# Specification for “Developing trajectories for forward indicators of the UK’s heat pump supply chains”

Tender Reference Number: MS/0222

# Specification of Requirements

Invitation to Tender for “Developing trajectories for forward indicators of the UK’s heat pump supply chains”

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Deadline for Tender Responses: 23:59 on 24 February 2022.

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# Preamble

The Climate Change Committee (CCC) is an independent, statutory body established under the Climate Change Act 2008. Our purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change.

# Background

The transition to Net Zero requires changes that go beyond the deployment-related metrics we have tended to track in our progress monitoring to date.[[1]](#footnote-1) We are seeking to broaden our assessment of real-world progress, including underlying enablers of policy delivery such as supply chain and skills developments, public attitudes, corporate commitments, funding and finance and governance.

The Government’s Heat and Buildings Strategy[[2]](#footnote-2) and the Net Zero Strategy[[3]](#footnote-3) outline a policy framework that aims to substantially reduce emissions from buildings over the next 15 years:

* The Government has adopted a clear direction for heat decarbonisation which confronts the key challenge of this decade: to grow demand for low carbon heat (both heat pumps and district heating) and scale up supply chains while developing hydrogen as an option. This will be done alongside nationwide programmes to improve the energy efficiency of buildings.
* The Government’s intention is to use a market-based approach to drive the adoption of low carbon heat. This requires obligations on suppliers, manufacturers and property owners, backed up with funding in key areas. These ambitions are supported by a suite of new policies that aim to enable the transition, providing detail on skills, finance, innovation, and standards.

Under the Government’s market-based approach, heat pump installations should scale up by 2028, but wouldn’t be expected to take off before the new mechanism comes in, in 2024. Continuing to focus our progress monitoring on tracking heat pump deployment wouldn’t tell us how the market is developing ahead of scale up. ‘Forward’ indicators of preparedness, or enablers of delivery, need to be tracked to provide a more complete picture of underlying progress.

# Aims and Objectives

The aim of this project is to develop forward indicators of the UK’s heat pump supply chains, and trajectories for those indicators, to track progress in building up the UK heat pump market. Where:

* ‘Indicators’ are the metrics to track – e.g. number of heat pumps being installed
* ‘Trajectories’ are forward targets for indicators – e.g. the pathway for the number of heat pumps that need to be installed each year in order to achieve decarbonisation targets

The starting point for informing the set of indicators and their trajectories will be the CCC’s pathways for the Sixth Carbon Budget and the Government’s Net Zero Strategy, which have underlying assumptions on the number of required heat pump installations across different parts of the housing stock.

While these pathways tell us how many heat pumps need to be installed at each point in time, they are not sufficient to track progress in developing the market. The implications of these heat pump deployment pathways should be extended to ‘forward’ indicators of progress. We would like the following elements of the heat pump supply chains to be incorporated into the analysis:

1. **Manufacturers.** Issues to consider should include, but not be limited to:
   * New manufacturing facilities being planned, constructed and starting to produce heat pumps and related products
   * New routes being established to purchase heat pumps from outside the UK
   * Any important bottlenecks within the heat pump supply chain that need to be resolved (e.g. anything equivalent to computer chips for EVs)
   * Implications for indicator trajectories if the UK had zero net imports/exports of heat pumps
2. **Suppliers / sellers.** Issues to consider should include, but not be limited to:
   * Greater engagement and outreach from potential sellers of heat pumps in the residential market – energy companies, boiler/heat pump manufacturers, installers and gas engineers, developers/construction firms
   * We expect this element of the supply chain to be more difficult to quantify in meaningful ways, and encourage creative solutions to doing so
3. **Installers.** Issues to consider should include, but not be limited to:
   * Pipelines and pathways for training installers, and other skilled trades (e.g. retrofit coordinators) covered by the Heat and Buildings Strategy and analysis undertaken by the Construction Industry Training Board[[4]](#footnote-4)
   * How many people need to be trained each year in each skilled trade

# Methodology

The main output of this project is a set of forward indicators (including their trajectories) for tracking progress in heat pump supply chain development, which the CCC can report against on an annual basis.

Indicators should be developed for each of the three supply chain elements set out above: i) manufacturers, ii) suppliers / sellers, iii) installers. For each of these elements, the key tasks of this project are to:

1. Produce a detailed description of each indicator, rationale for choosing it and approach to estimating it. This should include a short description of how this approach could eventually be extended to apply to other pathways (e.g. other CCC scenarios from the Sixth Carbon Budget, other Government pathways).
2. Produce a simple spreadsheet which sets out the proposed set of indicators and a clear process for calculating trajectories, including all sources with release dates, making clear any assumptions/uncertainties.
3. Develop trajectories that start from where the market was in 2021, as far as that can be determined, running out to 2035 at least (the point at which gas boilers will have been phased out).
4. Identify potential data sources that can be used to track progress against the trajectories developed (or other proxies that could be used), being mindful of, but not constrained by, available data. If the necessary data isn’t available, an outcome of this work may be to recommend that Government start to collect the relevant data. Any decisions on this will be taken alongside the CCC.
5. Optional task – extending indicators to include heat networks, hydrogen-ready boilers or energy efficiency retrofit installation

This should be developed through a combination of reviewing existing literature and research, sourcing and analysing other data relevant to addressing the questions outlined, and engaging with a range of external stakeholders (with interest/expertise on the issues at hand and/or who are undertaking related analysis).

# Outputs Required

The outputs required from the project include:

Report explaining methodology and assumptions for developing forward indicators and their trajectories, including how the approach may be extended to apply to different decarbonisation pathways

* Spreadsheets with forward indicator trajectories

List of proposed data sources for tracking progress against the trajectories (or methods for calculating this, if more than a single source is required)

# 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. All spreadsheets should be open access and unrestricted, to enable full QA of results and assumptions.

# Quality Assurance

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

* Include a quality assurance (QA) plan that they will apply to the modelling.
* Specify who will take lead responsibility for ensuring quality assurance. This responsibility should rest with an individual not directly involved in the research or analysis.
* Provide a QA log to demonstrate the QA undertaken, which must identify who undertook the QA and the scope, type, and level of QA that has been undertaken.

Sign-off for the quality assurance must be done by someone of sufficient seniority within the contractor organisation to be able to 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 tenderer will be responsible for any work supplied by sub-contractors and should therefore provide assurance that all work in the contact is undertaken in accordance with the quality assurance expectation agreed at the beginning of the project.

The CCC expects that:

* Analysis must be delivered in a simple, transparent Excel spreadsheet or set of spreadsheets, where key assumptions (agreed with the CCC) are clearly stated. All assumptions and figures should be adequately referenced, and include any supporting workings. Any such spreadsheets will be the property of the CCC.
* Existing analysis and published research should be reviewed and considered in developing the scenarios and approaches to be analysed within this assignment.

# Timetable

The proposed timetable for the project is set out in the following table:

|  |  |
| --- | --- |
| Date | **Action/deliverable** |
| w/c 23 Feb | Deadline for submitting bids |
| w/c 28 Feb | Interviews (if needed) |
| w/c 7 Mar | Kick off meeting |
| w/c 25 March | Delivery of draft indicators and trajectories |
| w/c 11 April | Delivery of draft report |
| w/c 25 April | Delivery of final report, indicators and trajectories |

The CCC is willing to be flexible with timelines and will consider alternative timetable proposals.

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.

# Challenges

Tenderers should highlight any challenges or risks that they envisage in delivering all the outputs of the project, whether in terms of scope of the work, resources, or timelines. Alternative suggestions will be considered if the risks are such that the project is unlikely to be able to be delivered in its current form.

# Working Arrangements

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

The 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 member’s experience and capabilities.

Contractors should propose named members of the project team, and include the tasks and responsibilities of each team member. 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 consortium.

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 that the 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.

The 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 the 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 is £33,000-£42,000 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, with 50% expected to be delivered this financial year (2021/22) and 50% the next financial year (2022/23). 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 CCC 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 35 pages, excluding declarations and CVs. Tenders will be evaluated by at least two CCC staff.

The 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 CABABILITY | 20% |
| 2 | MANAGING YOUR RELATIONSHIP WITH THE CCC | 10% |
| 3 | QUALITY ASSURING THE SERVICES YOU PROVIDE | 10% |
| 4 | MANAGEMENT STRUCTURE | 10% |
| 5 | PROJECT TEAM – SKILLS AND KNOWLEDGE | 20% |
| 6 | METHOD, ABILITY AND TECHNICAL CAPACITY | 10% |
| 7 | UNDERSTANDING OF REQUIREMENTS | 10% |
| 8 | RISK AND CHALLENGES | 10% |

#### 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.

Proportionate pricing scoring example

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

|  |  |  |
| --- | --- | --- |
| Supplier | **Price** | **Marks** |
| 1 (lowest bid) |  |  |
| 2 |  |  |
| 3 |  |  |

#### 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

The 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, the 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 beginning the []. If this date changes, the 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 suppliers 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/publication/2021-progress-report-to-parliament/ [↑](#footnote-ref-1)
2. https://www.gov.uk/government/publications/heat-and-buildings-strategy [↑](#footnote-ref-2)
3. https://www.gov.uk/government/publications/net-zero-strategy [↑](#footnote-ref-3)
4. https://www.citb.co.uk/media/kkpkwc42/building\_skills\_net\_zero\_full\_report.pdf [↑](#footnote-ref-4)