**Specification for Mapping climate risks to the UK’s overseas trade footprint**

Tender Reference Number: RM2/0122

**Specification of Requirements**

Invitation to Tender for **Mapping climate risks to the UK’s overseas trade footprint**

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Deadline for Tender Responses: 1 pm on Friday 11th February

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1. **Background**

**The Climate Change Committee**

The Climate Change Committee (CCC) was set up as part of the Climate Change Act. The CCC is an independent body that advises both on reducing emissions in the UK and adapting to the climate changes in the UK.

The Committee has recently provided its advice to the UK Government on the risks and opportunities facing the UK from current and future climate change as required under the Climate Change Act as part of the third Climate Change Risk Assessment – this was summarised in its Independent Assessment of UK Climate Risk which was published in summer 2021.

The CCC’s full range of past reports are available here: <http://www.theccc.org.uk/reports/>.

**Supply Chain Disruption as a key risk to the UK**

The CCC’s Independent Assessment of UK Climate Risk identifies a large number of risks to the UK for which there is a good case for doing more to address these risks over the coming five years as part of the UK Government’s next National Adaptation Programme for England.

These risks include those from changes in the UK’s weather and climate, and also changes from weather and climate overseas that have knock-on impacts on the UK from through global interconnectivity. One of the most significant mechanisms by which the UK is exposed to global climate risks is through international trade.

The CCC’s 2021 progress report for England highlighted scored the planning for supply chain interruptions as medium, but the risk management in this area as low. Increasing the level of adaptation action within these areas, in particular with regard to supply chain risks that sit outside of the UK, can be supported by a more in-depth understanding of the sectors and geographies the UK is exposed to along its supply chains coupled together with the types of weather and climate risks that those regions face today and in the future.

1. **Aims and objectives**

The aim of this project is to intersect datasets of UK trade with up-to-date assessments of global climate risk to better identify the types of weather and climate risks, and their locations, which the UK is most exposed to through international supply chains.

The project aims to bring up-to-date and extend [this piece of previous work](https://www.theccc.org.uk/publication/estimating-global-value-chain-impacts-associated-with-uk-consumption-patterns/) by the University of Leeds produced for the CCC in 2014.

This project will feed into the CCC’s wider adaptation work programme and in particular ongoing work around the actions that companies and Government can take to strengthen their resilience to overseas climate impacts.

**3. Detailed methodology**

**Task 1:** Mapping UK trade relationships

* This task should use datasets that represent the UK’s international trade relationships and the latest understanding of global climate risks.
* A mapping of the UK’s trade relationships should be undertaken – this could be based on [ONS/National Accounts trade datasets](https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/bulletins/uktrade/february2021#uk-trade-data) or similar datasets (e.g. [GTAP](https://www.gtap.agecon.purdue.edu/databases/default.asp)) compiled by other organisations.
* This mapping should be undertaken using as recent trade data as possible to ensure that it is as representative as possible of current UK trade activities.
* Trade relationships should be summarised by monetary variables (e.g. $) to allow comparisons across sectors and to provide a cross-economy picture. We would also be interested in supplementary assessments looking at particular subsets of critical goods/services (e.g. minerals, metals, etc) that could be summarised in terms of physical units (if and where relevant and useful)
* The mapping should ideally cover direct imports and exports from UK companies and consumers and the indirect imports and exports along the full length of supply chain (e.g. through [input-output modelling](https://en.wikipedia.org/wiki/Input%E2%80%93output_model))
* The output for this task should be a mapping (provided in a spreadsheet) breaking down the UK’s trade relationships into a manageable number (e.g. 10-15) of economic sectors/final product groupings and geographical region combinations. This categorisation should be informed by the regional groupings that climate hazards and risk information are available for (Task 2), with as high a level of disaggregation as possible desired.

**Task 2:** Mapping global climate risks

* This task should build a mapping of global climate impacts disaggregated to regional groupings relevant for assessing risks to economic sectors in the UK’s supply chains. This should be summarised both in terms of an accessible spreadsheet and in terms of graphical representations of how risks vary around the globe.
* Several climate risks that can have impacts on economic activity (e.g. flooding, heatwave related impacts etc) should be considered and evaluated for each region – a clear mapping should be proposed between these risks and which groupings of economic sectors from Task 1 they could impact upon. Climate risks assessed in this task should be chosen to ensure that there is at least one (ideally more) relevant risk for each for the region & economic groupings from Task 1.
* We support proposals that aim to leverage existing climate risks tools to conduct this analysis.
* Ideally this assessment of climate risks should utilise/build on the latest understanding of global hazards and impacts summarised in the recent [IPCC WG1 Atlas](https://interactive-atlas.ipcc.ch/) and the forthcoming IPCC WG2 report (published in February 2022)
* Risks should be summarised for different future warming levels (e.g. 1.5C, 2C, 3C, 4C etc) wherever possible
* The magnitude of risk should be evaluated using a simplified system (e.g. RAG-rating style marking) that will allow a comparison of risk levels across different types of risks and different regions.

**Task 3:**Integration of UK trade and climate hazard information

* The task should bring together the mappings conducted in Task 1 and 2 to evaluate the types of risks that UK trade is exposed to.
* A clear summary of the main climate risks that each sector/region grouping in the UK’s trade footprint is exposed to should be provided by integrating the quantitative mapping from task 1 with the qualitative assessment of regional climate risks in task 2.
* A narrative summary of the results should be constructed to describe the overall picture of risk to UK supply chains – summary statistics (e.g. percentage of UK overseas trade exposed to a high-level of disruption from extreme heat at 2C of warming) should be presented as part of this.
* These results should be presented clearly with the use of visuals where appropriate. An example of the type of visuals we would anticipate can be found in the figure below (from the [CCC’s 2014 progress report](https://www.theccc.org.uk/publication/managing-climate-risks-to-well-being-and-the-economy-asc-progress-report-2014/)).



# Outputs Required

The outputs of the work should include:

* **A report,** setting out the scope of work, assumptions, methodology and results.
* **Spreadsheets** (summarising the quantitative mapping in each of the three tasks) containing the results of the assessment of climate risks across the UK’s trade footprint.

Where excel workbooks are used these should be shared, fully unlocked, allowing future capability to update assumptions.

We envisage that bidders may need to make use of pre-existing knowledge (e.g. [datasets on UK trade](https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/bulletins/uktrade/february2021#uk-trade-data), [IPCC assessments](https://interactive-atlas.ipcc.ch/) of climate risks, [past CCC progress reports](https://www.theccc.org.uk/publication/managing-climate-risks-to-well-being-and-the-economy-asc-progress-report-2014/) and [commissioned work](https://www.theccc.org.uk/publication/estimating-global-value-chain-impacts-associated-with-uk-consumption-patterns/)) to enable delivery and welcome this. However, this should not limit the transparency of approaches used in this project and all outputs should be provided in a publishable format. In the event of any limitations on sharing (e.g. in wider sharing beyond the CCC), these should be specified as part of the tender.

In addition to the above, we also expect interim deliverables to be required, including slide packs for the purposes of milestone and/or steering group meetings.

# Ownership and Publication

The key deliverables will be handed over to the CCC, who may choose to publish these as supporting evidence on their website. Spreadsheets should be open access and unrestricted, to enable full QA of results and assumptions.

# Quality Assurance

This project must comply with the ‘CCC – Quality Assurance of Evidence and Analysis’ guidance[[1]](#footnote-1) and bidders must set out their approach to quality assurance in their response to this ITT.

All research tasks and modelling must be quality assured and documented. Contractors should:

* Include a quality assurance (QA) plan that they will apply to all of the research tasks and modelling,
* Specify who will take lead responsibility for ensuring quality assurance and ensure that this responsibility rests with an individual not directly involved in the research, analysis or model development,
* Provide QA log to demonstrate the QA undertaken, including who undertook the QA and the scope, type and level of QA that has been undertaken (e.g. a log entry only stating ‘the data was checked’ will not be sufficient),
* Allow for a meeting with CCC staff to run through QA performed.

Sign-off for the quality assurance must be done by someone of sufficient seniority within the contractor organisation to be able take responsibility for the work done. Acceptance of the work by the CCC will take this into consideration. The CCC reserves the right to refuse to sign off outputs which do not meet the required standard specified in this invitation to tender.

The successful bidder will be responsible for any work supplied by sub-contractors and should therefore provide assurance that all work in the contract is undertaken in accordance with the quality assurance expectation agreed at the beginning of the project.

# Timetable

The proposed timetable for the project is set out in the following table. Ability to start work early rapidly is highly desirable for this project.

|  |  |
| --- | --- |
| **Date** | **Action** |
| W/c 21st Feb | Kick-off meeting |
| Before end of March | Interim presentation/report on progress across all three tasks |
| End of April | Latest date for delivery of final report & analytical outputs  |

The CCC is willing to be flexible with timelines and will consider alternative timetable proposals – however being able to complete a substantial fraction of the work before the end of March will be a necessary factor.

In addition to the formal reporting points, the CCC would expect to have regular scheduled discussions (weekly meetings or calls) to ensure the work is progressing as expected. It is expected a more detailed timeline would be proposed in bids documents and agreed with the CCC at the kick-off meeting.

# Challenges

The specific challenges that the CCC envisage with this project include:

* Establishing an analytical methodology and approach which enables high quality insights to be delivered in short timeframes
* Ensuring that the project findings can be integrated effectively and coherently with the previous work in this area

Bids should set out how these risks will be managed alongside any other risks and challenges to successfully undertaking this work.

The successful contractor will be expected to identify one named point of contract through whom all enquiries can be filtered. A CCC project manager will be assigned to the project and will be the central point of contact.

#  Skills and experience

CCC would like you to demonstrate that you have the experience and capabilities to undertake the project. Your tender response should include a summary of each proposed team members experience and capabilities. A solid understanding of the types of financial models/products investigated as part of the research will be an important feature of the team’s capability.

Contractors should propose named members of the project team, and include the tasks and responsibilities of each team member. Desirable skills across the team would be expertise in trade, economics and climate science. This should be clearly linked to the work programme, indicating the grade/ seniority of staff and number of days allocated to specific tasks.

Contractors should identify the individual(s) who will be responsible for managing the project.

#  Consortium Bids

In the case of a consortium tender, only one submission covering all of the partners is required but consortia are advised to make clear the proposed role that each partner will play in performing the contract as per the requirements of the technical specification. We expect the bidder to indicate who in the consortium will be the lead contact for this project, and the organisation and governance associated with the consortia.

Contractors must provide details as to how they will manage any sub-contractors and what percentage of the tendered activity (in terms of monetary value) will be sub-contracted.

If a consortium is not proposing to form a corporate entity, full details of alternative proposed arrangements should be provided. However, please note CCC reserves the right to require a successful consortium to form a single legal entity in accordance with Regulation 28 of the Public Contracts Regulations 2006.

CCC recognises that arrangements in relation to consortia may (within limits) be subject to future change. Potential Providers should therefore respond in the light of the arrangements as currently envisaged. Potential Providers are reminded that any future proposed change in relation to consortia must be notified to CCC so that it can make a further assessment by applying the selection criteria to the new information provided.

#  Budget

The budget for this project between £30,000 - £40,000 excluding VAT.

Contractors should provide a full and detailed breakdown of costs (including options where appropriate). This should include staff (and day rate) allocated to specific tasks.

Cost will be a criterion against which bids which will be assessed.

Payments will be linked to delivery of key milestones. The indicative milestones and phasing of payments can be adjusted and agreed with the contractor and Project Manager. Please advise in your tender response how this breakdown reflects your usual payment processes:

In submitting full tenders, contractors confirm in writing that the price offered will be held for a minimum of 60 calendar days from the date of submission. Any payment conditions applicable to the prime contractor must also be replicated with sub-contractors.

The Committee on Climate Change aims to pay all correctly submitted invoices as soon as possible with a target of 10 days from the date of receipt and within 30 days at the latest in line with standard terms and conditions of contract.

#  Evaluation of Tenders

Contractors are invited to submit full tenders of no more than 20 pages, excluding declarations and CV’s. Tenders will be evaluated by at least three CCC staff.

CCC will select the bidder that scores highest against the criteria and weighting listed below, see the ITT for further information.

**EVALUATION CRITERIA AND SCORING METHODOLOGY**

|  |  |  |
| --- | --- | --- |
| Criterion | Description | Weighting |
| 1 | RELEVANT EXPERIENCE / DEMONSTRATION OF CAPABILITY | 15% |
| 2 | MANAGING YOUR RELATIONSHIP WITH THE CCC | 5% |
| 3 | QUALITY ASSURING THE SERVICES YOU PROVIDE | 10% |
| 4 | MANAGEMENT STRUCTURE | 5% |
| 5 | PROJECT TEAM – SKILLS AND KNOWLEDGE | 20% |
| 6 | METHOD, ABILITY AND TECHNICAL CAPACITY  | 30% |
| 7 | UNDERSTANDING OF REQUIREMENTS | 5% |
| 8 | RISK AND CHALLENGES | 10% |
|  |  |  |
|  | 100% |

**Scoring Method**

Tenders will be scored against each of the criteria above, according to the extent to which they meet the requirements of the tender. The meaning of each score is outlined in the table below.

The total score will be calculated by applying the weighting set against each criterion, outlined above; the maximum number of marks possible will be 100. Should any contractor score 1 in any of the criteria, they will be excluded from the tender competition.

|  |  |
| --- | --- |
| **Score** | **Description** |
| 1 | Not Satisfactory: Proposal contains significant shortcomings and does not meet the required standard |
| 2 | Partially Satisfactory: Proposal partially meets the required standard, with one or more moderate weaknesses or gaps  |
| 3 | Satisfactory: Proposal mostly meets the required standard, with one or more minor weaknesses or gaps. |
| 4 | Good: Proposal meets the required standard, with moderate levels of assurance |
| 5 | Excellent: Proposal fully meets the required standard with high levels of assurance |

**Scoring for Pricing Evaluation**

Price will be marked using proportionate pricing. Please see the example below.

Marking proportionate to the lowest price.

Price will be scored as set out below.

There will be a maximum of e.g. 20 marks

The lowest priced bid will receive the full 20 marks, all other bids will then be marked as set out below.

Proportionate Pricing scoring example

If 20% = 20 marks

|  |  |  |
| --- | --- | --- |
| Supplier | Price | Marks |
| 1 (lowest bid) | £30,000 | 20 |
| 2 | £35,000 | 30/35 \* 20 = 17.1 |
| 3 | £40,000 | 40/40 \* 20 = 15 |

**Structure of Tenders**

Contractors are strongly advised to structure their tender submissions to cover each of the criteria above and supply a price schedule specifying the daily rates (ex-VAT) you will charge for each level of your staff.

**Evaluation for Interviews, if held**

CCC reserves the right to award the contract based on applicants’ written evaluation only if one candidate emerges from the evaluation stage as significantly stronger than the others.

Should interviews go ahead, CCC will shortlist the top three suppliers with the highest marks from the written proposals. Interviews are provisionally expected to be held in the week commencing 14th February. If this date changes, CCC will notify applicants.

The areas to be covered in the interview, and markings allocated to each topic area will be sent to the shortlisted supplier prior to interview.

Further details of interviews will be sent to successful applicants on selection.

**Feedback**

Feedback will be given in the unsuccessful letters or emails.

1. <https://www.theccc.org.uk/wp-content/uploads/2013/02/Quality-Assurance-interim-guidance.pdf> [↑](#footnote-ref-1)