6.13 The NIC can choose to provide relevant responses from the consultation and call for evidence, and other supporting documentation received from stakeholders. Given time constraints the NIC would not expect the Potential Provider to spend a significant
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amount of time meeting with or interviewing a wide range of stakeholders. The NIC will be undertaking a significant amount of engagement with key stakeholders and where appropriate will be able to provide analysis and views from those engagements.

- 6.14 Empirical data that is used should be derived from a broad range of credible sources with appropriate references and citations.
- 6.15 The Potential Provider should also be prepared to present any analysis and findings to technical and non-technical members of the NIC in a clear and concise fashion, to ensure these are fully understood.
- 6.16 The Potential Provider should submit a final report detailing analysis, findings and comments in a clear and concise fashion and reflecting any inputs and requests made by the NIC during the production phase by w/c 30 January 2017. The NIC intends to publish this report.
- 6.17 The final report is expected to contain three (3) sections:
- a section describing the performance measures identified for each outcome dimension and each sector,
 - a section explaining why the measures identified are suitable in measuring progress towards the desired outcomes,
 - and a section discussing whether data is available to construct the measures and, where data is not available, what alternative measure could be constructed with available data.
- 6.18 As part of NIC’s quality assurance process, the NIC can and will likely choose to have a peer review of the output to be conducted by a third party or NIC’s expert advisory panels. It is required that the Potential Provider will need to work proactively and collaboratively with the NIC to consider any reasonable comments and to incorporate them into their work and output accordingly.

7. KEY MILESTONES

- 7.1 The Potential Provider should note the following project milestones that the Authority will measure the quality of delivery against:

Milestone	Description	Timeframe
1	Project kick-off meeting, to agree the milestones for the project and precise coverage of the report.	Estimate w/c 31 st October 2016 Within week 1 of Contract Award
2	Update meeting / phone call on the project including any early findings.	Weekly
3	First draft of the report, which should cover, but is not limited to:	



	<p>the translation of the desired outcomes into specific quantitative measures for each sector</p> <p>a mapping of existing KPIs/performance measures for each sector and allocation to the relevant outcome dimension.</p>	w/c 5 th December 2016
4	<p>Second draft of the report taking on board the Authority’s comments and which should cover, but is not limited to:</p> <p>an analysis of the methodologies used in deriving existing KPIs,</p> <p>the comparability of measures identified and where key data is missing.</p>	w/c 9 th January 2016
5	<p>Final version report of the report suitable for publication including recommendations for the set of performance measures to be adopted and consisting of three sections as described above.</p>	w/c 30 th January 2017

7.2 The above timetable assumes the Contract will be awarded by w/c 31st October. As such Milestone 1 subject to change and is dependent upon key gateway points being met in terms of receiving information from the customer and obtaining all required approvals.

8. AUTHORITY’S RESPONSIBILITIES

8.1 The NIC will share pertinent information received through relevant stakeholders and introduce the Potential Provider to relevant stakeholders, which can offer valuable advice on the requirement.

9. REPORTING

9.1 As set out in Section 7 (Key Milestones). Additionally, the Potential Provider will be expected to update the Commission on project progress on at least a weekly basis via a meeting or phone call, including to flag any issues or early findings.

10. VOLUMES

10.1 This is a substantial piece of work – the expectation is that the key outputs and related materials will be both extensive and of publishable standard.

11. CONTINUOUS IMPROVEMENT

11.1 The Potential Provider will be expected to give due consideration to the way in which the required Services are to be delivered throughout the Contract duration and can be continually improved.

11.2 Changes to the way in which the Services are to be delivered must be brought to the NIC’s attention and agreed prior to any changes being implemented.



12. SUSTAINABILITY

12.1 N/A

13. QUALITY

13.1 The NIC will be looking to cite the findings from this report in its 'Vision and Priorities' publication in mid-2017. The report should therefore be to a publishable standard, with all assumptions and caveats clearly highlighted and referenced appropriately.

13.2 The source of data and assumptions, and advice on its robustness, should be clearly set out, and it will need to be demonstrated how the findings have been suitably quality assured, including through peer review and audit.

14. PRICE

14.1 Prices are to be submitted via the e-Sourcing Suite excluding VAT. Please note that Appendix E is not used for the requirement and there is a specific Price questionnaire.

14.2 Bids are expected to range between £50,000 and £95,000.

14.3 Prices should be inclusive of expenses and exclusive of VAT.

15. STAFF AND CUSTOMER SERVICE

15.1 The NIC requires the Potential Provider to provide a sufficient level of resource throughout the duration of the NIA performance measures Contract in order to consistently deliver a quality service to all Parties.

15.2 Potential Provider's staff assigned to the NIA performance measures Contract shall have the relevant qualifications and experience to deliver the Contract. The NIC does not prescribe any single set of minimum requirements in terms of skills or qualifications, but the Potential Provider must demonstrate as part of its bid that its delivery team contains staff with sufficient expertise and skills.

15.3 The Potential Provider shall ensure that staff understand the NIC's vision and objectives and will provide excellent customer service to the NIC throughout the duration of the Contract.

16. SERVICE LEVELS AND PERFORMANCE

16.1 The Authority will measure the quality of the Potential Provider's delivery by:

KPI/SLA	Service Area	KPI/SLA description	Target
#1	Agreed approach	An inception report to be provided, and agreed by NIC, clarifying the approach to be taken, along with a plan setting out key milestones and dates for deliverables, risks and how these will be managed.	Estimate w/c 31 st October 2016 Or within 1 week of contract award



#2	Key outputs delivered in draft	<p>A first draft of the report covering</p> <ul style="list-style-type: none"> translation of the desired outcomes into specific quantitative measures for each sector mapping of existing KPIs/performance measures for each sector allocation of existing performance measures to the relevant outcome dimension 	By w/c 5 th Dec 2016
#3	Key outputs delivered in draft	<p>A second draft of the report covering</p> <ul style="list-style-type: none"> the NIC's comments on the first draft analysis of the methodologies used in deriving existing KPIs analysis of the comparability of metrics identified analysis where key data is missing 	By w/c 9 th Jan 2016
#4	Key outputs in final, publishable form	<p>A final report that presents</p> <ul style="list-style-type: none"> the performance measures identified explains why the measures identified are ideal in measuring the desired outcomes identifies whether data is available to construct the measures and where data is not available, what alternative measure could be constructed with available data 	By w/c 30 th Jan 2016



16.2 The above timetable assumes the Contract will be awarded by w/c 31st October. As such KPI/SLA1 is subject to change and is dependent upon key gateway points being met in terms of receiving information from the customer and obtaining all required approvals.

17. SECURITY REQUIREMENTS

17.1 Due care must be taken by the Potential Provider to protect the confidentiality of all analysis and outputs (including in development and draft phases) relating to this requirement, to avoid pre-empting the NIC's placement of the final report in the public domain.

18. INTELLECTUAL PROPERTY RIGHTS (IPR)

18.1 All analysis (including any calculations, models and draft reports) used to generate the outputs should be provided to the NIC for future use. This analysis, and the interim and final reports, will be the property of the NIC. The successful provider must not disclose the report (either in part or in full) to any third parties prior to publication by the NIC, unless the NIC gives express consent to do so.

19. PAYMENT

19.1 Payment can only be made following satisfactory and timely delivery of pre-agreed certified products and deliverables. Payment will be made in arrears, subject to invoice(s) being submitted for work carried out.

19.2 Before payment can be considered, invoice(s) must include a detailed elemental breakdown of work completed and the associated costs.

20. ADDITIONAL INFORMATION

20.1 The Potential Provider should demonstrate that they are open to working collaboratively with other suppliers, contracted by the NIC in order to deliver related pieces of analysis.

21. LOCATION

21.1 The location of the Services will be carried out at the offices of the Potential Provider. However, frequent meetings will need to take place with the National Infrastructure Commission at the Potential Provider's offices, or at the NIC's offices in the Eastcheap Court 11 Philpot Lane, London EC3M 8UD and meeting spaces at 1 Horse Guard Road, London SW1A 2HQ.