

## DPS FRAMEWORK SCHEDULE 4: LETTER OF APPOINTMENT AND CONTRACT TERMS

### Part 1: Letter of Appointment

Dear Sirs

#### Letter of Appointment

This letter of Appointment dated Monday 4<sup>th</sup> January 2021, is issued in accordance with the provisions of the DPS Agreement (RM6018) between CCS and the Supplier.

Capitalised terms and expressions used in this letter have the same meanings as in the Contract Terms unless the context otherwise requires.

Order Number:	CR20077
From:	<b>The Department for Business, Energy and Industrial Strategy (BEIS)</b> , 1 Victoria Street, London, SW1H 0ET ("Customer")
To:	<b>Market and Opinion Research International Limited</b> (trading as Ipsos MORI). 3 Thomas More St, St Katherines & Wapping, London, E1W 1YW ("Supplier")

Effective Date:	Monday 4th January 2021
Expiry Date:	Friday 29 <sup>th</sup> July 2022 Notice period for cancellation is 30 days.

Services required:	Set out in Section 2, Part B (Specification) of the DPS Agreement and refined by: · the Customer's Project Specification attached at Annex A and the Supplier's Proposal attached at Annex B;
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Key Individuals:	<div style="background-color: black; width: 100px; height: 15px;"></div> <div style="background-color: black; width: 200px; height: 15px;"></div> <div style="background-color: black; width: 130px; height: 15px;"></div> <div style="background-color: black; width: 230px; height: 15px;"></div>
[Guarantor(s)]	N/A

Contract Charges (including any applicable discount(s), but excluding VAT):	£254,500.00 ex VAT in alignment with Schedule 2 and Annex 1 of the CR20077 Contract Terms.
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Insurance Requirements	<p>Additional public liability insurance to cover all risks in the performance of the Contract, with a minimum limit of £5 million for each individual claim</p> <p>Additional employers' liability insurance with a minimum limit of £5 million indemnity</p> <p>Additional professional indemnity insurance adequate to cover all risks in the performance of the Contract with a minimum limit of indemnity of £2 million for each individual claim.</p>
Liability Requirements	<b>Suppliers limitation of Liability</b> (Clause 18.2 of the Contract Terms);
Customer billing address for invoicing:	<a href="mailto:finance@services.ukpbs.co.uk">finance@services.ukpbs.co.uk</a> or Billingham (UKPBS Queensway House, West Precinct, Billingham, TS23 2NF).

#### FORMATION OF CONTRACT

**BY SIGNING AND RETURNING THIS LETTER OF APPOINTMENT** (which may be done by electronic means) the Supplier agrees to enter a Contract with the Customer to provide the Services in accordance with the terms of this letter and the Contract Terms.

The Parties hereby acknowledge and agree that they have read this letter and the Contract Terms.

The Parties hereby acknowledge and agree that this Contract shall be formed when the Customer acknowledges (which may be done by electronic means) the receipt of the signed copy of this letter from the Supplier within two (2) Working Days from such receipt

For and on behalf of the Supplier:

For and on behalf of the Customer:



## ANNEX A

### Customer Project Specification

#### 1. Background

The Department for Business, Energy and Industrial Strategy's (BEIS) is responsible for business, industrial strategy, science, research and innovation, energy and clean growth, and climate change.

Initiated in 2015, BEIS' Energy Innovation Programme (EIP) seeks to reduce the UK's carbon emissions and the cost of decarbonisation, by accelerating the commercialisation of innovative clean energy technologies and processes into the 2020's and 2030s. The Programme, with a budget of £505m and completing in March 2021, consists of six themes, one of which focuses on investment (of around £100m) in industrial decarbonisation and carbon capture, use and storage (CCUS). This theme incorporates the three programmes under consideration here:

- The **Carbon Capture, Utilisation and Storage Innovation (CCUS-I)** programme – a national grant programme supporting innovation projects that can reduce the costs of CCUS and / or enable quicker, more widespread deployment of CCUS in the UK.
- The **Carbon Capture and Utilisation Demonstration (CCUD)** programme – a national grant programme supporting the design and construction of intermediate scale CCU demonstration projects on industrial sites that capture CO<sub>2</sub> for industrial applications.
- The **Accelerating CCS Technologies (ACT)** programme – a transnational initiative (initially supported as an Horizon 2020 ERA NET) that seeks to facilitate collaborative research, development, and demonstration projects that can accelerate CCUS deployment.

The programmes are being delivered in phases, where each phase funds a number of innovation projects that contribute to the objectives of the phase and programme. Figure 1 sets out this relationship:

Figure 1: Overview of programmes in scope

THEME	SICE CCS THEME									
PROGRAMME	Accelerating CCS Technologies			CCU Demonstration			CCUS Innovation			
PHASE	ACT 1 (ERANET)		ACT 2	ACT 3 ?	1. Scoping	2. FEED	3. Demo	2018 Call		
PROJECTS	A	B	...	A	...	A	...	A	...	A B ...

BEIS has commissioned, and is publishing as part of this invitation to tender (ITT), a scoping study for the evaluation, setting out greater detail about the policy background and the three programmes. This includes theories of change and progress-to-date. **This ITT should be read alongside the scoping study.**

This specification differs from the scoping study in some aspects. These aspects are presented in shaded text (as this text is).

A discussion of the anticipated and potential COVID-19 impacts on this project is included towards the end of this specification.

## 2. Aims and Objectives of the Project

The three CCUS programmes are evaluated to support policy development in several areas:

- Future innovation funding and state support, including identifying areas that may need additional support and the kind and size of effective state engagement in this area;
- The pathway to net zero, including understanding the viability, cost and requirements for low-carbon hydrogen production and the use of CCUS in industrial processes; and
- Decisions on an effective regulatory framework for CCUS technologies and markets.

In addition, the evaluation aims to:

- provide accountability for spending on innovation, identifying value for money achieved;
- improve innovation delivery through improvements to commissioning and management processes;
- generate descriptions of projects that provide case-related insights into mechanisms, barriers and drivers, as well as provide material for communicating effectively about the projects.

To do this, the objectives of the evaluation are to:

- Identify the overall benefits and impacts of the three programmes, at both programme level and across
- Assess the extent to which, how, and if not, why not, the programmes achieved their objectives. This will also include identifying whether the relevant policy teams' needs have been met by the programmes
- Assess the cost effectiveness of the programmes, and understanding issues associated with value for money
- Understand how effective and efficient the programmes' implementation has been. This will include assessing the effectiveness and efficiency of project management, procurement structures and internal governance
- Provide a case-study-based exploration of processes, barriers, successes and experiences for selected projects.

For this purpose, we seek to commission an evaluation that combines an **impact evaluation** (to assess programme achievements and value for money) with a **process evaluation** (to learn lessons about optimal programme design and delivery), and a **case study** approach, reporting at interim (June 2021) and final (June 2022) stages.

The evaluation should seek to answer the following six overarching research questions:

1. To what extent and how (and if not, why not) have the projects produced the outputs foreseen in the programme business cases and individual grant applications?
2. To what extent and how (and if not, why not) have the programmes contributed to altering perceptions of CCUS across relevant stakeholder groups (industry, policy, investors)?
3. To what extent and how (and if not, why not) have the programmes contributed to stimulating investment and deployment of CCUS?
4. To what extent and how (and if not, why not) are programmes on track to deliver intended future impacts (considering the assumptions, current situation, market barriers and failures as set out in the Theory of Change)?
5. What insights can be gained to inform the delivery processes of future (CCUS) programmes?

## 6. To what extent has design of the CCUS theme effectively supported the development of CCUS?

Note that these high-level research questions differ marginally from those presented in the scoping study, in that they place a greater emphasis on understanding why any deviations from the expected outputs, outcomes and impacts occurred.

The evaluation should assess each of the three programmes in its own right and draw on the findings of these assessments to provide accountability and learning across all three.

### 3. Suggested Methodology

The following sections set out our suggested approach to carrying out the required work. More detail is set out in the accompanying scoping study report.

Applicants are encouraged to propose alternative approaches and methodologies, where they believe these would better achieve our aims and objectives as set out above, or be more cost effective. Alternative suggestions should be justified sufficiently to allow assessment in regard to reliability and validity of the approach, and the costs relative to the proposed approach. Each bidder must only submit one final methodology, and must not submit a number of options. All bids must fit within our budget, timeline and output criteria, regardless of methodology proposed.

The first section gives an overview of our suggested research design, followed by a section on methodology.

#### 3.1 Research design

As set out in the scoping study report, we envisage an evaluation that uses:

- a **contribution analysis** approach to assess the extent to which, and how, and if not, why not, each (and all) of the programmes produced the outputs and outcomes envisaged.
- a **process evaluation** to assess how programmes were designed and delivered and how design and delivery can be improved.
- an **economic evaluation** to review the extent to which and how the programmes have addressed the barriers and market failures indicated in the business cases (and set out in the scoping study report), and give a high-level estimate of the costs and benefits of each of the programmes
- **case studies** to describe the largest and selected other projects, providing case-based insights into how projects developed and dealt with any encountered barriers.

The **contribution analysis** (CA) would triangulate evidence from a range of sources to support and challenge a detailed programme theory of change, to set out a reasonable narrative about the contribution the interventions have made to the expected outcomes. An outline theory of change is included in the scoping study, but it is expected that more detailed theories at programme level are developed as part of the evaluation.

The **process evaluation** would provide insight into how the implementation of CCUS programmes could be modified to optimise impacts, benefits and efficiency, including lessons learnt that can be applied to future innovation funding schemes and identifying whether the process was appropriate and proportionate. It specifically relates to addressing the fifth headline evaluation question ‘Q5 – what insights can be gained to inform the delivery processes of future (CCUS) programmes?’ and the sub-questions associated with this.

We envisage light-touch **economic evaluation** of the extent to which and how the programmes have addressed the barriers and market failures indicated in the business cases, and to estimate the costs and benefits of the CCUS programmes and thus represent value-for-money. The cost-benefit

analysis (CBA) will have to be conducted at the programme level, and include ex-ante projections of benefits beyond the timing of the evaluation.

**Case studies** aim to provide greater accountability for the largest projects, and qualitative insights through deep dives, exploring issues such as project complexity, issues faced or overcome, stakeholder variety and progress made. The case studies would go beyond highlighting the findings from covered projects and synthesise evidence gathered from several strands of quantitative and qualitative research.

We expect the evaluation to produce 7-8 case studies, including the two largest projects (the CCUD demonstrator and the CCUS-I infrastructure project) as well as additional projects to be decided in due course from the remainder of the portfolio.

## 3.2 Methodology

The proposed methodologies are set out in three phases: scoping, evidence collection, and analysis and synthesis. All methodologies are expected to contribute to all aspects of the research design / outputs. In addition, tasks from different stages (e.g. document review and interview preparation) may overlap or be carried out in the same activity, but are presented here as conceptually distinct.

### 3.2.1 Stage 1: scoping activities

Stage 1 prepares the evaluation, primarily through the development of a detailed theory of change (TOC). To enable the development of the TOC, the contractor must review a range of documents from programmes and projects.

#### 3.2.1.1 Familiarisation with programmes and projects through document review

A thorough review of current programme documentation and evidence developed to-date will allow the evaluation contractors to develop a comprehensive understanding of the CCUS programmes and assess where sufficient data already exists, avoiding a duplication of work. This should be done through a review the following documentation (plus any other relevant documentation identified):

- Business cases for each of the three programmes
- Project funding applications
- Change requests to contracts
- Progress updates and risk registers
- SICE KPI returns, expected to be available from August 2020
- Benefits maps, benefits management strategies and benefits realisation plans, insofar as they exist
- Any / all work commissioned by the programmes including technical baselines, literature reviews, surveys and evidence-to-design studies so far.

The following literature familiarisation is not included in the scoping study. We do not expect this work to take the form of a formal literature review or rapid evidence assessment.

In addition, we expect the contractor to familiarise themselves with, and produce a short summary of, the literature on CCUS, covering UK and, where relevant, EU-wide policies and policy trajectories (as published in English), the current state of technology and of the industry internationally and in the UK; and academic and non-academic knowledge and discourse on the cost, potential and use of CCUS. This will provide a baseline and context for understanding how the CCUS programmes have advanced current knowledge and practice. BEIS will assist with identifying relevant literature.

#### 3.2.1.2 Theory of change development and process mapping

The TOC forms the basis of the contribution analysis (CA), so it is vital that it is comprehensive enough to allow a CA to be carried out. We anticipate that the contractor builds on the TOC from

the scoping study, expanding the detail in the expected mechanisms, assumptions and risks for each programme and across all three, and expect the following activities:

- Scoping interviews should be conducted to aid programme understanding, to create a definition of programme success and to understand any risks and assumptions about the programme.
- A Theory of Change workshop with key stakeholders involved in the programmes, covering the three programmes separately and the overall approach, ensuring that the TOC identifies:
  - How the programmes are expected to work and what evidence there is to support this thinking
  - The outputs, outcomes and impact, explicitly tracing causal links between them
  - Non-linearity in the design
  - The risks, uncertainties and assumptions that affect progression along the theory
- Prior to the next stage, and after Theory of Change development, the following steps should be conducted to ensure a strong theory-based evaluation:
  - Develop clear hypotheses about how we envisage the programmes are having an impact, developed and agreed by the ICCUS steering group.
  - Outline the evidence we would expect to see to refute and strengthen the credibility of the hypotheses. This could involve developing alternative hypotheses. For example, unsuccessful funding applicants stating that a programme has impacted the development of CCUS technologies might constitute stronger evidence than a successful applicant making the same claim.
  - Map expected data onto the proposed Theory of Change and developing a clear data collection plan to ensure all questions are addressed and to systematically test the programme logic.
  - State the tests that will be used to scrutinise these causal claims and the quality of evidence you would expect to see.
  - Identify areas where evidence already exists in admin or scheme data to avoid duplication of work. This will also help to identify evidence gaps that will need to be addressed in the next stage.

### 3.2.2 Stage 2: evidence collection

Primary and secondary data will be used to address the evidence gaps identified in Stage 1.

#### 3.2.2.1 Secondary data and information

As set out in the scoping study report, secondary data will form an important part of the evidence to be assessed in this evaluation. This includes:

- the EIP-wide KPI returns, which are expected to be available from September 2020 for the 2020 and May 2021 for the final collection round
- project reports, produced as final outputs for all projects
- other data sources as set out, allowing assessment of market trends (e.g. Beauhurst, Crunchbase, Pitchbook, Prequin), patents filing (e.g. Patent Lens or PATSTAT), academic and non-academic publications (e.g. Gateway to Research) and media communications.

We expect the tender to indicate which of the data sources indicated in the scoping study the tenderer has access to and proposes using, although decisions on use may be revised after the completion of the TOC and related hypotheses. At this stage, we do not consider any of the

proposed non-free data sources essential to the evaluation, but are interested in the applicants' views and possibilities.

### 3.2.2.2 Techno-economic modelling

As indicated in the scoping study report, funded projects are expected to provide updates on their existing models of the levelised cost of electricity / hydrogen (LCOE/LCOH) with data from the outputs of their projects as part of final reporting, or develop LCOE calculations to demonstrate that their projects can reduce CCUS costs.

These outputs will be quality-assured by BEIS technical experts, and, within the limits of commercial sensitivity, will be shared with the evaluator. Unlike stated in the scoping report, we do not expect the evaluation contractor to carry out additional modelling on LCOE/LCOH. We do expect the evaluation contractor to summarise and interpret across the model results, cross-checking interpretations with BEIS technical experts.

As part of Project Completion and final reports, it is also anticipated that projects will prepare a document that identifies the carbon emissions reduction/savings that are anticipated. Again, BEIS technical experts will quality assure any calculations, and the evaluation contractor is expected to interpret results and triangulate this with views from stakeholders.

### 3.2.2.3 Interviews, surveys and workshops

Set out in detail in the scoping study report and summarised below is the proposed approach to gathering data from key stakeholders using face-to-face or telephone interviews and surveys. A BEIS-endorsed CCUS-themed consultation workshop may also be considered an appropriate (alternative) method of gaining a range of insights from a group of stakeholders (e.g. from industry).

Most stakeholders will be able to provide insights into, and material for, several evaluation questions and outputs. We look to the tenderer to review and propose the best use of resources.

We expect proposals for interviews to take account of the advantages and disadvantages of face-to-face vs. telephone interviewing, but also consider the potential limitations due to COVID-19 restrictions.

Figure 2 Key stakeholder groups to be consulted

Stakeholder group	Description	Method	Target Number	
			Interim Evaluation	Final Evaluation
Programme management / delivery	2-3 programme owners / managers for each of the 3 programmes, plus 2-3 strategic and delivery focused leads for the BEIS CCUS theme. The scoping interviewees for the current study provide an initial list of key targets. <i>BEIS can provide contract details.</i>	F2F / telephone Interviews	5 - 10	10
Project coordinators	All UK project leads should be consulted for each of the three programmes. The final number of projects from recent calls is still to be clarified, but is likely to total between 25 and 35 by the time of the evaluation. <i>BEIS can provide contract details.</i>	F2F / Telephone Interviews	25 - 35	25-35
Project partners	A lighter-touch consultation of all (non-lead) UK project partners,	Surveys	50-100	50-100



	across all UK-led projects. The final number of projects and partners is not yet known, but is expected to be in the range 50-100. <i>BEIS can provide contact details to project coordinators. Other project partner details will have to be obtained from coordinators.</i>			
Policy makers	Individuals with BEIS policy teams and the CCC with an interest in CCUS and the outputs of the three programmes (e.g. from the Clean Energy, Industrial Energy and Energy Transformation Directorates). The scoping interviewees for the current study provide an initial list of key targets. <i>BEIS can provide contact details.</i>	Telephone Interviews	5 - 10	10 – 15
Wider industry	Industry players, including potential supply chain and potential carbon capture sites <i>BEIS can provide some contact details but would look to the applicant to supplement that list.</i>	Online surveys	10 – 20	10 – 20
Unsuccessful applicants	Lead partners from consortia that bid unsuccessfully to one of the three programmes. <i>BEIS can arrange access.</i>	Online surveys	20	20
Other	Other individuals and groups identified during the study e.g. from private finance, sector bodies. <i>BEIS can provide some contact details, but would look to the applicant to supplement that list.</i>	Telephone Interviews	5	5 – 10

### 3.2.3 Stage 3: Analysis and synthesis

The core part of the analysis is the delivery of the contribution analysis, in order to provide a reasonable narrative of the impact of the group of programmes, and the barriers encountered. In addition, a modest economic evaluation should assess the costs and benefits of the programmes.

#### 3.2.3.1 Contribution analysis

A synthesis of evidence collected across documents, interviews and surveys will collate the data and help understand the overarching story and impact of each, and all, of the CCUS programmes. It will be at this stage that the Contribution Analysis will be conducted. The evaluators should go back to the original Theory of Change and understand whether the evidence collected fits with the framework, and revise and strengthen this if necessary. This should involve assembling and assessing the contribution story and assessing the evidence collected against the causal statements and alternative hypotheses made in the scoping stage to make a judgement about causal claims. This should include a consideration of how the CCUS programmes have added to the wider BEIS approach to CCUS policy.

The contractor should also propose a method to assess the robustness of the data. The robustness of the evidence should be considered in the synthesis.

### 3.2.3.2 Economic evaluation

A modest economic evaluation should be conducted that focuses on the two key aspects described below. BEIS has included detail on this aspect of the evaluation in the ITT to allow bidders to suggest an appropriate methodology. However, it is important to note that the focus of this evaluation will largely be on process and impact aspects. We expect that up to 10% of the budget will be allocated to the economic evaluation.

The first aspect of the economic evaluation (barriers in the economic case) is not described as such in the scoping study report but is implicit in the research questions and TOC, and will implicitly be addressed through the contribution analysis. We specify it here explicitly because we would like the evaluation reporting to reflect on it explicitly.

#### How CCUS programmes addressed the barriers in the economic case

One aim of the economic evaluation is to understand to what extent and how the CCUS programmes have addressed the barriers and market failures set out in the programmes' business cases and described in Chapter 2.1 (rationale for public intervention) of the scoping study report.

Gathering evidence to understand whether these barriers and failures have been overcome as the CCUS programmes intended will be done mostly through gathering views of stakeholders across the programmes as well as a review of market information. This should consider the extent to which the Theory of Change has been realised, which would involve both considering whether the CCUS programmes have been successful in the wider context, and whether they have had a perceivable impact on the wider industry.

#### Cost-benefit analysis

A proportionate cost-benefit analysis should be conducted to understand whether the programmes represented value-for-money, attributing a monetary value on the impact and cost of the CCUS programmes. As the three CCUS programmes have been commissioned separately, CBA will be conducted at the individual programme level rather than aggregating results of the three programmes into a single CBA.

The costs and benefits expected to be included in the assessments are set out in the scoping study report. These should be monetised as far as possible, but for impacts that cannot be readily monetised qualitative approaches should be taken. Only those costs and benefits that can be quantified will be included in the cost-benefit analysis. We do not envisage any new data collection for the economic evaluation, it should use existing data and data collected through the other workstreams.

The NAO<sup>1</sup> approach of the 3Es (economy, efficiency and effectiveness) should be used as an overarching framework for the cost-benefit analysis:

- Economy: minimising the cost of resources used or required.
- Efficiency: the relationship between the output from goods or services and the resources to produce them.
- Effectiveness: the relationship between the intended and actual results of public spending.

It is expected that this analysis is conducted by an economist and aligns with the principles of the HM Treasury Green and Magenta books. The assessment should aim to estimate a benefit-cost ratio (BCR), the net present value (NPV) and payback periods.

<sup>1</sup> NAO guidance found here: <https://www.nao.org.uk/successful-commissioning/general-principles/value-for-money/assessing-value-for-money/>

Outputs will be a cost-benefit analysis, spreadsheet and a written discussion as part of the interim and final reporting.

### 3.2.3.3 Case studies

We anticipate that there will be synergies between data collection for the general evaluation and that for the case studies, although we do not anticipate that the case studies cover all research questions of the general evaluation. In particular, we do not expect case studies to explore attribution or value for money.

It is anticipated case studies will involve:

- Desk review of all relevant project documentation
- Context and literature review, to develop understanding of the technology that forms the focus of the case
- No less than five interviews per case study (included in the programme of interviews detailed above). It may be useful to consider interviewing the lead partner of the consortium, junior partners or supply chain organisations, monitoring officers and prospective customers to provide a complete picture of the project.
- Analysis of relevant project quantitative data (described above and in the scoping study report)

## 3.3 The impact of COVID-19

COVID-19 and the related restrictions have had impacts on projects funded through the CCUS programmes. These impacts differ, from very slight to temporary work stoppage, and are in some cases ongoing. We anticipate COVID-19 to impact the evaluation in three ways:

- Delays in projects, so that the anticipated project end date of no later than March 2021 is moved, by up to 9 months
- Difficulties in using face-to-face methods for primary data collection, particularly focus groups, but also face-to-face interviews
- Difficulties in disentangling the impact of programmes and projects from the impact of COVID-19.

We would like suppliers to address these challenges in the tender, and in particular consider what risk mitigation strategies may be best suited to dealing with the practicalities of the COVID-19 impacts.

## 4. Deliverables

This chapter details the outputs and quality assurance required.

### 4.1 Main outputs

The evaluation is expected to produce outputs at two main points:

- At interim stage, following the completion of the programmes in March 2021 and reporting in June 2021; and
- At final stage, following a one-year follow-up, reporting in June 2022.

Outputs at each stage is expected to include reports for publication, shorter communication materials for internal consumption (assumed at this stage to consist of a slide deck) and a presentation to policy stakeholders at BEIS. The reports at each stage are expected to include:

- A main report on the impact, process and economic evaluation findings to date
- A case study report

- A technical report

The main evaluation report is expected to address each programme separately and highlight project findings where relevant. It is then expected to draw conclusions from findings across projects and programmes. At interim stage the report is expected to be up to 50 pages in length, at final report stage up to 80 pages. The report must include an executive summary and a summary page for each programme.

The evaluation is expected to report on all research questions at both reporting points, but place greater emphasis according to the expected progress of the evaluation at each stage, i.e. the interim report is expected to report in greater detail on the process evaluation (evaluation questions 5 and 6), while the final report would place greater emphasis on the impact and economic evaluation (evaluation questions 1-4).

The case study report should be provided separately to improve its communicability. It is envisaged that each case will take between 5 and 15 pages.

#### 4.2 Additional and process outputs

Every 6 months the contractor is expected to attend a 15-minute slot at, and provide a written update for, the Industry and CCUS theme steering group meeting. The update should include a progress report against the plan, an updated risk register, an overview of key findings to-date (no more than one page A4), and a six-month forward look. The contractor should assume that every second meeting will be attended virtually.

As an additional final output we require a slide-pack and presentation for each the interim and final report. We expect each of the presentations to last approximately 45 minutes, and slide-packs to contain an appropriate level of detail for this length of presentation.

All quantitative raw data should be sent to BEIS, if possible in anonymised form. We intend to publicly archive our data; however, the feasibility of doing so will be addressed during the project.

#### 4.3 Quality assurance

To assure the quality of data collection, analysis and outputs produced, the contractor/s must:

- Ensure that quality assurance is done by individuals who were not directly involved in the research, analysis or model development
- Specify who will be responsible for quality assurance before it comes to BEIS

Quality assurance must be signed off by someone of sufficient seniority within the contractor organisation to be able take responsibility for the work carried out. BEIS reserves the right to refuse to sign off outputs which do not meet the required standard specified in this Invitation to Tender. The Contractor must state within the proposal how all work on the project will be quality assured.

The Contractor will be expected to produce high quality reports that meet the following criteria:

General:

- Answer the research questions clearly, in plain English
- Clearly structured so that information presented in each section of each report is clear
- Connections between sections are clear
- Executive summaries of no more than two sides that set out the findings clearly and their relevance to BEIS policies
- All sections have clear introductions and conclusions (including findings being written concisely upfront)

- Methodology clearly explained so others could repeat the work in future.

#### Use of good quality English:

- Thoroughly proof-read and peer reviewed for writing quality
- No jargon is used, and all terms are defined and referenced clearly
- All acronyms are written out in full the first time that they are mentioned in each section of each report
- No grammar and phrasing errors
- No typos / typographical errors present
- Concise and non-wordy sentences and paragraphs
- Concise reports that are not too long and do not have vast annexes

#### Visualisations:

- All visualisations are labelled
- All visualisation follow accessibility requirements
- All axes are labelled, including with appropriate units
- Clear and appropriate use of visualisations (large enough size, data can be read clearly without reference to the raw data, and there are not too many visualisations presented at once)
- All visualisations are clearly explained and discussed
- A range of different types of visualisations are used to provide more interesting and innovative ways of presenting the results

Where complex or innovative methods are proposed, bidders should specify how additional quality assurance will be provided. Where necessary, this should include the use of external experts.

Outputs will be subject to BEIS internal approvals, the more substantive the output the longer the approval time required. Both published and other reports will require three rounds of comments, which should be factored into the timelines. BEIS may wish to appoint an external peer reviewer to provide a high-level peer review.

The successful bidder will be responsible for any work supplied by sub-contractors.

BEIS reserves the right to request an audit of projects against the BEIS Code of Practice for Research and the commitments made in the tender documents and subsequent contract.

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

Other useful sources of guidance and advice that will help bids and the resulting work be of the highest quality include:

- The [Government Social Research Code](#), in particular those that relate to GSR Products:
- [UK Statistics Authority Code of Practice](#)/ or an equivalent standard.
- [The Magenta Book](#), Government guidance on policy evaluation and analysis.
- Supplementary Guidance on the Quality in Policy Impact Evaluations
- [Quality in Qualitative Evaluation: A Framework for assessing research evidence](#) provides a Framework for appraising the quality of qualitative evaluations.

- [The Green Book](#): appraisal and evaluation in central government.

## ANNEX B

### Supplier Proposal

#### PROJ1.1

##### A. The aim and purpose of the evaluation

The aim of the evaluation is to identify and assess the overall benefits of the three CCUS programmes, including effectiveness, cost-effectiveness (value for money) and impact. The purpose is to increase Government understanding of the effects of R&D spending in the energy innovation sector, to support ongoing innovation programme delivery, provide project-specific insights (case studies) into the drivers of impact, and to provide accountability on Government innovation spending.

##### B. Our overall approach

The assignment will combine an **impact** with a **process evaluation**. The table below provides a high-level overview of the evaluation scope and the primary questions to be covered. In alignment with the existing CCUS Evaluation Plan, we intend to ground the evaluation in a **Contribution Analysis** (CA) framework. CA, when applied correctly, provides a highly robust framework for impact evaluation insofar as it a) enables detailed development of underpinning causal pathways and associated assumptions and evidence bases (taking alternative pathways and contextual factors into account); and b) offers an iterative approach in which theories are tested and refined at multiple stages. The Scoping Study for this evaluation suggested that an approach to CA supplemented by Process Tracing be pursued for the evaluation. We agree that Process Tracing is a high quality method for assessing impact, and also for process evaluation, and we have applied it in recent evaluations (e.g. evaluation of the NAMA Facility). However, we also consider that the systematic and detailed CA approach developed by Delehais and Touslemonde (2012)<sup>1</sup> would work well for this evaluation. If applying this approach, the evaluation team would develop (for each programme, and the portfolio) a set of ‘contribution claims’ and then list these within an ‘Evidence Analysis Database’ where each casual claim would be reviewed against different sets of data and systematically categorised as to whether they support / refute the casual claim and the strength of evidence (see above for an extract from Delehais and Touslemonde’s paper).

**Table 1.** A record in the Evidence Analysis Database (example).

Label	Supported managers report a high increase in exports
Statement	In a questionnaire survey, managers report that the total annual sales changed by an average of 32% in the period covered by the European support. Exports increased by 61%.
Source	Survey contracted out by programme managers, and answered by almost all supported SMEs.
Type of source	Primary / Secondary
Causal link	Arrow 6–9 (SMEs that have been successfully assisted improve their competitiveness)
Confirming/refuting the logic model	Confirming / Refuting
Type of causal mechanism	Intended contribution / Other contribution / Condition-to-intended contribution / Intended condition-to-other-contribution / Feedback*
Strength of evidence	Strong - Rather strong - Rather Weak - Weak*

\*these two lines are further explained in the next section.

Another advantage of using CA as an evaluation framework is that the different strands of research and analytical work can draw upon other evaluation techniques where proportionate, feasible (given data constraints) and relevant. For example, we consider that Qualitative Comparative Analysis (**QCA**) may facilitate the development of our response to EQ3. Similarly, quantitative techniques such as **CBA** and **techno-economic modelling** will feed into EQ3. Where possible, we will seek to define a counterfactual, to enable comparison of impact indicators over time. Further, the **case-based approach** required by the ITT is also highly appropriate as an analytical approach to conducting the exploratory and explanatory research required by each of the EQs. Finally, to facilitate evidence-building within our theory-based approach, we will conduct **longitudinal research** gathering data from stakeholders just after programme close (in Spring 2021) and

then again one year later. This will allow us to assess the extent to which attitudes and behaviours have changed as the mid- to longer-term impacts materialise (or not).

Finally, this evaluation is also a **process** – as well as impact – **evaluation**. A key part – particularly of the first and second stages of the evaluation (immediately before and just after programme closure) will be to assess the extent to which the programmes have produced outputs (EQ1) and how programme design and delivery has supported this (EQ5). based upon data collection and analysis undertaken for the scoping study and supplemented with information gathered through programme documentation analysis and initial interviews with BEIS, the evaluation team will **map out the main processes** underpinning the design, management, delivery and governance of the CCUS programmes. This will enable us to build a process evaluation framework that will denote evaluation questions and sub- questions and align these to specific indicators we expect to measure. The process evaluation will involve assessing and understanding strategy development, the application and selection procedure, monitoring and reporting, support and guidance, decision-making, internal and external communications and coordination. As part of Task 2, we will set out our initial understanding and a set of hypotheses to be further tested through consultation with key stakeholders and results (output) analysis.

## B. Evaluation scope and deviations from the Scoping Study

The evaluation will focus on the three CCUS programmes, specific projects they have supported, the industry, research, policymaker and other actors the programmes expect to influence and on specific outputs, outcomes and impacts, including research and innovation impacts, growth and investment, cost reductions and attitudes to the technologies. The evaluation will answer the six high-level EQs outlined in p9 of the ITT.

Based on our review of the scoping Evaluation Plan and internal methodological discussions our proposed approach differs from that outlined in the scoping Evaluation Plan as follows.

Deviations from the Scoping Study	Rationale
Our approach to addressing EQ3 involves assessing the feasibility of a quantitative counterfactual analysis using data from across all three Programmes and conducting a quantitative impact analysis if it represents value for money. As a minimum our approach to addressing EQ3 will involve QCA.	While Contribution Analysis represents the most appropriate approach to addressing most of the EQs, the quantitative and consistent nature of EQ3 outcomes (R&D expenditure, investment raising, capital investment) provide scope to conduct a more targeted comparative analysis.
Our method for gathering data from unsuccessful applicants, non-lead Project Partners and Wider Industry Representatives involves a single online survey conducted at Interim and Final Evaluation Stages.	The considerable overlap between non-lead Project Partners and Wider Industry Representatives, administration channels and our recent experience of the efficacy of online versus telephone surveys suggests that a single online survey at two timepoints represents the best approach to data collection from these stakeholder groups and therefore best value for money.
Our proposed CBA would use additional project implementation costs (net of deadweight). Similarly, rollout costs should be net of deadweight and displacement, and work is required to establish an appropriate counterfactual.	While the economic analysis is intended to be <i>light touch</i> it must still be Green Book compliant and therefore consider costs and benefits net of deadweight and displacement.

## C. Methodological Challenges

The proposed evaluation approach and methodology set out within the Evaluation Plan Report is clearly designed to address a number of methodological challenges associated with the EIP study. Two key overarching issues concern a) the significant and unequal disruption caused by the pandemic, and b) the credibility with which the evaluation can attribute outcomes and impacts to the EIP. This is due to:

**Complexity and coherence at overall portfolio level:** the three programmes all have very different and distinct aims and objectives which presents a challenge when it comes to aggregating evidence at portfolio-level. Our proposed approach addresses this challenge by investing in further development of the Theories of Change and Logic Models



2. **Attribution and additionality:** the three programmes are being delivered in real-world environments where it is impossible to credibly control for exogenous factors (particularly within the prevailing socio-economic environment). Further, the complementary and joined-up nature of energy funding (e.g. the UKRI Energy Research Programme, Industrial Strategy Challenge Funding, Industrial Fuel Switching and Energy Entrepreneurs) makes it difficult to robustly attribute outcomes and impacts uniquely to EIP funding and activities.

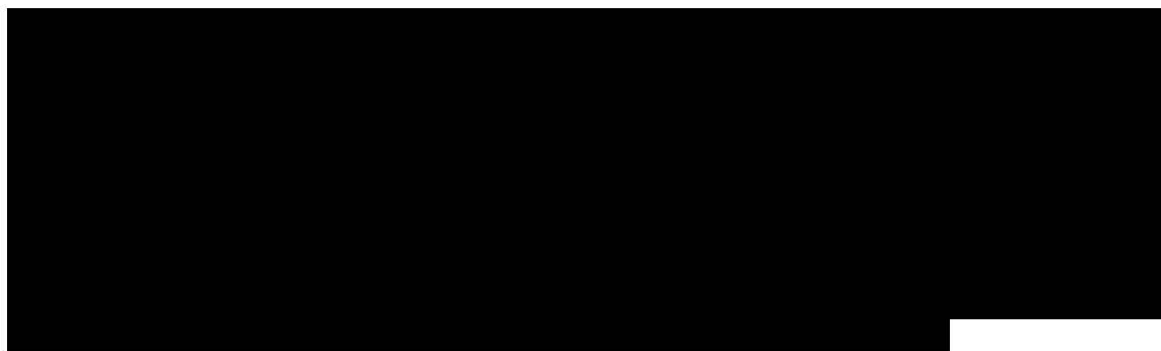
In addition to these overarching methodological challenges, each of the programmes present their own **unique methodological challenges**. For example, the CCUS-I Programme funds one research facility amongst a number of other discreet innovation projects – the PACT2 facility therefore requires separate evaluation treatment to the rest of the CCUS-I Programme. The CCUS-D Programme has funded two FEED studies and one demonstrator site and small numbers will present evaluation challenges. Similarly, small project numbers present challenges regarding the evaluation of the CCUS-ACT programme. Effective application of CA will assist with but cannot fully address these attribution and additionality challenges. Therefore, in addition, we will bolster evidence that supports attribution and additionality using QCA where outputs and outcomes permit (referenced above). Further, the **case-based approach** will allow us to assess impact and contribution in more granular detail through the analysis of project-level theories of change. By drawing upon the evaluation team's strong track record in evaluating these programmes, and our panel of academic and industry experts, we will develop realistic hypotheses to be tested through the evaluation research. Finally, there are lower level challenges associated with **collection of robust outcome and impact data**. Our experience of recent energy programme evaluations is that data collated via Researchfish has been a valuable source for evidencing outcomes and impacts. While we expect that many of the projects that involve universities are likely to be compiling this data via Researchfish or other university systems, similar data may not be routinely collected by, for example, CCUS-D projects.

#### **D. Step by step methodology**

Our proposed methodology comprises four overarching Phases and 18 discreet tasks that we believe will deliver a credible and robust evaluation.

##### **Stage 01: Project Initiation & Evaluation Design**

Our CCUS evaluation team includes the evaluators responsible for developing the initial scoping Evaluation Research Plan. This represents a notable advantage for project initiation and familiarisation. These team members will hold a detailed pre-project initiation briefing so that this Project Initiation and Evaluation Design Phase is efficient and effective.



**Task 2 – Literature familiarisation:** We will undertake a swift but thorough review of the existing evidence set out within the ITT. In addition to information sources and metrics set out, we also expect to review supporting data and documentation such as the related research available under each of the three programmes, the Energy Innovation Needs Assessments and data (consultation responses) and documentation regarding the August 2020 CCUS Business Models Response. Note that this review will build on the evidence our team has already reviewed to inform our proposal and we therefore expect to complete the literature familiarisation exercise within one week of agreeing the PID. **Output 2: Review of the literature presented in a succinct 'Landscape Review' by 27th November 2020.**

To ensure an effective CA, the ITT rightly emphasises a need to further develop the ToC,

Logic Models and most importantly the underpinning evidence and causal assumptions at aggregate and programme levels. Our initial review and update of the ToCs will therefore focus on i) alignment of the Programme-Level ToCs and Logic Models to the overarching Portfolio-Level, providing transparency about where aggregation of evidence is not feasible or credible, ii) collation and presentation of literature that supports causal inference across the ToC and Logic Models, iii) integrating our understanding of the R&D and wider programmatic, as well as industrial, context in which the programmes operate, and iv) developing theories about the plausibility (and *evaluability*) of the ToC.

**Task 3 – ToC Workshop and Identification of Contribution Claims:** We will co-ordinate a ToC workshop with BEIS representatives and members of our CCUS expert panel. This workshop will gather BEIS' perspectives on the current relevance and feasibility of intended outputs and outcomes (given pandemic effects) and any uncertainties around causal links ahead of further external consultation on the ToC (see Task 4). The internal ToC workshop will confirm/finalise the core research questions and sub-questions and will establish the Contribution Story. We will hold the workshop via video conference (Microsoft Teams or Zoom) in the **last week of November** and will circulate in advance initial Programme and Portfolio-Level ToCs based on content within the Evaluation Plan and supplementary findings from the literature familiarisation. **Output 3: draft ToCs.**

**Task 4 – ToC Scoping Interviews:** We will conduct supplementary consultation on the ToCs via scoping telephone / online interviews. We expect to consult with up to 15 strategic stakeholders using semi-structured topic guides which will a) gather qualitative perspectives regarding the theory and intervention logic underpinning each of the three Programmes and

b) identify any supplementary grey literature that adds weight to the causal evidence. We expect to target a combination of strategic and operational representatives (c.5 per Programme) including Programme Managers and strategic and operational leads for the BEIS CCUS theme and representatives from the ICCUS Steering Group and the CCUS Council. Introductory e-mail invitations will first be issued by BEIS representatives before coordination of the consultation is handed to our team. **Outputs 4:** Based on Tasks 2 – 4 we will produce **four updated ToCs (3 x Programme Level and 1 x Portfolio Level) by mid-January 2021**. They will establish an up to date definition of programme success (reflective of the severe economic disruption since March) and help to establish current and likely future risks and assumptions. To enhance efficiency in the design of the CA approach (see Task 5), we will also list 'contribution claims' and any evidence already gathered through Tasks 2-4 that either support or appear to refute the claims. In this way, we will begin to develop the hypotheses (per programme and for the portfolio level and including alternative hypotheses) that we intend to 'test' through the evaluation research.

**Task 5 – Evaluation Design and Planning:** We will use the outputs from Tasks 2 – 4 to refine and update the Evaluation Research Plan. The updated Evaluation Research Plan will clearly describe the evaluation design and the associated processes, research activity, risks and dependencies required to deliver the evaluation. It will more clearly visualise and describe the alignment between the ToC, agreed output and outcome indicators and associated qualitative and quantitative sources of evidence. It will include detailed lists of internal and external stakeholders to be consulted at Interim and Final Evaluation Stages and research tools (topic guides, survey questionnaires and case study research plans) as appendices. It will also provide a granular timeframe for planning, coordinating and conducting all proposed evaluation research activity. As part of this Task, we will provide very detailed design outlines for the overarching CA, and the CBA, barrier analysis, literature review, techno-economic modelling and case studies that will feed into it and a framework for conducting the process evaluation as described above.

**Output 5: Updated Evaluation Research Plan, by mid-February 2021.**

## Stage 02: Primary & Secondary Evaluation Research

The type and extent of data collected will differ at the Interim and Final Evaluation stages, with Interim data collection focussing more on process evaluation questions and Final data collection focussing on outcome and impact evaluation questions. By way of illustration the table below provides an example process evaluation framework for the interim stage.

EQ	What insights can be gained to inform the delivery processes of future CCUS Programmes?		
Sub-EQ	<ul style="list-style-type: none"> <li>• Did the CCUS-I launch, calls and associated communications reach intended audience.</li> <li>• Did the programmes receive a sufficient number and range of high-quality applications?</li> <li>• Was the application assessment process efficient and effective? Why / not?</li> <li>• Was the approach to risk management effective? Why / not?</li> <li>• Was the programme management / monitoring efficient and effective? Why / not?</li> <li>• Were appropriate mechanisms in place to share progress &amp; insight for policy development?</li> <li>• To what extent were programme participants satisfied with the programme processes?</li> </ul>		
	Data Source(s)	Indicators	Methods
Process	<ul style="list-style-type: none"> <li>• EIP monitoring data &amp; documentation</li> <li>• Qualitative Interview Data</li> <li>• CCUS-I Applicant / Participant Survey Data</li> <li>• Case study data</li> </ul>	<ul style="list-style-type: none"> <li>• # attendees at CCUS-I launch event(s)</li> <li>• # applications (successful / unsuccessful)</li> <li>• Opinion of BEIS CCUS-I operational staff on process efficiency &amp; effectiveness</li> <li>• Applicant &amp; participant opinion on process efficiency &amp; effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• Analysis of EIP monitoring data</li> <li>• Review of sample of successful / unsuccessful applications</li> <li>• Interviews with operational CCUS-I BEIS representatives &amp; successful CCUS-I project leads</li> <li>• Desk-based and qualitative case study research</li> <li>• Survey of CCUS-I successful &amp; unsuccessful applicants</li> </ul>

**Task 6 – Internal EIP Monitoring Data & Documentation:** We know from experience of the IDC and EPSRC Energy Programme Evaluations that monitoring data available for BEIS supported interventions provides good coverage and is of good quality. We will compile internal EIP data and documentation within a central database and repository on Ipsos MORI's secure servers. Internal EIP monitoring data will be critical to informing process and output oriented research questions (RQs 1 & 5).

**Task 7 – In-Depth Internal and External Stakeholder Telephone/Online Interviews:** We will use semi-structured in-depth telephone/online interviews to gather data from key internal and external stakeholders including **in two waves**. We will consult with the full range of stakeholders set out in the scoping Evaluation Plan (see sample interviews and survey frame below Task 8). All in-depth interviews will be conducted by senior evaluation team representatives who will use their experience to tailor the focus of in-depth interviews as appropriate. As far as possible we will interview the same individuals at Interim and Final Evaluation Stages and keep the topic guides the same so that follow-up interviews offer a further degree of fidelity to CA.

**Task 8 – Online Survey:** We propose to conduct a single online survey for both Project Partners and Wider Industry Representatives with different routing of questions (where necessary). This is because we believe that there is likely to be considerable overlap between these two stakeholder groups, and that they will therefore inform many of the same research questions and also, based on our experience of conducting evaluation research during the pandemic, telephone surveys have proven less effective than online surveys. The online survey can be more efficiently and effectively administered to non-lead Project Partners via Project Co-ordinators, and our team will use our relevant networks (e.g. the UK Carbon Capture and Storage Research Centre) to build a sample of Wider Industry Representatives. The survey will gather salient data from unsuccessful applicants regarding for example the implication of non-funding for CCUS project plans and process related questions such as efficiency and effectiveness of the application process.






**Table – Interview and Survey Sample Frame**

Stakeholder Group	Method	Interim Number Final	
Programme Management / Delivery	One to one interviews (online / telephone)	10	10
Project Coordinators	One to one interviews (online / telephone)	35	35



Project Partners	Online survey (follow-up telephone survey if required)	100	100
Policymakers	One to one interviews (online / telephone)	15	15
Wider Industry (assumed overlap with Project Partners)	Online survey	100	100
Unsuccessful Applicants	Online survey	<20	<20
Other	One to one interviews (online / telephone)	15	15

**Task 9 – Secondary Data:** Our joint team maintains access to an extensive set of more than a dozen secondary data sources including official statistics as ONS accredited researchers as well as multiple open-source and proprietary datasets. We will compile data from across these sources as part of our data driven approach to evidencing EQ3 – contribution to stimulating investment and deployment of CCUS.

Dataset		Source Type	Utility
Bureau van Dijk FAME		Subscription	Analysis of revenue, employment and R&D investment data among CCUS companies over time (1 year lag).
Beaurohurst		Subscription	Identification of 87 UK based Clean Tech companies and 97 fundraisings to support capital investment or R&D activity. Analysis of involvement in wider BEIS funded accelerators, quantification of funding received via grants and private investment.
Crunchbase		Subscription	Identification of international investment raising companies.
Lens.Org		Subscription	Identification of c.300 UK carbon capture patents, applicants, patent status.
Gateway to Research		Open-Source	Identification of UKRI funded collaborative research projects including project partners, academic publications, outputs and outcomes.

**Task 10 – Case Study Research:** We will conduct eight deep-dive case studies into Tata's Winnington Demonstration, PACT2 at the University of Sheffield, and an independently selected sample of six other CCUS-I (x2), FEED (x1) and ACT (x3) projects. Our selection of case study subjects will be based on agreed value for money criteria including but not limited to level of BEIS investment and project progress / continuity despite pandemic effects. Each case study will involve a desk review of relevant background documentation, analysis of secondary data (set out above) and five in-depth semi-structured interviews with project leads, key consortium members, target customers and / or supply chain businesses. We will agree case study content with BEIS in advance but expect that each case study will include: an introduction to the project and description of the prevailing policy and economic context, including salient market failures and rationale for BEIS intervention; detailed descriptions of project aims, objectives and activity to date; analysis of further funding leveraged from UK and international sources; analysis of international collaboration; and statements of planned (at Interim Stage) and actual industrial, technological, economic and environmental impacts.

### Phase 03: Analysis & Synthesis

We will analyse and synthesise evaluation evidence at the interim and final stage, as follows.

Analysis	Conducted at..
Techno-economic analysis interpretation	Interim Stage (baseline analyses) and Final Evaluation Stage (summative analyses)
Economic barrier analysis	Interim Stage (baseline analyses) and Final Evaluation Stage (summative analyses)
Cost Benefit Analysis	Final Evaluation Stage (summative analyses)
Contribution Analysis	Interim Stage (Minimalist Contribution Analysis) and Final Evaluation Stage (Direct Influence Contribution Analysis)

Qualitative Comparative Analysis	Final Evaluation Stage (Summative Qualitative Comparative Analysis)
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**Task 11 – Validation and interpretation of techno-economic assessments:** In conjunction with our expert academic panel we will validate and produce summative interpretations of levelized cost modelling updates produced by projects as evidence of CCUS cost reduction. During the Final Evaluation Stage we will also use carbon emissions reduction estimates in project completion and final reports as evidence of the Programme’s environmental and energy impacts.

**Task 12 – Economic barrier analysis:** The scoping study identified the key market failures and market barriers that prevent an efficient level of commercial activity related to CCUS. Via analysis and triangulation of in-depth interview data, survey data from Project Partners and Wider Industry Representatives, and analysis of secondary data including R&D investment, private equity and grant funding and patent data we will analyse: the extent to which the CCUS have addressed barriers and market failures to date: for example, the extent to which the programmes have helped to reduce financing costs for private sector investment that has occurred to date; and the extent to which the CCUS programmes have eased market failures and barriers which could stimulate future commercial activity; for example, the extent to which the programmes have helped inform market players of the future costs and feasibility of CCUS technology in the UK.

**Task 13 – Cost Benefit Analysis:** Our CBA will be developed collaboratively by senior economists from within Perspective Economics and skilled economists from Ipsos MORI, with quality inputs from Technopolis Group (including a former BEIS energy economist) and overall Quality Assurance from the team’s Quality Director Mark Matthews. For each of the three programmes, our CBA will focus primarily on the net additional benefits to the energy sector. We consider that the key parameters of quantitative estimation of energy sector benefits are: a) the cost of CCUS technologies in the power and industrial sectors, b) the level of carbon abatement from CCUS technologies and c) capacity deployment scenarios. We will develop and agree counterfactual and projected scenarios for these parameters with BEIS on the basis of the evidence gathered in other workstreams; for example, the evidence gathered above on market failures will be vital to informing the capacity deployment scenarios. Estimating the net reduction in carbon emissions and energy bills robustly will require modelling of the power sector and industrial sectors. We consider that the most robust way to conduct this modelling that is consistent with BEIS’ analysis is to develop and agree inputs that can be used by BEIS representatives to run Dynamic Dispatch Model (DDM) and UK-TIMES model analyses. We can then interpret the outputs and discuss the results in our report. We will also consider the extent to which the CCUS programme provided ‘option value’ for policy makers, by maintaining and developing a supply chain for CCUS technology and leaving open the possibility of significant deployment of CCUS in the power and industrial sectors. Quantitatively assessing this value would involve significant modelling of power and industrial sector pathways. We therefore consider that it will be proportionate to conduct qualitative analysis of option value by assessing the key drivers of the option value for CCUS, and how the CCUS programmes have contributed to this option value; for example by preserving and developing a CCUS supply chain in the UK.

**Task 14 – Contribution Analysis:** *As the overarching framework for this evaluation, our approach to CA is described under section B above.*

**Task 15 – Qualitative Comparative Analysis:** to assess outcomes and impacts regarding CCUS investment, technology development and accelerated deployment we will pool CCUS- I, CCUS-D and CCUS-ACT projects together and conduct analysis across all (c.40) in-scope projects. We will use common data points including technology readiness levels, capital investment, R&D investment and deployment plans and compare them to the same data in respect of non-EIP funded comparator group (drawn for example from EPSRC Energy Research Programme or IUK funded collaborative research projects). Depending on the extent and quality of data that we compile we will either undertake statistical comparisons, or at the very least conduct a QCA that can better evidence the causal role of EIP funding.

## Phase 04: Reporting & Dissemination

**Task 16 – Reporting:** We will produce outputs at Evaluation Inception & Design (by March 2021), Interim (by June 2021) and Final Evaluation Stages (by June 2022). Reports at both Interim and Final Evaluation Stages will report on all research questions, but greater emphasis will be placed the process evaluation (evaluation questions 5 and 6) at Interim Stage and impact and economic evaluation at Final Evaluation Stage. Case study reports will be provided separately. We anticipate that outputs and deliverables will include:

Evaluation Stage	Outputs
Evaluation Inception & Design (Outputs 1 – 5, March 2021)	<ol style="list-style-type: none"> <li>1. Project Initiation Document (c.10 pages)</li> <li>2. Landscape Review (c.12 pages)</li> <li>3. 4 x Theories of Change (c.4 A3 pages)</li> <li>4. Set of Contribution Claims (c.2 pages)</li> <li>5. Updated Evaluation Research Plan (c.40 pages)</li> </ol>
Interim Evaluation (Outputs 6 – 11, June 2021)	<ol style="list-style-type: none"> <li>6. Full Process Oriented Evaluation Report (c.50 pages)</li> <li>7. Stand-Alone Executive Summary (c.5 pages)</li> <li>8. Technical Methodological Appendix (c.10 pages)</li> <li>9. Draft Case Study Reports x 8 (c.12 pages each)</li> <li>10. Key Findings Summary Presentation (c. 20 slides)</li> <li>11. Policy Presentation (c.20 slides)</li> </ol>
Final Evaluation (Outputs 12 – 17, June 2022)	<ol style="list-style-type: none"> <li>12. Full Impact Evaluation Report (c.80 pages)</li> <li>13. Stand-Alone Executive Summary (c.8 pages)</li> <li>14. Technical Methodological Appendix (c.15 pages)</li> <li>15. Final Case Study Reports x 8 (c. 12 pages each)</li> <li>16. Key Findings Summary Presentation (c.20 slides)</li> <li>17. Policy Presentation (c.20 slides)</li> </ol>

**Task 17 – Dissemination:** The rationale for this evaluation as noted under section A above is to provide lessons and demonstrate accountability not only for BEIS and the EIP Steering Group, but also for wider industry and academic actors who have an interest, investment and/or a role to play in the rollout of CCUS. In addition to disseminating findings through formal publication and presentations to BEIS at the interim and final stages, Ipsos MORI can offer additional added-value presentations and repackaging of information for different audiences. We will – as much as possible (and where given client approval) enhance policy findings by drawing through knowledge from our other programme evaluations (IDC, EPSRC, etc.). The links to academia and industry through our expert panel should also help us to ensure that our research is as useful / actionable / realistic as possible. We recognise that a notable amount of money is being spent on these programmes, but that they are also working to critical policy objectives and this is why we have designed an evaluation that will allow for the development and dissemination of learning on this.

## PROJ1.2

### A. Overview of the skills and expertise to deliver

This complex and specialist evaluation will be delivered by **Ipsos MORI (IM)** in partnership with **Perspective Economics (PE)** and **Technopolis (TG)**, with the technical CCUS knowledge of our **academic and industry advisory panel**. Our consortium is excellently-placed to deliver this multi-stranded and multi-year evaluation having – together – delivered almost 20 energy innovation evaluations for BEIS and its agencies (see Box below).

#### Box 1. Our track record in energy innovation and research evaluations

As a consortium, we have delivered impact evaluations and evaluation design / baseline studies of the following BEIS and UKRI programmes covering energy innovation themes:

- **Industrial decarbonisation:** ISCF Industrial Decarbonisation Challenge (IM – *evaluation design*); EPSRC Energy Programme (EP); CCUS and IFS scoping studies (TG).
- **Renewables innovation:** ISCF Prospering from the Energy Revolution (PFER) (IM); UKRI Energy Catalyst (TG); Hy4Heat (TG).
- **Energy entrepreneurs and green financing:** Energy Entrepreneurs Fund (EEF) (IM); Global Climate Partnership Fund (IM); UK Climate Investments (IM).
- **Smart systems evaluations:** Non-Domestic Smart-Meter Innovation Competition (NDSEMIC) (IM); Smart Energy Savings (SENS) (IM).
- **Energy efficiency and heating:** Energy Savings Opportunity Scheme (ESOS) (interim and final) (IM), Green Deal (IM), ECO (IM), CERT (IM), CESP (IM), Warm Front (IM).

The consortium builds on **established relationships** between IM PE and TG and upon previous work that IM and PE have conducted with the academic panel. IM has worked with PE on a series of economic market studies and evaluations for central government clients including DCMS and the NHS. IM and TG have a well-established partnership, most recently collaborating on distinct components of their respective Hy4Heat and NDSEMIC evaluations. Given our **existing working relationships**, our consortium will hit the ground running and deliver the best value for money, in this research programme. Overall, our team brings:







[illegible]



## PROJ1.3

### A. The rationale for Carbon Capture, Utilisation and Storage (CCUS)

CCUS has the potential to save the UK tens of billions of pounds (up to 1% GDP) from the annual cost of low carbon energy by the 2040s, but this is dependent upon increasing carbon storage capacity in the UK to 10GW and securing associated capital investment of around £21bn - £31bn.<sup>1</sup> CCS research and technology deployment has been a Government objective for the past decade: in 2012 the UK Government's Carbon Plan acknowledged the urgent need to change the way industry and society operates, particularly in high carbon output areas, including power generation, personal and commercial heating and transport.<sup>2,3</sup> Initiatives outlined in the plan were wide-reaching, including for example:

- The fitting of new and existing power stations with carbon capture technology, to cope with current, and forecast future CO<sub>2</sub> levels;
- Ongoing work by UK Trade and Investment to support companies within the sector;
- Government efforts to share best practice on emissions trading and CCS with emerging economies; and
- Collaborative working with the Global Carbon Capture and Storage Institute.

At that time, CCS was also referenced within the UK's 2050 Pathways Analysis,<sup>4</sup> which outlined how the scale and speed of CCS technology advancement would play an important role in the UK's strategy and capability to meet net zero goals. More recently the Department for Business, Energy and Industrial Strategy (BEIS)'s Clean Growth Strategy (2017)<sup>5</sup> outlined how the UK aims to demonstrate international leadership in CCUS by collaborating with global partners and investing £100 million in CCS to drive down costs. This ambition is further supported by the Committee of Climate Change's (CCC's) Net Zero Technical Report, which also highlighted how CCS will be necessary to decarbonise flexible carbon-based power generation as the UK moves to a more sustainable and renewable energy source<sup>6</sup>. Furthermore, CCS is supported as a central means to address the UK's carbon footprint by the Intergovernmental Panel on Climate Change (IPCC)<sup>7</sup>, the International Energy Agency (IEA)<sup>8</sup> and the UK's Committee on Climate Change (CCC).<sup>9</sup>

This UK policy context highlights how CCS research and technology has been a high priority area for the past decade and remains so in the current economic and policy landscape.

However, during this time CCS has also faced challenges, particularly in terms of funding for at-scale demonstration projects. Having first committed to funding CCS demonstrations at scale in 2007, the initial demonstration competition was cancelled in 2011 because it could not be funded within the agreed £1bn budget. A second £1bn competition was launched in 2012 but cancelled in 2016 due to concerns over the longer-term cost to the taxpayer.

Investigations by the National Audit Office found that a lack of early cross-departmental agreement on competition budgets contributed to the cancellations.

However, recently (as outlined above) Government has reiterated its commitment to CCS, including an ambition for the UK to become an international leader in CCS technology, and to ensure that the option exists to deploy CCS at scale during the 2030s.<sup>10</sup>

Recent research conducted by our team on behalf of EPSRC has highlighted the extent to which energy research funding has helped to move the UK in the right direction. Comprehensive bibliometric studies have charted CCS research outputs internationally,

<sup>1</sup> Energy Technologies Institute (2015) [Carbon capture and storage Building the UK carbon capture and storage sector by 2030](#)

[– Scenarios and actions.](#)

<sup>2</sup> Climate.Gov (2020). [Climate Change: Atmospheric Carbon Dioxide.](#)

<sup>3</sup> HM Government (2019) [Carbon Plan.](#)

<sup>4</sup> HM Government (2010) [2050 Pathways Analysis.](#)

<sup>5</sup> BEIS (2017) Clean Growth Strategy.

<sup>6</sup> Committee on Climate Change (2019) [Net Zero Technical Report](#).

<sup>7</sup> [The Global Status of CCS](#) (2017).

<sup>8</sup> International Environmental Agency [News Article](#) (2018)

<sup>9</sup> Committee on Climate Change (2018) – retrievable [here](#).

<sup>10</sup> Business Energy and Industrial Strategy Committee, [Carbon capture use and storage: third time lucky?](#) April 2019

highlighting that within post-climate change abatement legislation, 55 countries have engaged in CCS related research. Of these countries, the UK ranks second behind only the US, and ahead of China in terms of research output volume.<sup>11</sup> In addition, the BEIS co-funded Pilot-Scale Advanced CO<sub>2</sub>-Capture Technology (PACT) facility supported 70 industry collaborations (30 individual projects) with a value over £41 million, grant allocations of c.£3.5 million, involving 1,200 visitors from 300 organisations. PACT has since grown into the Translational Energy Research Centre, supported by funding from the European Development Fund, the University of Sheffield and BEIS, becoming one of the best equipped low carbon energy, combustion and CCS research and development facilities in Europe.

Despite these successes, uncertainties regarding large scale deployment remain. This is linked to the turbulent economic and political environment, and the current deficit in technology which limits CCS's capability to operate at scale. BEIS investment in the Energy Innovation Programme (EIP) is the major mechanism through which closer to market technology development and demonstration will be achieved. There is a clear need for BEIS to gather detailed evidence regarding the effectiveness or otherwise of this investment in CCS technology development and demonstration. However, if BEIS and its agencies are to continue effectively progressing CCS technology development and deployment it is equally important to understand and use lessons learned via the EIP and those of other relevant R&D programmes, such as the Industrial Decarbonisation Challenge Fund.

## B. The CCUS programmes

BEIS' three EIP CCUS programmes are intended to complement each other to de-risk and facilitate the roll-out of CCUS technologies. The Scoping Study conducted on the CCUS programmes detailed how innovation and demonstration, as well as international collaboration is expected to support innovation and demonstration activities. Each programme is intended to contribute to addressing these barriers, as follows:

- CCUS-I aims to **reduce the costs of CCUS technologies** and accelerate deployment;
- CCUD aims to support the **design and construction** of intermediate scale CCU demonstrations;
- ACT is a transnational initiative to **facilitate collaborative research, development and demonstration** projects that can **accelerate CCUS deployment**.

Together, they are expected to have the following impacts:

- Environmental: Decarbonise the UK economy at least cost.
- Economic: Reduce the cost of electricity and improve security of supply.
- Economic: Enable UK industry to remain competitive in carbon-intensive industries.
- Economic: Support the protection of jobs, growth and living standards.
- Economic: Ensure the UK is well-placed to participate in growing domestic and export markets for CCUS, resulting in increased GVA and jobs.

## C. Ensuring a successful delivery within the working environment

The proposed evaluation methodology provides a pragmatic and comprehensive approach to gathering this evidence via a combination of process evaluation, economic evaluation and case studies that be brought together to inform the overall contribution analysis. The Evaluation Plan produced by the EIP Support Consortium establishes the context, rationale and objectives for the three programmes, and provides a detailed framework against which to measure progress in terms of outputs, outputs and impacts. We do not propose duplicating the considerable work that has gone into developing the Evaluation Plan; however, as set out in our methodology section, we would propose that our team undertakes a brief review of the Evaluation Plan and the underpinning theory of change given the significance that they have for all subsequent components of the evaluation. In particular we believe that, if not already available, investment in bolstering the evidence that underpins

<sup>11</sup> Source: UKCCSRC independent bibliometric analysis

causal links between outputs, outcomes and impacts may serve a dual function of a) getting our team up-to-speed and b) providing an additional layer of credibility within the theory of change, and to the overall study. Additionally, in PROJ1.1, we have proposed some minor deviations from / additions to the scoping study's design.

The CCUS Evaluation Plan Report presents a succinct overview of programme delivery to date (to which limited further information can be added and is therefore not duplicated in detail here), including the Phase 1 Scoping Study and Phase 2 Front End Engineering Design (FEED) Studies, and the Phase 3 (A+B) Construction and Demonstration Projects. The Phase 3B Call was issued in July 2019 and is expected to support one or both of the projects supported under Phase 2 FEED. While limited information is available regarding Phase 3B progress, web-content available from Drax Group suggests that progress is being made on a second demonstration project due to be installed in Autumn 2020.

It will clearly be important for the evaluation to provide robust and insightful data regarding the current status of the CCUD programme and given the scrutiny of previous demonstration initiatives it will also be important for the economic analysis of CCUD in particular to be detailed, transparent and robust. To that end we have included a former BEIS economist in our team to ensure that the economic analysis is fully aligned with BEIS expectations, and further detail regarding the focus of our economic analysis and the associated resource we will deploy is provided in our methodology.

The programmes are distinct in the way they expect to achieve results. Each programme (and some of the projects within it) will require tailored research design to assess causality and impact. Whilst all lend themselves well to a theory-based design, it may be possible to apply a counterfactual analysis to the CCUS Demonstrator project (where runner-up locations form the counterfactual) if we are able to access data on the level of investment in CCUS technologies via qualitative interviews with industry representatives.

#### **D. The potential impacts of COVID-19 on the evaluation assignment**

There is recognition within the ITT that the pandemic has already had varying degrees of impact on projects across the three CCUS programmes, from minor adjustments to major (up to estimated 9-month) delays. Our consultation to inform the proposal (including with the University of Sheffield/UKCCSRC who run the PACT facility) have reiterated the challenges posed by COVID-19. These pandemic effects will have knock-ons for the evaluation which could range from slight adjustments to planned timing of evaluation research, to much more significant questions about whether proposed evaluation timings can still produce a value for money evaluation. Our proposed evaluation timetable can be flexible. Within the Initiation and Evaluation Design Phase we will undertake a high-level review of project progress and consult with BEIS representatives to identify any significant value for money risks and to determine whether our proposed timetable needs to be adjusted to ensure maximum value from the evaluation.

COVID-19 is likely also to be having significant effects on businesses operating within the CCUS and wider energy industries. Many SMEs are likely to be in challenging commercial positions and the future of their business may be uncertain. In this context there is a risk that business sustainability will take precedence over research and innovation activity. These industrial pandemic effects may have knock-ons for the evaluation, particularly in terms of stakeholder engagement and survey responses, and could mean that SMEs' views of EIP-funded projects may be (negatively) skewed by potential short-term de-prioritisation of research, development and innovation activity. While recruitment issues will affect the robustness of the evaluation, we are proposing data collection methods that are entirely proportionate and represent minimal possible burden on stakeholder groups, including non-lead project partners and wider industry representatives. We will work closely with BEIS representatives and Energy Innovation Programme Leads to raise awareness regarding the evaluation including notifications via existing programme-level communication channels.

will then b

will then b

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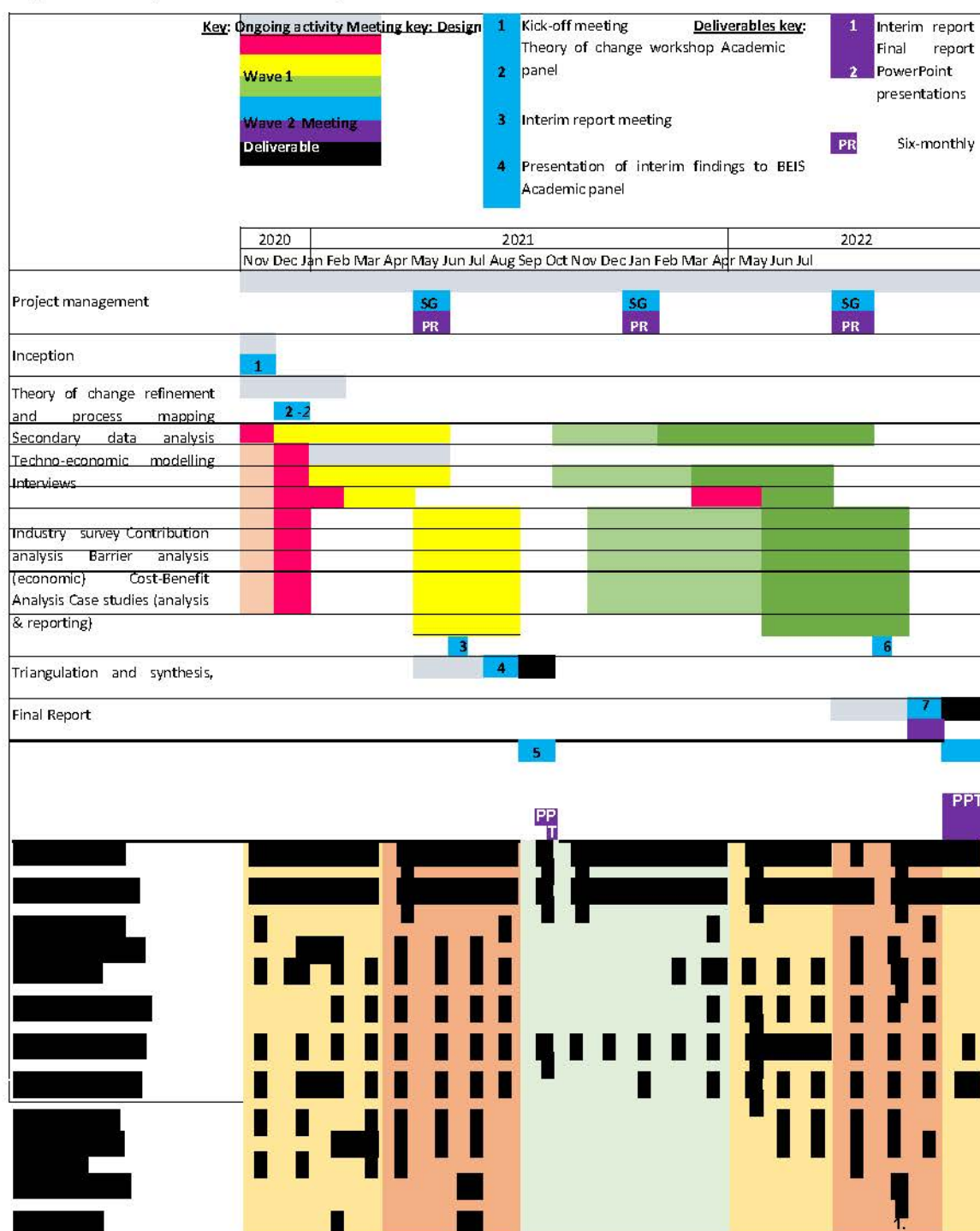
secondary data compiled (and used for economic analysis). PROJ1.1 listed a number of outputs produced at the end of specific research Tasks (e.g. analytical summaries, revised ToCs, a project initiation document, workshop handouts). For simplicity – and because they are not contractual deliverables – they are not listed in the Gantt.

### C. Project work plan

The Gantt chart below illustrates the timing of each of the evaluation activities, indicating the timing of meetings and deliverables. It highlights when research design activities will take place (mostly in the first two months of the assignment) and when the first and second waves of longitudinal research will be conducted. The Gantt also indicates when the busiest periods will be – in the four months leading up to and including interim and final reporting (i.e.

~March to June 2021 and 2022). The PM team will carefully plan team inputs and workloads around this time to mitigate any risk on delivery. We will also monitor team capacity closely and should there be any capacity issues or unforeseen absences, we will make sure to trigger our continuity arrangements (see above).

**Figure 1. Comprehensive work plan**







## PROJ1.5

### PROJ1.5 Risk and challenge management

The table below provides an overview of what we consider to be the main risks to this evaluation and our proposed mitigation strategies. We have rated each risk in terms of likelihood (L) and impact (I) from 1 to 5 (where 1 is low likelihood or impact) and then multiplied these ratings to give a total risk score (S). We have also rated the reduced likelihood of each risk (L\*) after taking our measures.

Risk 1: COVID-19 Project Effects				
Risk rating	L - 4	I - 4	S - 16	L* - 2.5
<b>Description:</b> There is recognition within the ITT that the pandemic has had varying degrees of impact on projects across the three CCUS programmes, from minor adjustments to major (up to estimated 9-month) delays. Our consultation to inform the proposal (including with the University of Sheffield/UKCCSRC who run the PACT facility) have reiterated the challenges posed by COVID-19. These pandemic effects will have knock-ons for the evaluation which could range from slight adjustments to planned timing of evaluation research, to much more significant questions about whether proposed evaluation timings can still produce a value for money evaluation.				
<b>Mitigation measures:</b> Our proposed evaluation timetable can be flexible. Within the Initiation and Evaluation Design Phase we will undertake a high-level review of project progress and consult with BEIS representatives to identify any significant value for money risks and to determine whether our proposed timetable needs to be adjusted to ensure maximum value from the evaluation. While we do not anticipate any major adjustments to the Interim Evaluation Stage it may represent better value for money to stagger the Final Evaluation Stage dependent on the extent of COVID-19 induced delays.				
Risk 2: COVID-19 Industry Effects				
Risk rating:	L - 4	I - 4	S - 16	L* - 2
<b>Description:</b> COVID-19 is likely also to be having significant effects on businesses operating within the CCUS and wider energy industries. Many SMEs are likely to be in challenging commercial positions and the future of their business may be uncertain. In this context there is a risk that business sustainability will take precedence over research and innovation activity. These industrial pandemic effects may have knock-ons for the evaluation, particularly in terms of stakeholder engagement and survey responses, and could mean that SMEs' views of EIP-funded projects may be (negatively) skewed by potential short-term de-prioritisation of research, development and innovation activity.				
<b>Mitigation measures:</b> While recruitment issues will affect the robustness of the evaluation, we are proposing data collection methods that are entirely proportionate and represent minimal possible burden on stakeholder groups, including non-lead project partners and wider industry representatives. We will work closely with BEIS representatives and Energy Innovation Programme Leads to raise awareness regarding the evaluation including notifications via existing programme-level communication channels, joint BEIS / Ipsos invitations to contribute to the evaluation, and options to deploy a multi-channel approach to evaluation research (e.g. switching to telephone interviews and adjusting target quotas accordingly in the unlikely event that online survey methods do not return sufficient data).				
Risk 3: Data access challenges				
Risk rating:	L - 4	I - 4	S - 16	L* - 4
<b>Description:</b> The impact evaluation (including the cost benefit analysis) will require the collection of data on financial leverage, investment, R&D spending and turnover. Such information is commercially sensitive and unlikely to be available in the public domain. Similarly, it may be challenging to gather evidence (indications) of knowledge generation – unless the research centres and organisations supported have maintained records of academic publications produced (or recorded these on Researchfish), accurate information may be time-consuming or impossible to gather.				
<b>Mitigation measures:</b> In anticipation of barriers to secondary data collection, we have budgeted for more than 150 interviews to be taken (this is more than the ~100 proposed in the ITT). The purpose would be to enable us to contact industry and research actors (including those covered by the survey) to conduct any further qualitative research (i.e. on the assumption that participants might be				

more likely to share commercially sensitive or difficult to gather data via qualitative interview – in which it is more possible to build trust - than an online survey).

#### Risk 4: Theory-Based Evaluation Risks

##### Risk rating:

L - 3

I - 3

S - 9

L\* - 1

**Description:** The EIP initiatives are complex and highly diverse. For that reason, a Theory-Based evaluation approach is justified and represents best value for money. However, there are risks associated with adopting a Theory-Based evaluation, particularly the risk that the approach and outputs are deemed credible among strategic external stakeholders. This risk is more likely where the evaluation is devised and delivered by a small cohort of evaluators because the approach and implementation are not subject to sufficient challenge/critique.

**Mitigation measures:** We have and will continue to mitigate this overall evaluation risk in several ways. We have already undertaken a rigorous review of alternative Theory-Based evaluation options and concluded that - in the main - the approach set out in the scoping Evaluation Plan is appropriate. We have identified a series of methodological challenges regarding the overall evaluation, and within individual EIP Programmes and will ensure that these are effectively addressed. We have included the original evaluation design team within our consortium to provide continuity of thinking and deliver maximum efficiency and effectiveness within the Initiation and Evaluation Design Phase. However, we have also proposed using Qualitative Comparative Analysis (QCA) to augment the evidence base in respect of EQ 3. Bringing together this team of evaluation experts and adding QCA to the proposed approach effectively mitigates against any overarching risk of evaluation credibility.

#### Risk 5: Issues engaging breadth of stakeholders to ensure comprehensive evaluation coverage

##### Risk rating

L - 3

I - 4

S - 12

L\*: 2

**Description:** This evaluation requires evidence to be drawn from a variety of stakeholders including BEIS staff, Project Partners and their networks, SMEs, academics, and techno-economic analysts among others. Each stakeholder group presents its own engagement challenges, driven for example by time constraints, commercial motivation, competing priorities and / or general awareness of the value of the study. There is also a risk, as there is with any research, that certain stakeholders (such as those with the most positive or negative things to say) may be more likely to respond to invitations to take part.

**Mitigation measures:** Engagement risks will be addressed in three main ways:

- 1 – Establishing upfront **expectations** and timeframes and points-of-contact for different stakeholder organisations within the Initiation & Evaluation Design Phase. The Ipsos MORI PM will also act as a dedicated point-of-contact who can offer reassurances of confidentiality as needed.
- 2 – **Best practice, tailored engagement techniques:** through our extensive experience we can ensure well-designed introduction emails (co-signed by the study team and BEIS) that demonstrate to participants the benefits of taking part in the evaluation and its relevance to their role (of particular relevance to external audiences). A 'warm-up' email directly from BEIS prior to this can further increase engagement. Scheduling of evaluation activities will be flexible to participant needs. Our proposed data collection methods are wholly proportionate and will represent minimum possible burden on stakeholder groups, yet we are prepared to adjust our data collection methods, if necessary, to ensure robust data collection.
- 3 – While data collection parameters do not necessitate detailed sampling, we will nonetheless **develop and agree minimum data collection quotas** across all stakeholder groups in line with the existing scoping Evaluation Plan. This quota-driven approach will ensure sufficient coverage across stakeholder groups.

#### Risk 6: Weaknesses in the evidence base make it challenging to draw out policy level conclusions

##### Risk rating

L - 3

I - 4

S - 12

L\* - 2

**Description:** This is a multi-stranded evaluation including a process, impact and economic evaluation in a complex, technical and evolving policy area. There is a risk that conclusions drawn from the evaluation lack relevance in the absence of sufficient market context and are not conducted to the rigorous standard required to ensure findings are viewed credibly and answer key questions.

**Mitigation measures:** This evaluation will need to triangulate evidence from the various strands to provide actionable recommendations and lessons on what works. BEIS stakeholders will expect this evaluation to help guide decision making around what further investment is required to effectively deliver the UK's CCUS ambitions. These 'relevance risks' are mitigated within our approach in several ways. We have assembled a highly experienced team which has both expertise in complex large-scale evaluation and provides deep CCUS knowledge. We have included sufficient resource from our academic and industrial panel to ensure that the evaluation evidence is effectively translated into relevant and robust policy advice. In addition, we are investing heavily in the Inception and Evaluation Design Phase to ensure that the Theories of Change are robust, that the framework for the Contribution Analysis is suitably targeted and that the proposed Qualitative Comparative Analysis is feasible. Our team has also been assigned clearly defined individual roles to ensure multiple stands of activities are delivered to the highest quality by experts. There will also be a clear audit trail to evidence how conclusions were arrived at and we will work with BEIS to allow for external QA and peer review if/where relevant.

#### **Risk 7: Poor Quality / Coverage of Monitoring Data**

##### **Risk rating**

L - 2	I - 4	S - 8	L* - 2
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**Description:** The scoping Evaluation Plan establishes the evaluation's reliance on internal monitoring data. Internal KPIs are expected to inform at least 20 of the 39 sub-questions identified (excluding process related sub-questions). While our experience of similar evaluations suggests that monitoring data quality and coverage will be good, there is a risk that inadequate quality or coverage will reduce the robustness and/or credibility of the evaluation.

**Mitigation measures:** Within the Initiation and Evaluation Design Phase we will undertake an extensive desk-based review of available data and documentation. Where gaps (or potential data-gap risks) are identified we will work directly with EIP Programme Leads (and lead Project Partners where necessary) to establish appropriate and proportionate mechanisms for routine collection of the most salient data points.

#### **Risk 8: Continuity of staff impacted (by COVID-19 or otherwise)**

##### **Risk rating**

L - 2	I - 2	S - 4	I* - 1
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**Description:** As with any project, there is a risk of team changes which may result in a loss of project knowledge and lack of continuity. This risk is heightened due to COVID-19.

**Mitigation measures:** Within Ipsos MORI alternate staff have been identified for each core team member and/or task leader, and consortium partners have additional staff available to provide permanent replacements. Ipsos MORI employs long-term resource planning and has a dedicated Resource Manager to ensure sufficient (and suitable) resource on projects. Our staff turnover levels are also low, and quality procedures and working practices are designed to ensure complete documentation of all stages, ensuring that staff changes can occur with minimal loss of knowledge/disruption to clients. We propose undertaking monthly progress reports which include a log of key decisions and issues, acting as an audit trail should there be team changes or absences.

## Part 2: Contract Terms



Contract Terms v6.0