# Call-Off Schedule 19 (Call-Off Specification)

## Introduction to the Requirement

DESNZ is seeking to appoint specialist technical advisers (as a single organisation or consortium) to aid the development and delivery of new policies to support the UK's hydrogen economy. The successful contractors will:

- Support the design of the work programme to enable deployment of low carbon hydrogen projects in the late 2020s and early 2030s.
- Provide technical insights on hydrogen production, including both CCUS-enabled and non-CCUS-enabled hydrogen production, hydrogen transport and storage and hydrogen to power.
- Provide technical, engineering and regulatory advice on hydrogen business model development, project negotiations, the low carbon hydrogen standard and certification scheme, hydrogen markets and networks, regulatory frameworks, the UK's hydrogen market in a wider global context (inc. exports and imports of both hydrogen the molecule and hydrogen goods and services), hydrogen in industry and hydrogen sector development.
- Support the design and delivery of the allocation processes of hydrogen projects bidding for government funding.

The contract will be divided into specific work packages scoped out and agreed, when necessary, throughout the length of the contract using the Work Package Tasking Form template at Annex A. As such, the requirements below contain our current view of the aims and objectives, and capabilities required from a contractor.

In parallel to this procurement, separate procurement exercises have been conducted to appoint legal and financial advisors. All advisors will be expected to work together as an advisory team.

## Background

Low carbon hydrogen is essential to achieve the Government's Clean Energy Superpower and Growth Missions. It will be a crucial enabler of a low carbon and renewables-based energy system and will help to deliver new clean energy industries which can support good jobs in our industrial heartlands and coastal communities. Hydrogen presents significant growth and economic opportunities across the UK, by enhancing our energy security, providing flexible, cleaner energy for our power system and helping to decarbonise vital UK industries.
Hydrogen has a critical role in helping to achieve our Clean Energy Superpower Mission. It can provide flexible low carbon power generation, meaning we can use hydrogen to produce electricity during extended periods of low renewable output. Hydrogen can also provide inter-seasonal energy storage, through conversion of electricity into hydrogen and then back into electricity at times of need, using a combination of hydrogen production, storage and hydrogen to power.
To advance our Clean Energy and Growth Missions, hydrogen also has a unique role in transitioning crucial UK industries away from oil and gas and towards a clean, homegrown source of fuel. Hydrogen can decarbonise hard-to-abate sectors like chemicals and heavy transport, complementing our wider electrification efforts and accelerating our progress to net zero. Using our strong domestic expertise and favourable geology, geography and infrastructure, backing UK hydrogen can unlock significant economic opportunities and new, low carbon jobs of the future. Government has an ambitious range of policies in place to incentivise and support industry to invest in low carbon hydrogen. The recent Hydrogen Skills Workforce Assessment, an industry-led study undertaken by the Hydrogen Skills Alliance, estimated that the UK hydrogen economy could support 29,000 direct jobs and 64,500 indirect jobs by 2030.

Government has already made significant progress in delivering the UK hydrogen economy. This includes confirming support for the 11 successful Hydrogen Allocation Round 1 projects, announcing up to £21.7 billion of available funding to launch the UK's new carbon capture, utilisation and storage industry, and publishing our hydrogen to power consultation response with an aim to establish a new hydrogen to power business model. We also published a consultation seeking views on proposed design choices of the Gas Shipper Obligation, which is intended to be the long-term funding mechanism for initial hydrogen production projects funded through the Hydrogen Production Business

Model. Government has launched three new bodies – the National Energy System Operator, Great British Energy and the National Wealth Fund – to help deliver a world-class energy system, including for low carbon hydrogen.

The December 2024 Hydrogen Strategy Update to the Market sets out the key milestones achieved by the Department for Energy Security and Net Zero in 2024 to deliver the hydrogen economy and an ambitious forward look at our next steps and upcoming opportunities.

**Contract Structure & Dual Sourcing**

The Authority will appoint a Primary Supplier for this requirement, and also an additional Secondary Supplier. The appointment of these suppliers will be according to the ranking of the scores they achieve during tender evaluation. That is to say, the supplier with highest score will be appointed as the Primary Supplier, and the supplier with the second highest score will be appointed as the Secondary Supplier.

All work that is required by the Authority under this requirement will be offered first to the Primary Supplier. If the Primary Supplier is unable to fulfil the requirement in the Authority's view due to one or more of the following:

1. Has a conflict of interest that cannot be sufficiently mitigated
2. Is unable to provide personnel with the required skills and experience to meet the specific requirements of the work
3. Is unable to provide resources within a reasonable timeframe (to be agreed on an individual project basis); or
4. Is otherwise constrained in terms of capacity

the Authority reserves the right to commission work via the Secondary Supplier.

The Authority will consider the requirements of a work package on a case-by-case basis and if in the Authority's view, none of the criteria identified above apply, then the work will be allocated and carried out by the Primary Supplier. If, however, the Authority determines that one or more of the criteria are present and apply, the Authority, at its sole discretion, will determine whether to award the work to the Secondary Supplier based on the criteria in the above section.

Following contract award, successful Tenderers will be expected to identify one named point of contact through whom all enquiries can be filtered.

**Aims and Objectives of the Contract**

The aim of this contract is to procure technical advisers to support DESNZ with furthering the development and delivery of a programme of work to support the UK's hydrogen economy, as part of the Government's net zero ambitions.

**Adding Work Packages to the Call-Off Contract**

Each Work Package shall be individually agreed between the Buyer and Supplier as and when required and shall be priced using the Work Package Tasking Form template at Annex A to Call-Off Schedule 19 (Call-Off Specification) using the Rate Card specified in Call-Off Schedule 5 (Pricing Details).

**Requirement**

Currently, technical support required may include, but is not limited to, advice on the following:

**Provide technical and engineering advice to support policy development of the hydrogen production business model, hydrogen transport business model, hydrogen storage business model and hydrogen to power business model:**

- Help scope and design the programme of activity needed to deploy low carbon hydrogen projects during the late 2020s and early 2030s.
- Identifying and advising on technical and engineering issues that may be relevant to the development of various business models.
- Provide input and technical advice into Heads of Terms and contract development for each hydrogen business model.
- Ensure that consistent advice is provided across the government teams (hydrogen production business model, hydrogen transport business model, hydrogen storage business model and hydrogen to power business model, hydrogen economy and sector growth).
- Contribute to stakeholder updates as policy develops.
- Collaborate with commercial and legal advisers on overarching topics where appropriate.
- Provide technical advice to support the continued development of the strategy and design for future allocation rounds, including future price-based competitive allocation rounds.
- Identify and advise on technical and/or engineering aspects of consents and other regulatory requirements relevant to deployment of low carbon hydrogen projects.

**Support the design and delivery of DESNZ hydrogen allocation rounds by using engineering expertise to carry out technical and cost assessments, project technical due diligence, cost assurance and input into negotiations:**

- Assist and inform the design of technical assessment processes for projects bidding for hydrogen production business model support. There is an expectation that this support will also be required for the hydrogen transport business model, hydrogen storage business model and hydrogen to power business model.
- Support the development of eligibility and evaluation criteria, drafting application guidance and supporting templates required for various allocation rounds.
- Support the planning and coordination of the assessment processes for various allocation rounds, including resourcing plans and timeline and reporting planning.
- Provide support to scrutinise technical aspects of the propositions from these projects, providing a score against defined evaluation criteria. Raising any supplementary questions to help inform assessments if required.
- Attend engagement sessions with projects and help respond to any specific questions they have on the process, timelines, templates and criteria of the various programmes.
- Support ongoing monitoring of successful projects to ensure successful delivery as planned.
- Provide technical scrutiny of hydrogen projects through the due diligence and negotiations period to determine their design and delivery in an efficient, effective and economic (3Es) manner, up to and including technical input into and signing of the agreed Contracts for individual projects. This may include, but is not limited to, technical scrutiny following pre-FEED and FEED development stages.
- Conduct assurance on project costs at defined points in time based on allocation round timelines and project development timelines. This should include advice on where project costs could be lowered, and which project costs would be ineligible for support under the corresponding business model.
- Collaborate with commercial and legal advisers on overarching topics as necessary.

**Provide technical support to help review and update the UK low carbon hydrogen standard in line with the evolving hydrogen economy:**

- Reviewing current policy to ensure it aligns with government objectives.
- Support assessment of LCHS compliance during application rounds.
- Updates to the LCHS data annex.
- Provide advice to inform the expansion of the Standard to include transport and storage emissions and H2 derivatives.
- International alignment of the Standard to facilitate trade.

**Hydrogen Market Analysis and Sector Development**

- Provide market analysis and insights on hydrogen production projects (sector, end use, technology types etc).

- Engineering/technical support to understand the technical requirements to building potential hydrogen/hydrogen derivative trade infrastructure (pipeline and ports) in the UK, including consideration of location/routing for pipelines/ports.
- Support to understand the impacts (e.g. environmental) of transporting hydrogen internationally via pipeline and via ship in the form of derivatives, as well as helping DESNZ develop a more detailed understanding of the processes involved for these transportation methods. Technical and analytical support to understand the wider economic impacts of importing and exporting hydrogen, and its derivatives, on the UK's wider economy.
- Technical and regulatory support to understand what technical/environmental/economic regulations and standards may need to be internationally aligned in order to enable the trade of hydrogen (the molecule) in the future.
- Support work on hydrogen sector development and provide expertise to examine supply chain related issues, including jobs, skills and investment.
- Analyse supply chains that support a hydrogen economy, from production through to end-use, and assess potential issues or opportunities for those supply chains.
- Assess the ability of supply chains to meet future demand as the sector grows.
- Advise on potential mitigations or solutions to address supply chain issues or opportunities identified.
- Provide technical support and analysis for the Clean Industry Bonus Scheme including criteria development; input into the application and assessment process and guidance.
- Technical support may be required to map UKH2 supply chain strengths against priority markets internationally to inform a Sector Exports Plan.
- Technical support to assess and propose effective levers to attract investment and support UKH2 sector companies' growth through exports (e.g. policy/planning/fiscal/skills) in light of a rapidly changing international funding, policy and support landscape for the clean energy transition.
- Potential support to help DESNZ understand the international hydrogen landscape and wider global hydrogen developments – including policy, funding, technological developments – to place the UK in a comparative context and learn lessons from other countries.

**Provide technical and engineering advice to support the development of policies related to the operation and regulation of hydrogen networks, for example market and non-economic frameworks**

- Inputting technical/engineering expertise to support development/testing of hydrogen network regulations and frameworks.
- Help scope and develop solutions for identified technical issues relating to hydrogen infrastructure to inform policy and regulatory development.
- Provide input and technical advice into potential changes to licences and codes where required.
- Collaborate with commercial and legal advisors on overlapping topics.
- Support industry engagement, where appropriate, in development of any necessary changes to licences and codes.

**Deliverables and Outputs**

Outputs will be required in a variety of formats, including reports, presentations, spreadsheets of data and contributions to drafting public facing documents to inform policy development and delivery. Contributions to the design and delivery of hydrogen project assessments will also be required.

Some or all of the following outputs will be expected depending on the work packages specified, we welcome any additional suggested outputs which suppliers feel will enhance the desired outcomes:

- Advice of the relative merits, cons and considerations for a range of different hydrogen production technologies in the context of net zero ambitions.
- Identify and provide advice on technical issues related to a range of end use sectors to help ensure the various hydrogen business model designs work for all sectors.
- Identify technical issues related to consents or regulatory requirements and highlight where there is potential for hurdles or project delays.

- Provide advice (in concise, evidence-based reports), and present (in clear, concise and easy to understand language for non-specialists) recommendations on technical issues relating to the hydrogen production, distribution, storage and usage
- Support the design of competitive processes for project assessment, eligibility and funding allocation
- Provide data (in well organised spreadsheets) on estimated or actual project costs, hydrogen production volumes, technology type, fuel, electricity or natural gas requirements, emissions reduction potential, end user information etc.
- Highlight environmental concerns to be aware of relating to the building and operation of hydrogen and CCUS plants, how different technology types compare and mitigation approaches.
- Integration with other business models (such as for Power and Industrial carbon capture, and CO2 transport and storage), and the wider hydrogen value chain including hydrogen distribution and other energy incentive schemes.
- Check consistency with other associated business models, where appropriate, or provide technical justification for any differences in approaches where there are reasons to do so.
- Identify and advise on technical issues related to cross chain risks
- Technical input into the heads of terms and detailed terms and conditions for the various business model contracts.
- Provide project cost estimates with indication of accuracy or critically review projects' cost proposals.
- Support on ensuring the various hydrogen business models effectively drive indirect benefits – innovation, supply chain, skills.
- Technical reports on projects based on their application to the relevant hydrogen allocation round and subsequent decision to shortlist or reject.
- Technical due diligence reports on projects that are shortlisted and that proceed to negotiations.
- Cost assurance reports on projects that are shortlisted and that proceed to negotiations, following defined cost assessment checkpoints.

**Required Skills and Expertise**

The successful tenderer (or consortium/lead contractor and subcontractors) will have the following skills and capabilities. Your proposal must evidence that the team have proven skills and capability to fulfil this requirement, including:

- Wider energy network knowledge and understanding of gas networks, including network design and transmission systems.
- Familiarity with hydrogen and net zero policy landscape.
- Project delivery experience including delivering and/or advising on hydrogen production projects. As well as an understanding of the project execution and operational risks & needs associated with hydrogen.
- Technical skills and knowledge in hydrogen production technologies such as electrolytic production using renewable energy, Autothermal Reforming (ATR) and Steam-Methane Reforming (SMR) with carbon capture, and hydrogen production using nuclear energy or biomass with or without carbon capture.
- Knowledge of the auxiliary and utility systems required to support these technologies.
- Knowledge of a range of hydrogen and CO2 transport and storage options (including pipelines, shipping, road and geological storage).
- Engineering knowledge and experience in hydrogen end uses e.g. fuel cells and gas turbines for power. Understanding of supply chains that are, or could be, related to hydrogen value chains and technologies, the ability to analyse these supply chains and provide advice and recommendations.
- Experience managing and delivering complex programmes of work.
- Familiarity with legislative and regulatory landscape relevant to hydrogen and carbon capture infrastructure.
- Knowledge of key safety & environmental requirements and regulations relating to hydrogen and carbon capture.

- Strong project management skills and ability to deal with periods of high demand or staff unavailability.
- Strong track record of producing quality advice to customers.
- Strong internal quality assurance procedures.

## 1. Governance and Working Arrangements

1.1. The Supplier will identify a Contract Manager who will act as the primary contact between the Authority and the Supplier. The Authority will identify a Contract Manager counterpart.

## 2. Intellectual Property

2.1. The Authority will own the intellectual property of all deliverables, see Call-Off Schedule 12. The outputs will be for use by DESNZ. The Supplier is not permitted to make reference to this project or publicise their engagement in this project as a case study for marketing purposes or in response to tender opportunities. Its use in other projects or for teaching purposes is also not permitted.

2.2. The Authority reserves the right to share any output with other investment parties. Outputs may be developed primarily for the Authority, but also for other investment parties use. This may require the Supplier to develop a non/reliance letter for co-investors. Confirmation of this is expected to be made at the point a decision is made on which projects can commence due diligence.

## 3. Quality Management

3.1. The Supplier should have measures in place to ensure that **all** deliverables produced are of a high quality. In particular, the final deliverable must be:

- Appropriate for publication by a Government Department.
- **Free from any errors** (such as, but not limited to, factual, grammatical, and formatting errors).
- Appropriately and robustly quality assured; approved by a senior member of the Supplier's team; and supported by a quality assurance log.
- Reflective and inclusive of the proposals made by the Supplier in their original tender.

3.2. If the Authority deems that the final deliverable is of unsatisfactory quality, for example, it contains grammatical errors or is insufficiently quality assured, then the Authority reserves the right to make rounds of comments on areas that require addressing on the final deliverable. The Authority also reserves the right to withhold final payment until a final deliverable of satisfactory quality, as deemed by the Buyer, is delivered.

3.3. The Authority expects **all** deliverables to be of a high quality. However, the Authority appreciates that other deliverables (this meaning those deliverables that are **not** the final deliverable, such as a draft report) may contain some minor errors.

3.4. Suppliers should factor quality assurance measures into workplan timelines.

## 4. Supplier Skill and Knowledge Set

4.1. We would expect the Supplier to have a suitable team who are knowledgeable in the following fields:

4.1.1. All forms of Hydrogen and the Hydrogen market sector
4.1.2. Technical Due Diligence activity
4.1.3. Investment process

## 5. Sub-Contracting

5.1. The Supplier may choose to sub-contract any elements of delivery of this contract. If it chooses to do so, then it must be on a non-exclusive basis. It will be the Suppliers role to manage the output of any sub-contractor and assure their quality. The Authority wishes to have a single point of contact with the Supplier for the delivery of this requirement and does not intend to liaise directly and in isolation with any sub-contracting parties.

## 6. Data Security

6.1. The Supplier must ensure all information received by any party is stored securely and all information is treated as commercially confidential in accordance with the Data Management Schedule of the Contract.

## 7. Business Continuity, Disaster Recovery and Exit Management

7.1. Within the first four weeks of the contract the Supplier is required to produce a brief Business Continuity and Disaster Recovery Plan as well as an Exit Management Plan, in accordance with Call off Contract Schedules 8 and 10. This is to be presented to the Authority for comment and approval.

7.2. The content of these plans will be in accordance with the Schedules referred to and are recommended to be at a Supplier's Corporate level as opposed to developing something bespoke for this Contract. It is noted that these documents are intended to be brief and, subject to the Authority's approval, each to be no more than 3 pages in length.

## 8. Conflict of Interest

8.1. The Authority is taking a risk adverse approach to conflict of interest.

8.2. The Supplier must demonstrate, to the Authority's satisfaction, that any conflict of intertest between it and a third party is fully mitigated before any work with that party can proceed.

8.3. If any Conflict of Intertest were to arise during the contract duration the Authority must be informed at the earliest opportunity. The Authority reserves the right to inform the Supplier to stop work with a project, if it considers the conflict of interest or the mitigation measures proposed to be insurmountable.

## 9. Budget, Payment and Duration

**9.1.** The Maximum Price for the initial Contract Period (3 years) of this Call-Off Contract shall not exceed **£7,500,000 (Ex VAT).**

9.2. The Maximum Price for the optional 12-Month Contract Extension Period shall not exceed a further **£2,250,000 (Ex VAT)** should the Buyer decide to unilaterally exercise its Contract Extension Period option.

9.3. For the avoidance of doubt, the Maximum Price for the initial 3-year Contract Period with the 12-month Contract Extension Period shall not exceed **£9,750,000 (Ex VAT)**.

9.4. For the avoidance of doubt, the Buyer does not warrant or guarantee that a specific number of Work Packages will be added to this Call-Off Contract and does not warrant or guarantee that all of the Maximum Price (budget) shall be paid to the Supplier.

9.5. Each Work Package shall be individually agreed between the Buyer and Supplier as and when required and shall be priced using the Tasking Form template at Annex A to Call-Off Schedule 19 (Call-Off Specification) using the Rate Card specified in Call-Off Schedule 5 (Pricing Details).

9.6. The Authority aims to pay all correctly submitted invoices as soon as possible with a target of 10 days from the date of receipt and within 30 days at the latest in line with standard terms and conditions of Contract. We expect that this will be replicated in any sub-contractor arrangements and the Authority may request evidence that this is the case.

9.7. The Authority reserves the right to amend the Contract to increase the scope of activities required of the Supplier, so long as any additional activities meet the objectives of the Contract. Contract amendments would be managed by a formal variation process and will be made with mutual agreement with the Supplier.

9.8. The duration of this Contract is for 36 months, with an option to extend for an additional 12 months. Decision for extension will be made based on available budget remaining, anticipated continued need for Supplier Services as well as performance of the Supplier throughout the Contract. A decision on if the Contract is to be extended will be made at least four weeks prior to the end of the Call-Off initial period. Any amendments would be required to be agreed by the Authority and the Supplier through Contract Variation process.

## 10. Performance

10.1. To monitor delivery throughout the process, the Authority will produce timelines with ongoing working group discussions. The Authority will also set clear formal check-ins on the status of the key deliverables, checked against a risk register. This will help identify risks of timeline slippage early, and act accordingly to mitigate.

10.2. The Authority will manage the Contract and have regular performance discussions with the Supplier, at least every month. Where the quality of deliverables is failing to meet the Authority's expectations identified in both these requirements and the Supplier's tender submission, the Authority will work with the Supplier to identify measures to remedy these performance issues.

10.3. Where deliverables are taking significant rounds of comment from the Authority prior to signing off as complete, the Authority will only pay the amount given in the Contract and will not pay for additional drafting above and beyond expected. As such engagement with the Authority during the drafting process to ensure that the final documents will be acceptable is essential.

10.4. Service Level KPIs will be implemented for the duration of this contract as detailed in Call Off Schedule 14 (Service Levels). Details on reporting arrangements are included in this Schedule.

## 11. Delivery Location

11.1. It is anticipated that work will predominantly be carried out at the Supplier's premises and meetings will be conducted via MS Teams.

## 12. Social Value

12.1. The Supplier in delivery of this Call-Off Contract will do so to contribute towards the Cabinet Office's Model Assessment Criteria 3.1 to create a diverse supply chain to deliver the contract including new businesses and entrepreneurs, start-ups, SMEs, VCSEs and mutuals and Criteria 3.4 to demonstrate collaboration throughout the supply chain, and a fair and responsible approach to working with supply chain partners in delivery of the contract.

12.2. The Supplier will provide proposals on how it will contribute towards this Criteria as part of the Supplier's proposal. Measures proposed will ideally be linked to the delivery of this Call-Off Contract with detail as to how they will contribute to any Supplier's corporate activities.

12.3. Metrics proposed for reporting on Social Value will be monitored in quarterly contract performance meetings.

**Annex A to Call-Off Schedule 19 (Call-Off Specification) - Work Package Tasking Form template**

| TITLE | | | |
|---|---|---|---|
| **Advisor** | | | |
| **Reference** (to be completed by PMO) | | | |
| **Work Package Owner** (main person responsible for liaising with PMO team & advisor, verifying spend) | | | |
| **Other Contributors** | | | |
| **Analyst/Legal Review** | | | Click or tap to enter a date. |
| **SCS Clearance** (once WP has been costed by advisor) | | | Click or tap to enter a date. |
| **Duration of Work Package** | | | |
| | | | |
| | | | |

| **DESCRIPTION** |
|---|
| *[can include Ask/Scope, Questions, Methodology/Approach, Materials to use etc]* |
| **INTERDEPENDENCIES** |
| *[which pieces of work will feed into this or this feed into? Which hydrogen or other teams will feed into or use this work?]* |
| **CONSTRAINTS** |
| *[what are the constraints within DESNZ for this piece of work? Why are advisors required?]* |
| **BACKGROUND** |
| *[more detail on the work done to date, context, relevant documents etc]* |
| **ASSUMPTIONS** |
| *[e.g. programme milestones detailed below are maintained, DESNZ will review drafts in time for the below delivery deadlines to be met, DESNZ will produce provide work for review by...]* |

| **WORK PACKAGE DELIVERABLES** | | | |
|---|---|---|---|
| ***DESCRIPTION*** | ***FORMAT*** | ***FOR PUBLICATION?*** | ***DATE*** ***(Estimate if not known)*** |
| | | | Click or tap to enter a date. |
| | | | Click or tap to enter a date. |

| | | | |
|---|---|---|---|
| | | | Click or tap to enter a date. |
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| **MILESTONES** | |
|---|---|
| This work package contributes to the key programme milestones of: | |
| ***DESCRIPTION*** | ***DATE*** ***(Estimate if not known)*** |
| | Click or tap to enter a date. |
| | Click or tap to enter a date. |
| | Click or tap to enter a date. |

| **COST BREAKDOWN** (to be completed by advisor) |
|---|
| |

| **ANY ADDITIONAL INFORMATION** |
|---|
| |

| **ANY ADVISOR COMMENTS** |
|---|
| |

| **FINALISED: ADVISORS SENT CONFIRMATION TO PROCEED.** | Click or tap to enter a date. |
|---|---|