**Specification for the provision of research on competitiveness impacts of carbon policies on UK energy-intensive industrial sectors to 2030**

Tender Reference Number: TH/1016

**Specification of Requirements**

Invitation to Tender for research on competitiveness impacts of carbon policies on UK energy-intensive industrial sectors to 2030

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Deadline for Tender Responses: Noon, 14th November 2016

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# Preamble

The Committee on Climate Change (CCC) was set up as part of the Climate Change Act. CCC is an independent body tasked with providing advice to Government on climate change issues, and particularly the setting of carbon budgets, and the monitoring of progress towards meeting those budgets. CCC’s past reports are available here: <http://www.theccc.org.uk/reports/>.

# Background

*The Committee’s advice on competitiveness*

The Committee on Climate Change (CCC) was established under the Climate Change Act to advise Government on a range of issues, including setting legally binding carbon budgets for consecutive five year periods, beginning in 2008, and a target for emissions reductions in 2050. The Climate Change Act requires the CCC to take into account:

*‘economic circumstances, and in particular the likely impact of the decision on the economy and the competitiveness of particular sectors of the economy’*

CCC has recognised that for a small number of energy-intensive industries, the impact on total costs resulting from low-carbon policies could be significantly higher than other sectors. This is particularly the case for industries where energy costs are a higher share of total costs, where electricity supplied via the grid is an important fuel source (e.g. electric-arc steelmaking), and where there is strong international competition from countries without low-carbon policy costs or where industry is shielded from these costs.

In our 2013 report on managing competitiveness risks of carbon budgets, the CCC noted that there are potential competitiveness risks for electro-intensive industries that are also subject to international competition, where the UK is decarbonising faster than other countries and thus face higher relative energy costs, and/or where competitor countries are actively distributing these costs away from their electro-intensive industries. These firms could see a squeeze on profits which could potentially drive output and jobs overseas if support is not available.

The CCC have highlighted that it is important to ensure that increased energy costs resulting from low-carbon policies do not result in offshoring of UK industry. Output moving abroad would not have any benefits for the UK’s overall carbon footprint (i.e. including consumption emissions) and global emission reductions, and would not be desirable from a wider economic perspective.

The Committee’s assessment in 2013 concluded that there has been no significant industry relocation as a result of low-carbon policies to date, but noted the potential risk of offshoring in the future and the need for policies to address this.

The Government followed through on this commitment with a package worth £500 million to 2020, covering the impacts of EU ETS, Carbon Price Support, and support for low-carbon electricity generation on electricity prices, and increased relief from the Climate Change Levy.

In 2014, the Committee updated its assessment of the impact of low-carbon policies on energy price and bills. The CCC will be updating its Energy Prices & Bills assessment in early 2017. Along with this it will update its assessment of the competitiveness implications of climate change policies and energy prices on the UK manufacturing sectors.[[1]](#footnote-1)

# Aims and Objectives

The project has three main aims:

1. **Estimate the contributing factors of current and future electricity prices faced by UK firms and key international competitors.** Building on existing analysis (e.g. CCC analysis of UK prices and ICF’s[[2]](#footnote-2) assessment of international prices or other relevant sources),
   1. Estimate the 2015 electricity prices faced by manufacturing sectors in UK vs key international competitors. Include break down electricity prices into constituent parts for comparison, e.g. wholesale costs, transmission and distribution, government policy costs etc, and take into account any exemption/compensations schemes. In addition, specify the extent that UK situation has changed in the first half of 2016 – specifically with respect to compensation schemes.
   2. Project, based on current understanding of future energy costs and carbon policies, the constituent parts of electricity prices that manufacturing sector may face in UK and key international countries in 2020 and 2030.
2. **Assess the direct impact of the EU Emission Trading System (ETS) on UK firms.** Assess the direct impact that the EU ETS has had on UK manufacturing sectors costs, including impact of free allocation and build-up of surplus allowances. Assess what the impact of the ETS may be to 2030 given current proposals including the European Commission’s, ENVI and UK-France, and assuming the UK remains within the ETS. Provide comparative analysis of the results with those published by other market analysis, eg. Sandbag and Climate Strategies.
3. **Develop deep-dive narratives around certain sectors that have experienced significant contractions in production.** Drawing on existing analysis, assess the state of the UK markets, causes of these contractions, impact on investment etc – and specifically how much of this is due to market forces and what can be attributable to climate change policies.

# The CCC will be analysing internally the potential for energy efficiency to reduce costs for UK firms, and so we will not require this to be covered by the requested research.

# Methodology

The CCC envisage that the work will involve the following tasks:

**Task 1. Estimate the contributing factors of current and future electricity prices faced by UK firms and key international competitors.**

The aim of this task is to be able to compare the component parts of electricity prices faced by UK firms to competitors overseas in 2015, and through to 2020 & 2030.

This will build on previous work conducted by ICF for the CCC.[[3]](#footnote-3)

This task can be split into three parts.

1. Assess how to compare grid supplied electricity prices faced by UK firms and key international competitors, allowing for any compensation schemes.

The contractor will first be asked to develop a plan on how to compare electricity prices faced between UK and overseas firms.

The CCC will want to compare the component parts of UK electricity prices against relevant countries, specifically those associated with sectors potentially ‘at risk’. Previous analysis by the Carbon Trust[[4]](#footnote-4) and other sources suggest these include iron and steel*,* cement and chemicals. The contractor should review and suggest sectors for which more detailed analysis is required, or what level of sectoral disaggregation is required to conduct the analysis.

The task is complicated by the fact that firms/sectors may pay different electricity prices depending on their size, government policy costs, and that the existence and nature of exemption and compensation schemes vary across and within sectors[[5]](#footnote-5). The consultants are encouraged to consider how to present comparisons of the actual electricity price faced by sectors between countries given these component parts.

Previous exercises have found difficulty when comparing price data internationally as the definition and methodology of data collection vary. The CCC encourage that contractors identify any challenges they expect and suggest how they would address these.

The CCC will assess and break down the 2015 UK electricity price and 2020/2030 projections into component parts (wholesale cost, transmission & distribution, individual low-carbon policy costs, and compensation/exemptions, see 2014 Energy Prices and Bills report for previous analysis published).[[6]](#footnote-6) As part of this plan the contractor will quickly review previous published CCC analysis, discuss with the CCC if any additional analysis is required for individual sectors for the comparison and how this should be done.

The CCC encourage consultants to consider what we are trying to compare and how best this would be presented clearly as a basis to inform the analytical methodology proposed.

1. Estimate the electricity prices faced by UK firms and key international competitors in 2015, broken down into component parts

The contractor will be asked to estimate the electricity price faced by key international competitors in 2015 and compare these to UK electricity prices based on CCC analysis.

The contractor will be expected to break down the electricity price faced by wholesale cost, transmission & distribution, and individual low-carbon policy costs (inc. compensation/exemptions) where possible.

The contractor will also specify the extent that UK situation has changed in 2016 – specifically with respect to compensation schemes – and how this may affect electricity prices faced by UK firms.

The contractor will produce a tool that the CCC will be able to update with published data, which produces like-for-like international comparisons.

1. Estimate possible electricity prices faced by UK firms and key international competitors to 2020 and 2030, broken down into component parts

The contractor will be asked to project the electricity price likely to be faced by key international competitors in 2020 and 2030, and compare these to UK electricity prices based on CCC projection analysis as agreed in task 1a.

The contractor will be asked to assess the possible electricity prices faced by key international competitor countries through assessing their future carbon mitigation targets, taking into account INDC’s from the Paris agreement. Consultants should develop robust pathways for electricity prices, which could include scenarios.

These future electricity prices should be broken down into their key components as with the 2015 analysis.

Any data issues and uncertainties should be highlighted and dealt with appropriately, particularly where large uncertainty exists. In particular, where simplifying assumptions need to be made, there will need to be some assessment of how sensitive the conclusions of the analysis are to these.

The output of task 1 is a write up of method, sources and results, including tables/charts showing UK electricity costs faced in 2015, 2020 and 2030 alongside those of key international competitors, by sector and with scenarios where appropriate. This should be complemented by a discussion and justification of the choice of sectors, competitors and projections. Consultants should identify key uncertainties and how these might impact on the analysis and conclusions.

**Task 2. Assess the direct impact of the EU Emission Trading System (ETS) on UK firms.**

The aim of this task is to understand the direct impact that the EU ETS has had on UK manufacturing sector and may have in future. This does not include analysis on the EU ETS impact on electricity costs which will be covered by task 1.

The contractor will be required to update analysis previous undertaken by Cambridge Econometrics and develop further where needed:[[7]](#footnote-7)

* Updated assessment of the impact EU ETS has had on UK manufacturing competitiveness – including explanation and quantification of free-allocation and build-up of surplus allowances by sector – and current costs EU ETS imposes on UK manufacturing sectors,
* Updated assessment of the impact of the ETS on UK manufacturing sectors to 2020 and 2030, given where sectors are today with surplus allowances and current Phase IV proposals including the European Commission’s, ENVI and UK-France, and assuming the UK remains within the ETS. Provide comparative analysis of the results with those published by other market analysis, eg. Sandbag and Climate Strategies. Also, specify what are possible scenarios and areas of uncertainty.

The output of task 2 is an assessment that the CCC can draw out clear and robust conclusions of the competitiveness implications of the EU ETS on UK sectors through to 2020 and 2030. This will include quantification on the under/over allocation of free allowances by sector.

**Task 3. Develop deep-dive narratives around certain sectors that have seen experienced significant contractions in production.**

The purpose of this task is to take a deeper look at up to three specific UK sectors that have seen a contraction in production. The CCC would like to understand within each of these ‘case studies’ the causal factors behind the falls in production and investment (where this can be quantified), and specially to what extent this can be attributable to electricity price differentials and climate change policies.

The CCC would like the contractors to focus on the steel, cement and aluminium sectors that have seen significant closures in the UK.

The CCC would like bids to specify the cost of conducting one, two or three deep dives. The CCC may want to extend this analysis to other sectors to be produced at later date, so the contractors should indicate how much an additional sector deep dive(s) would cost and suggest which sector(s) would be worth analysing at greater depth.

For each of these sectors chosen for deep-dives we would like contractors to:

* + Set out the context of the UK market (including recent closures, level of investment, trade intensity, import penetration),
  + Set out the context in the international market (including how change in UK production is similar/different from other relevant countries, global level of demand and any other changes in international market e.g capacity),
  + Importance of energy costs in these markets (e.g. vs operating costs/GVA, heavy electricity or gas consumer),
  + Examine to what extent climate change policies have had an impact on UK production/investment vs other government policies/market forces,
  + The outlook for these UK sectors (including taking into account results of tasks 1 and 2).

The output of task 3 will be a written assessment for each of these sectors that the CCC can draw clear conclusions on their international competitiveness, the impact of climate change policies and potential outlook.

# Outputs Required

The key deliverables for this project will be agreed at the project meeting but include a summary report, slides, supporting spreadsheets with clear references, calculations, and links where possible, to sources used for each statistic, and minutes from project 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 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 be responsible for quality assurance and ensure that this is done by individuals who were 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)

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.

For primary research, contractors should be willing to facilitate CCC research staff to attend interviews or listen in to telephone surveys as part of the quality assurance process.

# Timetable

The proposed timetable for the project is set out in the following table. The project is expected to kick off mid-November and finish in late January. The research will also be feeding into the main Energy Prices & Bills report which is expected to be signed off by the Committee on the 20th February 2017.

In addition to the formal reporting points, the CCC would expect to have regular scheduled discussions to ensure the work is progressing as expected.

|  |  |
| --- | --- |
| **Date** | **Action** |
| 14th November, Noon | Deadline for response to ITT |
| 18th November | Interviews |
| w/c 21st November | Kick-off meeting (identify key sources of information, agree methodology & timelines) |
| w/c 12th December | Interim meeting (present and discuss initial results and findings) |
| w/c 2nd January | Final project meeting (present and discuss results and findings) |
| w/c 9th January | Circulate full draft report |
| w/c 23rd January | Final report |

# Challenges

Contractors to consider challenges to the project, to include but not limited to: availability of information and data, uncertainty of future policy price impacts, attributing cause to changes in markets, and the capacity to complete tasks within timeframe given.

# 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

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.

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 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 is £50,000 to £80,000 excluding VAT.

Contractors should provide a full and detailed breakdown of costs by task and sub-task as presented here - 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 Department 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 50 pages, excluding declarations. 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.

If the bidder intends to submit a tender to an additional piece of work the CCC invited tenders on ‘*UK manufacturing opportunities of moving to a low-carbon economy’*, the contractors will have to detail how they have the capacity to complete both pieces of work within the timeline.

**EVALUATION CRITERIA AND SCORING METHODOLOGY**

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

**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 will be held on 18th November 2016. There is no flexibility in the date of the interviews. However, 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. By manufacturing this includes production of materials, goods, and refineries. [↑](#footnote-ref-1)
2. ICF (2012), *An international comparison of energy and climate change policies impacting energy intensive industries in selected countries*, report for the Department of Business Innovation and Skills. ICF (2013), *Assessment of Competitiveness Impacts of Carbon Budgets on Electro-intensive Sectors to 2030*, report for the Committee on Climate Change. [↑](#footnote-ref-2)
3. <https://www.theccc.org.uk/publication/carbon-footprint-and-competitiveness/> [↑](#footnote-ref-3)
4. Carbon Trust (2008) EU ETS impacts on profitability and trade [↑](#footnote-ref-4)
5. For example, some countries have flat compensation support schemes, others have tiered schemes. Some countries support levels are based on GVA, others not. [↑](#footnote-ref-5)
6. <https://www.theccc.org.uk/publication/energy-prices-and-bills-impacts-of-meeting-carbon-budgets-2014/> [↑](#footnote-ref-6)
7. Appendix 9 (not in contents table) - <https://www.theccc.org.uk/wp-content/uploads/2013/04/ICF-and-CE-2013-Assessment-of-Competitiveness-Impacts-of-Carbon-Budgets-on-Electro-intensive-Sectors-to-2030.pdf> [↑](#footnote-ref-7)