



Department for
Energy Security
& Net Zero

CONTRACT FOR THE PROVISION OF

Development of Hydrogen-ready Industrial Boiler PAS

TO DEPARTMENT FOR ENERGY SECURITY & NET ZERO (THE CONTRACT OFFER LETTER)

(Purchase Order Number)

Not applicable – recharge is in place via BSI Government sponsor which is the Department for Business & Trade (DBT)

This Contract is dated **1st December 2024** and is made between: -

1. **The Secretary of State Department for Energy Security & Net Zero** (the “Authority”) of 3-8 Whitehall Place, London SW1A 2EG, acting as part of the Crown;

and

2. **BSI Standards Limited (the “Contractor”) whose registered office is at 389 Chiswick High Road, London, W4 4AL.**

INTRODUCTION

- (A) On **10th November** the Authority issued a Request for quotation for the provision of **Development of Hydrogen-ready Industrial Boiler Publicly Accessible Standard (PAS)** including the specification a copy of which is set out in Schedule 1 (the “Specification”).
- (B) In response the Contractor submitted a proposal dated **3rd October 2024** and entitled **Statement of work DESNZ PAS 4445 Phase 2** explaining how it would provide the Services a copy of which is set out in Schedule 2 (the “Proposal”).

The parties agree as follows:

1. SUPPLY OF SERVICES AND PRICE

In consideration of payment by the Authority to the Contractor of the sums set out in Schedule 4 (exclusive of Value Added Tax) (the “Contract Price”) and in accordance with (a) the Specification; (b) the Contractor’s Proposal; and (c) the Authority’s Standard Terms and Conditions of Contract for Services (the “Standard Terms”) (a copy of which is attached at Schedule 3); the Contractor shall provide the



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Services described in the Specification and the Contractor's Proposal to the Authority.

2. COMMENCEMENT AND CONTINUATION

This Contract shall commence on **1st February 2024** and subject to any provisions for earlier termination contained in the Standard Terms shall end on **30th June 2025**.

3. TERMS AND CONDITIONS

3.1 The Standard Terms shall form part of this Contract.

3.2 The Standard Terms shall be amended as per paragraph 2 "BSI PAS Special Terms" of Schedule 3 to this Contract Offer Letter. The amendments in paragraph 2 "BSI PAS Special Terms" of Schedule 3 shall take precedence over the Standard Terms at paragraph 1 of Schedule 3.

These amendments are for the purposes of this Contract only and do not set a precedent for future contracts between the Contractor and the Authority.

3.3 The Contractor's terms and conditions of business shall not apply to this Contract.

3.4 This Contract is formed of these clauses and the Schedules hereto. Any other attachments are provided for information purposes only and are not intended to be legally binding. In the event of any conflict or inconsistency, the documents prevail in the following order:

- a) these clauses;
- b) the Standard Terms (as set out in Schedule 3);
- c) the Specification (as set out in Schedule 1) and Contract Price (as set out in Schedule 4); and
- d) finally, the Contractor's Proposal (as set out in Schedule 2)

(save that where the Contractor's Proposals contain a provision requiring [a higher standard of service provision, the Authority may (at its discretion and for no additional remuneration confirm that such higher standard applies).



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4. CONTRACTOR'S OBLIGATIONS

- 4.1 Where the Contractor is supplying goods to the Authority these shall be delivered to the Authority in full compliance with the Specification and shall be of satisfactory quality and fit for purpose. Where the Contractor is performing Services for the Authority it shall do so in accordance with the Specification and exercise reasonable skill and care.

5. MANAGEMENT AND COMMUNICATIONS

- 5.1 The Contractor shall perform the Services under the direction of the Authority.
- 5.2 Any direction by the Authority may be given by **[REDACTED]** (the "Contract Manager") who is an officer in the Authority's **Hydrogen and Industrial Carbon Capture (HICC) 3- 8 Whitehall Place, London, SW1A 2EG** or such other person as is notified by the Authority to the Contractor in writing. All queries (including any notice or communication required to be provided under this Contract) to the Authority from Contractor shall initially be addressed to the Contract Manager
- 5.3 The Contractor appoints **[REDACTED]** based at **BSI Group, 389 Chiswick High Road, London, W4 4AL** to be the Contractor's first point of contact for this Contract. All queries (including any notice or communication required to be provided under this Contract) to the Contractor from the Authority's Contract Manager shall initially be addressed to the Contractor's first point of contact.
- 5.4 The Contractor's first point of contact and the Contract Manager shall meet as often as either the Contractor or the Authority may require to review the Contractor's performance of the Contract.

6. INVOICES AND PAYMENT

- 6.1 Subject to the Contractor providing the Services to the Authority in accordance with this Contract and submitting invoice/s to the Contract Manager in the manner reasonably required by the Contract Manager payment will be made by the Authority to the Contractor in accordance with condition 17 of the Standard Terms.



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7. TRANSPARENCY

- 7.1 The Authority will publish the Contract and the Schedules hereto on a designated government internet site, using the redacted version of the contract attached. (That version is for illustrative purposes only and does not form part of the Contract). The Authority has made the decision on the specific redactions to be made in light of the exemptions under the Freedom of Information Act 2000 (FOIA) and Condition 40 of the Standard Terms.

However, subject to those redactions, the rest of the Contract and Schedules will be published in full, in accordance with the government's policy on the publication of contracts, which forms part of the government's transparency agenda, and the Contract is therefore entered into on the basis of such publication taking place.

The Authority emphasises that its decision to redact information on this occasion does not preclude it publishing such information in the future in the context of other contracts. Neither does it preclude the disclosure of such information in the circumstances of a request for disclosure under FOIA or the Environmental Information Regulations 2004 (EIR) or where such disclosure is required by virtue of any other legal requirement. In such cases, the Authority would need to consider disclosure in the context of the particular circumstances of the request or requirement concerned.



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Signed by the parties' duly authorised representatives: -

For the Secretary of State for Department for Science, Innovation &
Technology & Department for Energy Security & Net Zero

Signature: [REDACTED]

Print Name: [REDACTED]

Job Title: COMMERCIAL LEAD (G7)

Date: 8/1/2025

For the Contractor

Signature: [REDACTED]

Print Name: [REDACTED]

Job Title: DIRECTOR

Date: 8/1/2025



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The following Schedules *[if applicable and Annexes]* form part of this Contract:

Schedule 1	The Authority's Specification
Schedule 2	The Contractor's Proposal
Schedule 3	The Authority's Standard Terms & Conditions of Contract for Services
Schedule 4	Contract Price
Schedule 5	Not Used
Schedule 6	Not Used



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Schedule 1 – Authority’s Specification

BEIS 1 pager – Developing a PAS for Hydrogen-ready large boilers

Background:

1. Fuel switching to low carbon hydrogen can decarbonise emissions from large boilers used for industrial processes or complex building heat. Hydrogen-ready equipment, able to fire natural gas but designed for conversion to hydrogen, could lower costs and increase the speed at which fuel switching can happen.
2. BEIS ran a call for evidence and a study to better understand if government should enable or require industrial boiler equipment to be hydrogen-ready. Subject to approval, BEIS intends to publish the government response and research study in December 2022 and include a commitment to sponsor a PAS for hydrogen-ready industrial boiler equipment.

Scope:

3. The aim of the PAS is to align the hydrogen-ready large boiler market, create a shared definition for ‘hydrogen-ready’ large boilers and give confidence to end-users that this equipment enables faster and cheaper fuel switching to hydrogen than would otherwise be the case. We expect the PAS will focus on boilers used in industrial and commercial settings. Scoping will determine the target capacity and types of boilers in scope, though could cover equipment $\geq 500\text{kWth}$ or $\geq 1\text{MWth}$.
4. We expect the scope of the PAS may consider:

Pre-conversion (natural gas)	Conversion	Post-conversion (100% hydrogen)
Design	Process of conversion	Re-commissioning
Installation		Operation
Commissioning		Maintenance
Operation		
Maintenance		

5. We expect hydrogen-ready industrial boiler equipment to meet the latest UK safety and environmental regulations.
6. We expect the need for a scoping phase with relevant experts prior to the formal PAS process to help ensure there is industry consensus on the scope.

Audience:

7. The primary audience of the PAS is OEMs of large boiler equipment, boiler operators and installation, commissioning, and maintenance service companies.

Timeline:

8. BEIS would like to begin the PAS process in Q1 of 2023, with the aim of publishing a PAS within 12 months. This timescale would help increase numbers of hydrogen-ready large boilers that are deployed ahead of hydrogen becoming



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available, potentially resulting in cost and carbon savings and giving confidence to the wider hydrogen economy.

Interaction with existing standards:

9. The PAS should reference existing standards (including IGEM standards) where relevant. BEIS would like BSI to engage with IGEM closely throughout the PAS process.

Budget:

10. Subject to contractual agreement, we estimate costs will be comparable development costs for PAS 4444 for hydrogen-fired and hydrogen-ready gas appliances.

Annex A: Draft text for **government's commitment to sponsor a PAS in the** Government response to the call for evidence on hydrogen-ready industrial boilers

[Decarbonising industrial processes is an important part of achieving our net zero ambitions, and a likely early off-taker of low carbon hydrogen. We will take steps to ensure this can happen by phasing out unabated fossil fuel burning in industry and supporting possible replacements. Therefore, BEIS intends to sponsor the British Standards Institution (BSI) to develop a Publicly Available Specification (PAS) for large boiler equipment that is hydrogen-ready. This standardisation document will be aligned to PAS 4444, developed for hydrogen-fired and hydrogen-ready gas appliances.

We anticipate this PAS will develop a standardised definition for what constitutes a large 'hydrogen-ready' boiler that will give confidence to end-users that this equipment can enable faster and cheaper fuel switching to hydrogen than would otherwise be the case. The PAS development process will engage a range of relevant stakeholders, with the aim to publish the PAS in early 2024.

BEIS will also continue to assess the merits requiring large boilers to be hydrogen-ready through product regulation, environmental permitting, or a combination of the two. The findings of this work may form the basis for further consultation on proposals for changes to policy for boiler equipment.]

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Schedule 2 – Contractor's Proposal

[REDACTED]

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Schedule 3 – Standard Terms and Conditions

1. DESNZ & BSI Agreed Standard Terms and Conditions



DESNZ STANDARD
TERMS AND CONDITI



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2 BSI PAS Special Terms

Capitalised terms used in these Standards Development Terms, unless defined herein, shall have the meaning provided in the DESNZ Standard Terms and Conditions (the **“Standard Terms and Conditions”**).

These terms shall have the effect of special terms of the Contract and shall take precedence over any terms set out in the Standard Terms and Conditions

1. **Governance document.** The Authority acknowledges that when creating a Publicly Available Specification (PAS) or Flex Standard, the Contractor must adhere to the relevant governance document on the standards creation process, *PAS 0 or the Flex 0* (as amended from time to time) and its obligations as the UK's National Standards Body, even if this is contrary to any provisions of the Standard Terms and Conditions including those specified in clause 21. Notwithstanding the foregoing, If a KPI or delivery item is not delivered as stated in the contract and a resolution cannot be agreed, the Contractor shall escalate the issue to the Contractor Governance and Policy manager to confirm or reject that a contract breach has occurred and inform DESNZ directly.
2. **Services.** The Contractor shall do what is reasonable to comply with the timetable provided for the Services as set out in Schedule 1. For the avoidance of doubt time is not of the essence in the performance of the Services and the ultimate decision whether to publish a PAS or a Flex Standard rest with Contractor's Director of Standards.
3. **The Steering Group, Review Panel and Advisory Group.** It is essential that procedures relating to the composition of the steering group and review panel (for PAS) and advisory group (for Flex Standard) are open and transparent. The Contractor shall consult with the Authority on the composition of the steering group, review panel and advisory group, as applicable, but the decision of the Contractor shall be final in this regard. At the time of establishing the steering group, and advisory group, as applicable, the Contractor shall require and obtain each member's signature to the Steering Group /Advisory Group Protocol at Attachment 1 to this Schedule 3 paragraph 2 (the **“Protocol”**). The Protocol shall be substantially in the form set out at Attachment 1 and shall be signed by the individual from time to time representing an organisation on the steering group or the advisory group. Failure of any member to sign the Protocol will result in that person being immediately removed as a member of the steering group or the advisory group.
4. **Change Control.** The Services or the timetable relating to them may need to be adapted. Where changes are required, the Contractor shall not proceed with the amended Services or timetable without the written agreement of the Authority, email being sufficient. If the Authority does not agree to any proposed changes to the Services or timetable and it becomes impossible for Contractor to continue with the standard within the 'project scope' and timeline specified in Schedule 2 (The Contractor's Proposal), the Contractor shall be entitled to terminate this Contract

on one week's notice to the Authority and neither the Contractor nor the Authority shall have any further liability to the other save for the Authority's obligation to pay the Contractor a proportion of the Charges as set out below in paragraph 8 (Consequences of Services cancellation).

5. Intellectual Property Rights in the Standard.

- a. All Intellectual Property Rights (as defined in the Standard Terms and Conditions) in and to any document or content connected to a PAS or Flex Standard or the development of a PAS or Flex Standard including but not limited to drafts, working documents, reports or similar ("**New Work**") shall vest in the Contractor. In the event that the law deems that any Intellectual Property Rights in the New Work are held by the Authority then as further consideration for the provision of the Services the Authority hereby exclusively and irrevocably assigns all present and future copyright in and to the New Work in any and all media now known or invented in the future to the Contractor and will do any other thing reasonably requested by the Contractor to ensure that the assignment is valid.
- b. All Intellectual Property Rights in any materials provided by the Authority to the Contractor for the purposes of the Contract (the "**Authority Material**") shall remain the property of the Authority. The Authority grants to the Contractor a royalty-free, non-exclusive, non-transferable licence to use the Authority Materials as required for the sole purpose of enabling the Contractor to perform its obligations under the Contract, including future sale, marketing, and distribution of the PAS.
- c. Any BSI standard whether current or withdrawn remains available in accordance with the terms for access to such a standard as specified in Schedule 2 (the Contractor's Proposal) and therefore the content may be used for continuity. A licence to use content which is no longer or never has been part of a current standard may be requested on a case-by-case basis.
- d. On termination of the Contract, this paragraph 5 shall remain in force. This paragraph 5 shall replace Condition 24 in the Standard Terms and Conditions.

6. **Revision of the standard.** In the months (18 to 24 months for a PAS) following the publication of the standard the Contractor may consider (a) initiating a review of the standard; or (b) using the standard as a source for the creation of a PAS (in the case of a Flex Standard), formal British Standard, European Norm or ISO. The Authority acknowledges and agrees that if the Contractor in its sole judgement and at its sole discretion decides that neither (a) nor (b) is appropriate for any reason, it may withdraw the standard from circulation.

7. **Services cancellation:** The delivery of the Services shall commence on the date specified in the Contract Offer Letter and shall continue until the delivery of the final outputs as specified in the Contractor's Proposal (Schedule 2) or until terminated in accordance with the terms of the Contract. The Authority or Contractor may terminate the Contract at any time on giving one month's written notice to the other.



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8. Consequence of Services Cancellation. Any early Services cancellation will not affect Contractor's ownership of the copyright in the standard, the Contractor's rights to revise the standard, or any liability limits set out in the Contract. On termination of the Contract, this paragraph shall remain in force.

9. Confidentiality. Any standard development documentation may be publicly disclosed where this is necessary in order to comply with the relevant governance document, PAS 0 or BSI Flex 0; and the parties may disclose the same to their staff under conditions of confidentiality (and then only to the extent required for the proper performance of the Contract or related agreements).

10. Additional Edits to the Standard Terms

a. Clause 24(6) shall be deleted and replaced with the following:

i. "Not Used"

b. Clause 26(5) shall be deleted and replaced with the following:

i. "Subject to clause (6), each Party's total aggregate liability in each Contract Year under this Contract (whether in tort, contract, under an indemnity or otherwise) is no more than 300% of the estimated annual Charges due under this Contract"

c. Clause 26(6) shall be deleted and replaced with the following:

i. "Nothing in this Contract shall limit or exclude any of the following (nor shall any liabilities in respect of the following in any way cause or contribute to the erosion of any liability cap): liability for death or personal injury caused by its negligence, or that of its employees, agents or subcontractors; or any liability that cannot be excluded or limited by Law"

d. Clause 26(7) shall be deleted and replaced with the following:

i. For the Contractor's indemnification obligations under this Contract, such indemnities are subject to the Authority's obligation to demonstrate its costs and losses and to mitigate all such costs and losses and are expressly limited to liabilities incurred by the Authority as a result of 3rd party claims.

e. Clause 33(4) shall be deleted and shall not apply to the Contractor's delivery of the services under the Contract.

f. The definition of Force Majeure shall be updated as follows:

"Force Majeure" means any of the below circumstances provided that they are not within a party's reasonable control including:

- a. acts of God, flood, drought, earthquake or other natural disaster;*
- b. epidemic or pandemic;*

- c. terrorist attack, civil war, civil commotion or riots, war, threat of or preparation for war, armed conflict, imposition of sanctions, embargo, or breaking off of diplomatic relations;*
- d. nuclear, chemical or biological contamination or sonic boom;*
- e. collapse of buildings, fire, explosion or accident;*
- f. interruption or failure of utility service;*
- g. governmental or regulatory orders; and*
- h. acts of public authorities.*

g. The obligations contained in clause 10 (Confidentiality) of the Standard Terms and Conditions shall continue to apply for a period of 12 years after the expiry or termination of the Contract.

h. Clause 18.2 shall be edited to read as follows:

The Contractor shall permit the Authority acting by its officers, servants and agents or independent auditor on request and at all reasonable times to examine all accounts, records and vouchers in respect of the Services at the offices of the Contractor or at such other places as the Authority shall direct, and to take copies of such accounts, records and vouchers and the Contractor shall provide the Authority or its independent auditor with such explanations relating to that expenditure as the Authority may request.

i. For Open Book requests 23 (4) this shall be only granted where appropriate on a project-by-project basis and shall not apply to fixed price contracts.

j. Clause 19(1) shall be edited to read as follows:

The Authority may set off any amount owed by the Contractor to the Crown or any part of the Crown (including the Authority) against any amount due to the Contractor under this Contract.



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Attachment 1: Protocol

I consent to my email and telephone number being circulated to the other Steering Group members for the purposes of drafting and developing the PAS Standard. Yes/No*
(*delete as appropriate)

I confirm that I have agreed to become a Member of the Steering Group/ Advisory Group for:

[PROJECT NAME]

and that I will abide by the following terms while I am a member.

1. While on BSI premises, I shall comply with all BSI requirements and instructions as to health and safety and security.
2. At the start of each Steering Group/ Advisory Group meeting at which I am present, I shall notify the BSI project manager of my attendance and complete and sign the attendance sheet that shall be made available to me by the BSI project manager.
3. I shall conduct the business of the Steering Group/ Advisory Group in accordance with the procedures communicated to me by the BSI project manager from time to time.
4. I hold all of the intellectual property rights in all material that I may contribute during the business of the Steering Group/ Advisory Group and where I do not, if it is required, I confirm that I have all relevant consents from the holder(s) of those rights and am authorized to contribute such material to the Steering Group/ Advisory Group for the purpose of the development and exploitation by BSI of the PAS/ Flex Standard.
5. The business of the Steering Group/ Advisory Group will lead to the creation of a new work ("New Work"). I acknowledge that all copyright in the New Work will vest in The British Standards Institution exclusive of any competing right either I or any third party may have. To the extent that the law may deem any copyright in the New Work to be held by me, in consideration of The British Standards Institution accepting contribution of materials from me, I assign the copyright in the New Work (or any part of it) to The British Standards Institution and will do any other thing reasonably requested of me by The British Standards Institution to ensure that the assignment is valid.
6. There is no conflict of interest created by my becoming a member of the Steering Group/ Advisory Group. If there is any likelihood of a conflict of interest, I shall immediately inform the BSI project manager and understand that the prospective conflict of interest may disqualify me from further participation in the business of the Steering Group/ Advisory Group.



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7. I shall keep all Steering Group business strictly confidential save for consulting with colleagues on a need-to-know basis on matters agreed within the Steering Group/ Advisory Group and shall not make any public statement about the participation of other members of the group (including their identity) or about Steering Group/ Advisory Group business.



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Schedule 4 – Contract Price

1. Calculation of the Contract Price

The Contract Price shall be calculated on the basis of the rates and prices set out in this Schedule. The Contract Price shall represent the sole remuneration due to the Contractor under this Contract.

2. Contract Price for Fixed Price is £81,900.00 exclusive of VAT.

3. Contract Price for Regular Periodic Milestones

Date on which invoice can be issued	Amount of Contract Price Due (£)	Requirement on Contractor to Invoice
Preparation of draft for consultation	[REDACTED]	[REDACTED]
Preparation of draft for Steering Group final consultation	[REDACTED]	[REDACTED]
Publication	[REDACTED]	[REDACTED]
TOTAL	81,900.00	Excl of VAT

4. Contract Price for Rates Based Payment – Not applicable

5. General

Note: additional provisions required for indexation - not applicable

Note: amounts are exclusive of VAT.

