8th April 2022

AGREEMENT FOR THE LOW CARBON HYDROGEN BUSINESS MODEL

INDICATIVE HEADS OF TERMS

Note: these draft indicative heads of terms are subject to the "Disclaimer" section at the front of the Government response to the consultation on a Low Carbon Hydrogen Business Model to which they are related.

Introductory Notes

These Heads of Terms are preliminary and indicative draft terms for the agreement for the low carbon hydrogen business model (the **"Low Carbon Hydrogen Agreement"**). They provide a framework for the principal terms and conditions that will or are expected to be included in the Low Carbon Hydrogen Agreement for initial projects and do not constitute definitive drafting of the Low Carbon Hydrogen Agreement's terms.

These Heads of Terms should be read in conjunction with the document **'Government response to the consultation on a Low Carbon Hydrogen Business Model'**, 8th April 2022.

Where relevant, we have commented below on the potential similarities and differences between the Low Carbon Hydrogen Agreement and (1) the Standard Contracts for Difference (CfD) Terms and Conditions for Allocation Round 4 (the **"AR4 CfD"**) for low carbon electricity, and (2) the Heads of Terms for the Dispatchable Power Agreement (the **"DPA"**) and the Heads of Terms for the Industrial Carbon Capture Contract (the **"ICCC"**) for the CCUS programme (together, the **"CCUS Programme HoTs"**).

These Heads of Terms also consider the potential interactions between the Low Carbon Hydrogen Agreement and (1) the Low Carbon Hydrogen Standard being developed by BEIS, and (2) capex co-funding delivered via the Net Zero Hydrogen Fund.

These Heads of Terms do not indicate any willingness or agreement on the part of the Department for Business, Energy & Industrial Strategy (**"BEIS"**) to enter into, or arrange the entry into, the Low Carbon Hydrogen Agreement. These Heads of Terms do not constitute an offer and are not capable of acceptance.

In connection with the above, given the Heads of Terms are preliminary and indicative only, the provisions set out therein are subject to further consideration and development by BEIS. A number of the provisions and terms which require particular consideration and development (including where BEIS is yet to make decisions relating to policy matters, commercial issues, risk allocation, and the allocation of the Low Carbon Hydrogen Agreement) have been square bracketed (with footnotes) in the Heads of Terms. BEIS reserves the right to review and amend these square bracketed provisions, and all other provisions set out in the Heads of Terms.

SECTION A – FRONT END AGREEMENT

No.	Subject	Terms
1.	Overview	The contract structure of the Low Carbon Hydrogen Agreement will likely follow the AR4 CfD, DPA and ICCC, where each agreement comprises two instruments: (i) the front end agreement and (ii) the standard terms and conditions. The front end agreement will be a bespoke document that contains project-specific information relating to each Producer, including pricing components, capacity, and particulars of the Facility and the Producer to which the Low Carbon Hydrogen Agreement applies. The standard terms and conditions will be a set of contractual terms governing matters which will be applicable to all Low Carbon Hydrogen Agreements unless otherwise specified in the front end agreement (e.g. certain provisions may only apply to specific technology types). Producers who are allocated a Low Carbon Hydrogen Agreement will sign the front end agreement, which will then incorporate the standard terms and conditions.

SECTION B – STANDARD TERMS AND CONDITIONS

No.	Subject	Terms
1.	Parties	The parties to the Low Carbon Hydrogen Agreement will be the Hydrogen Counterparty[1] and the Producer (each, a **"Party"** and together the **"Parties"**). The Parties intend to be legally bound by the Low Carbon Hydrogen Agreement which will be a private law, commercial contract.
2.	**Term, Milestone Requirement and Conditions Precedent**	
2.1	Term	BEIS expects the Low Carbon Hydrogen Agreement to have a contract term between 10 and 15 years. This reflects: (i) the precedents set by the low carbon electricity CfD and CCUS Programme HoTs; (ii) the potential time for this nascent hydrogen market to develop; and (iii) a balance between providing price support certainty for Producers for a proportionate and reasonable period, whilst not locking in production pathways for the long term.
2.2	Commencement	The Low Carbon Hydrogen Agreement will commence on the earlier of the "Start Date" and the last day of a specified "Target Commissioning Window" of [*to be determined*] months (which will be adjusted day-for-day for any delays that occur due to "Force Majeure", discussed in further detail below). BEIS is still considering other events which are beyond the control of the Producer, the occurrence of which may provide time relief under the Low Carbon Hydrogen Agreement. Therefore, if the Producer fails to commission the Facility by the end of the Target Commissioning Window, the term of the Low Carbon Hydrogen Agreement will commence and the 10-15 year term will start to erode. However, payments under the Low Carbon Hydrogen Agreement will not commence unless and until the Start Date occurs. This is to incentivise the relevant Producer to commission the Facility as soon as reasonably practicable following the execution of the Low Carbon Hydrogen Agreement.

[1] Note to Reader: The identity of the Hydrogen Counterparty is to be determined.

No.	Subject	Terms
2.3	Initial Conditions Precedent	It is envisaged that there will be two sets of conditions precedent, the "Initial Conditions Precedent" and the "Operational Conditions Precedent", similar to the AR4 CfD. The "Initial Conditions Precedent" will be designed to ensure that the Producer meets certain legal/regulatory requirements and conditions relating to the Low Carbon Hydrogen Agreement immediately following the date of the agreement. The satisfaction of these requirements and conditions will need to be evidenced in a form and content satisfactory to the Hydrogen Counterparty, and may include: (a) the Producer's entry into certain key project documents [*such as, where applicable, a hydrogen offtake agreement(s), gas/electricity grid connection agreements, and CO_2 T&S construction/connection agreement(s)*]; (b) the facility description (including process flow diagram and location of metering equipment and supply points); (c) planning permission; and (d) corporate approvals.
2.4	Milestone Requirement	It is envisaged that the Producer will be required to demonstrate within a certain period of time that it is committed to the Project by evidencing: (a) actual spend of at least a minimum percentage [*to be determined*] of "Total Project Commissioning Costs"; or (b) fulfilment of specified "Project Commitments", both similar to the AR4 CfD requirements. This is to deter speculative or underdeveloped projects from applying for a Low Carbon Hydrogen Agreement (over and above any primary checks prior to this point), and to ensure that budget remains committed only to projects that demonstrate sufficient progress. The Hydrogen Counterparty will be responsible for determining the robustness of the evidence submitted by the Producer.
2.5	Operational Conditions Precedent	For the Start Date to occur, the Producer will be expected to satisfy a number of "Operational Conditions Precedent". These may include: (a) evidence that the Producer has commissioned an Installed Capacity of not less than [*to be determined by BEIS*]% of the Installed Capacity Estimate plus evidence that the Facility has been commissioned, e.g. proof that industry standard commissioning tests have been carried out and that (if applicable) the Facility is connected to the CO_2 T&S Network; (b) evidence that the Facility (including the hydrogen volumes produced by the Facility) can produce hydrogen that meets the requirements of the Low Carbon Hydrogen Standard (as further discussed at item 7.3 (*Compliance*)); (c) evidence that the Facility complies with specified metering [2] requirements; and (d) [*others*][3]
2.6	Expiry Date	The **"Expiry Date"** will be the 10th-15th anniversary (depending on the precise term length) of the earlier of the Start Date (as discussed

[2] Note to Reader: Subject to the applicable technology type, the metering requirements could include gas, electricity, H2 and CO_2 (where applicable).

[3] Note to Reader: Further Operational Conditions Precedents may be required.

No.	Subject	Terms
		in item 2.2 (*Commencement*)) and the last day of the Target Commissioning Window. The Low Carbon Hydrogen Agreement will expire on the Expiry Date unless it is terminated earlier in accordance with its terms. Please see section 3 (*Termination and Consequences of Termination*) for a discussion on early termination of the Low Carbon Hydrogen Agreement.
3.	**Termination and Consequences of Termination**	
3.1	Pre-Start Date Termination	Similar to the AR4 CfD, the Low Carbon Hydrogen Agreement will contain various rights for the Hydrogen Counterparty to terminate the Low Carbon Hydrogen Agreement prior to the occurrence of the Start Date where the Producer fails to make sufficient progress in developing the Facility. Such rights will ensure that Low Carbon Hydrogen Agreement funding that has been committed to support the deployment of low carbon hydrogen production facilities is not tied up indefinitely in a project that has no realistic prospect of being commissioned. The Low Carbon Hydrogen Agreement may include the right (but not the obligation) for the Hydrogen Counterparty to terminate the Low Carbon Hydrogen Agreement where: (a) Initial Conditions Precedent: the Producer fails to fulfil the Initial Conditions Precedent within the specified time after the date of the Low Carbon Hydrogen Agreement, similar to the position under the AR4 CfD; (b) Milestone Requirement: the Producer fails to fulfil the Milestone Requirement before the Milestone Delivery Date. The Milestone Delivery Date will be adjusted day-for-day for any delays that occur due to Force Majeure (and potentially other events outside the Producer's control to be specified); (c) Longstop Date: the Producer fails to satisfy the Operational Conditions Precedent by a specified "Longstop Date". The Longstop Date will be adjusted day-for-day for any delays that occur due to Force Majeure (and potentially other events outside the Producer's control to be specified); (d) Producer Default Termination: if a Producer default event (as detailed in item 3.3 (*Producer Default Termination*)) occurs and is continuing at any time prior to the Start Date; and (e) [*other*][4].
3.2	Consequence of Pre-Start Date Termination	A pre-start date termination will be on a no-liability basis under the Low Carbon Hydrogen Agreement.
3.3	Producer Default Termination	The default termination provisions in the Low Carbon Hydrogen Agreement are likely to follow the AR4 CfD by giving the Hydrogen Counterparty the right to terminate the Low Carbon Hydrogen Agreement for Producer events of default comprising: (a) insolvency; (b) breach of key obligations relating to ownership of the Facility, no

[4] Note to Reader: BEIS is considering whether other pre-start date termination events are included.

No.	Subject	Terms
		assignment and fraud; (c) breach of key obligations relating to metering; (d) credit support default; and (e) non-payment which is not rectified within a specified cure period. In addition, BEIS is considering whether to include the following Producer events of default: (f) where, after the Start Date, the Producer fails to remedy a prolonged period where the hydrogen produced by the Facility fails to meet the Low Carbon Hydrogen Standard (within a period to be determined); and/or (g) where the Producer's NZHF GFA is terminated due to Producer breach or default (as per the ICCC HoTs). The intention of (f), if included, would be to ensure that BEIS is only supporting projects that produce low carbon hydrogen in accordance with the Low Carbon Hydrogen Standard. BEIS is also considering whether there are other termination events that are specific to the hydrogen business model that should be included in the Low Carbon Hydrogen Agreement.
3.4	Consequences of Default Termination	BEIS is considering the appropriate approach in respect of the consequences of a Producer default termination.
3.5	No Producer termination right	BEIS is considering whether to adopt the position in the AR4 CfD and the CCUS Programme HoTs, whereby the Producer would not be entitled to terminate the Low Carbon Hydrogen Agreement unilaterally before the Expiry Date.
3.6	Termination for Prolonged Force Majeure	BEIS may include a Hydrogen Counterparty right to terminate the Low Carbon Hydrogen Agreement where, prior to the Milestone Satisfaction Date, the Producer is significantly delayed in achieving the Start Date due to a continuing, unresolved Force Majeure. Such right has been proposed for inclusion in the CCUS Programme HoTs to ensure that committed funding is not tied up indefinitely in a project that has no realistic prospect of being commissioned.
3.7	Consequence of Termination for Prolonged Force Majeure	Similar to the CCUS Programme HoTs, if this termination event is included in the Low Carbon Hydrogen Agreement, termination will be on a no-liability basis.
3.8	Termination for Prolonged CO_2 T&S Unavailability	For a CCUS-Enabled Facility connected to the CO_2 T&S Network, BEIS is considering following the CCUS Programme HoTs and including a Hydrogen Counterparty termination right in the event that a Facility is prevented from accessing the CO_2 T&S Network for a continuous period (with such period to be determined).
3.9	Consequence of Termination for Prolonged CO_2 T&S Unavailability	BEIS is considering the appropriate approach in respect of the consequences of termination for prolonged CO_2 T&S unavailability.
4.	**Payments and Billing**	
4.1	Difference Amount	The Producer will be paid a premium, calculated as the difference between the Strike Price and the Reference Price (discussed immediately below) for each unit of hydrogen sold (the **"Difference Amount"**). This payment is intended to provide the Producer with price certainty, by enabling the Producer to cover the cost of low carbon hydrogen production and an allowed return on investment

No.	Subject	Terms
		pursuant to a combination of the Difference Amount and the amount received by the Producer through sales of hydrogen volumes. This approach should also achieve value for money for Government, given it is expected that the size of the Difference Amount payable by the Hydrogen Counterparty to the Producer could reduce in time as the hydrogen market develops. Payments will be made on a £ per MWh (higher heating value (HHV)) basis. This unit has been selected so that the Strike Price, the Natural Gas Price and the Achieved Sales Price for hydrogen can be compared on a like-for-like basis. In particular, HHV was chosen because it reflects the full energy potential of the fuel and enables a comparison with the Natural Gas Price, which is reported in HHV in the UK. Payments will be two-ways, with the Producer paying the Hydrogen Counterparty the difference between the Reference Price and the Strike Price if the Reference Price exceeds the Strike Price.
4.2	Trigger for Payment	Payment under the Low Carbon Hydrogen Agreement will be conditional on: (a) the sale of hydrogen; and (b) the volumes of hydrogen produced and sold complying with the Low Carbon Hydrogen Standard.
4.3	Strike Price	The **"Strike Price"** (expressed in £ per MWh (HHV)) will reflect the price a Producer needs to achieve to cover its costs of low carbon hydrogen production and an allowed return on investment. BEIS expects the level of the Strike Price and cost components to vary for different low carbon hydrogen technology types. BEIS is considering the potential constituent elements of the Strike Price and is minded to include the following within the calculation of the Strike Price (which will be negotiated on a project-by-project basis, although BEIS is still considering this position). This list is not exhaustive: (a) capex and opex associated with the construction and operation of the Facility (excluding capex funded by the NZHF GFA); (b) an allowed return on investment; (c) capex, but not opex, associated with small-scale hydrogen transport infrastructure (negotiated on a project-by-project basis by taking several factors into account including necessity, affordability and value for money for Government); and (d) capex and/or opex associated with a small-scale hydrogen storage infrastructure (negotiated on a project-by-project basis by taking several factors into account including necessity, affordability and value for money for Government). In relation to the costs referred to in limbs (c) and (d), the proposed position reflects a pragmatic approach when considering whether to support small scale hydrogen transport and storage costs for initial projects awarded a Low Carbon Hydrogen Agreement. The exclusion of opex associated with hydrogen transport infrastructure is to incentivise efficient hydrogen transport approaches, while also providing producers with flexibility to change their transport approach as the market develops and end users and offtakers change.

No.	Subject	Terms
		BEIS will consider how any hydrogen T&S infrastructure supported through a Low Carbon Hydrogen Agreement can be future proofed to transition to a future hydrogen T&S network.
4.4	Reference Price	The **"Reference Price"** (expressed in £ per MWh (HHV)) is intended to represent the market price received by the Producer for low carbon hydrogen. For initial projects, this will be the higher of the Producer's Achieved Sales Price and the Price Floor (which will be the lower of the Natural Gas Price and the Strike Price). The Reference Price will act as the appropriate proxy in the absence of an observable hydrogen market price (low carbon or otherwise) and to encourage the development of a market benchmark as the hydrogen market develops.
4.5	Natural Gas Price	The **"Natural Gas Price"** will be the arithmetic average of the daily value of the UK NBP Month Ahead Natural Gas Price published on every business day of the calendar month preceding the relevant Billing Period. The UK NBP Month Ahead Natural Gas Price will be the price for natural gas delivered to the National Balancing Point (NBP) Virtual Trading Point, in equal amounts every calendar day of the nearest calendar month. Natural gas is the most prevalent counterfactual fuel from which offtakers would switch. Therefore, in BEIS' view, offtakers would be likely to pay at least the Natural Gas Price for hydrogen, especially as they would save on CO_2 emissions costs compared to the counterfactual. BEIS is considering the price source, the corresponding reference price review procedure and the fallback mechanism in the event that the relevant price source ceases to publish the UK NBP Month Ahead Natural Gas Price.
4.6	Achieved Sales Price	The **"Achieved Sales Price"** will include the same constituent elements as the Strike Price (e.g. opex associated with small-scale hydrogen transport infrastructure will be excluded from such price). It will be equal to the volume-weighted average price for low carbon hydrogen for the relevant Billing Period in order to reduce the reporting burden for the Producer. In BEIS' view, this component of the Reference Price best represents the market value of the hydrogen sold by the Facility in the near term. BEIS is also considering including audit rights for the Hydrogen Counterparty in order to verify the Achieved Sales Price data provided.
4.7	Price Floor	The **"Price Floor"** will be the lower of the Natural Gas Price and the Strike Price. If the Producer were to sell a unit of low carbon hydrogen at a price below the Price Floor, the discount provided to the Price Floor would not be subsidised. The intention behind this position is to improve value for money for Government and reduce market distortions. Capping the Price Floor at the Strike Price enables the Producer to recover the cost of hydrogen production and allowed return should they choose to sell hydrogen at a price that is higher than the Strike Price but lower than the Natural Gas Price.

No.	Subject	Terms
4.8	Price Discovery Mechanism	The Low Carbon Hydrogen Agreement will include a mechanism that will be designed to aid price discovery. This mechanism will operate so that the Producer receives an amount linked to the increment by which the Reference Price exceeds the Price Floor for each unit of hydrogen sold, with the calculation of this amount to be determined by BEIS. The intention is to promote price discovery and to also incentivise the Producer to seek higher price sales to accelerate the reduction in the Difference Amounts payable by the Hydrogen Counterparty and to encourage investment in hydrogen production on a merchant basis. BEIS is considering whether to cap this reward if the Achieved Sales Price exceeds a specified threshold (to be determined).
4.9	Sliding Scale Volume Support	Volume support will be provided to the Producer through a sliding scale mechanism. Under this mechanism, if the Producer is producing low carbon hydrogen and its offtake/sales volumes fall, the Producer will receive an additional amount for each unit of hydrogen sold. This will be equivalent to paying the Producer a higher level of Strike Price for the low volumes of hydrogen. The calculation of this amount is to be determined by BEIS. If the Producer's offtake/sales volumes fall to zero, no volume support will be provided. This mechanism will enable the Producer to recover a relatively greater proportion of its cost of production (compared with no sliding scale mechanism) in the event that offtake/sales volumes fall, while incentivising the Producer to produce and sell higher volumes of low carbon hydrogen to increase its revenue. It will also provide volume support in a way which balances investability from the perspective of the Producer, while delivering value for money and decarbonisation benefits for Government, and minimising the risk of market distortions and other unintended consequences. BEIS is considering the period over which volume support will be calculated.
4.10	Scaling Up of Production Volumes	BEIS is considering whether a Producer should be permitted to increase the volume produced within an existing Facility above any level initially set out in the Low Carbon Hydrogen Agreement. Any increase in volume produced above any defined level through a new Facility or a new module will not be subsidised pursuant to the Low Carbon Hydrogen Agreement that is initially entered into by a Producer. This position would ensure value for money and affordability for Government on the basis that subsidies for future low carbon hydrogen Facilities or modules are subject to open and fair competition with new production projects in future rounds of contract allocation.
4.11	UK ETS free allowances	BEIS is considering how to treat UK ETS free allowances in the Low Carbon Hydrogen Agreement, including whether restrictions on the Producer from applying for free allowances should be introduced, if the Facility is entitled to free allowances through the UK ETS.

No.	Subject	Terms
4.12	Strike Price Indexation	BEIS' minded-to position in respect of Strike Price indexation for: (a) CCUS-Enabled Facilities, is for the natural gas cost component of the Strike Price to be indexed (in a certain proportion, to be determined) to the market price of natural gas, on the basis of a natural gas price benchmark (which may be based on UK NBP Month Ahead Natural Gas Price), and for all other components of the Strike Price to be indexed to CPI (except for CO_2 T&S fees, which are a pass-through – see discussion in item 4.17 (*CO_2 T&S Fees*)); and (b) electrolytic Facilities, is for the full Strike Price to be indexed to CPI. BEIS is considering the appropriate approach for the indexation in respect of any costs associated with small-scale hydrogen T&S infrastructure covered by the Low Carbon Hydrogen Agreement, and the appropriate approach for the indexation of Strike Prices for other low carbon hydrogen facilities. This reflects BEIS' analysis of production costs for each technology in three key areas: (i) providing end users with security of supply, (ii) protecting producers where they are unable to reasonably manage or control changes in costs; and (iii) protecting Government from excessive risks and costs.
4.13	Qualifying End Users	In order to receive support under the Low Carbon Hydrogen Agreement for volumes of low carbon hydrogen produced and sold, those volumes must be sold to Qualifying End Users. Low carbon hydrogen sales will not qualify for support where volumes of hydrogen are sold for use outside of the UK. In addition, BEIS anticipates that, for initial projects, hydrogen blended into the natural gas network will also be excluded from subsidy support. BEIS will consider whether to include a contractual reopener for these initial contracts, which could enable support for blended volumes in future. Subject to compliance with subsidy control rules and potential adjustments to the hydrogen business model (see discussion below in item 4.14 (*Feedstock users and self-consumption*)), sales to: (a) producers or affiliates, where the hydrogen is produced for self-consumption; and (b) feedstock users, will qualify for support under the Low Carbon Hydrogen Agreement (**"Qualifying End Users"**). As further detailed in item 9.1 (*Reporting and Confidentiality*), the Low Carbon Hydrogen Agreement may include reporting requirements relating to the identity of end users and the value of sales to end users in order to ensure that only volumes of hydrogen produced and ultimately sold to Qualifying End Users receive support under the Low Carbon Hydrogen Agreement. These provisions are to ensure that the Low Carbon Hydrogen Agreement directly supports the Government's objectives and delivers value for money for Government.

No.	Subject	Terms
4.14	Feedstock users and self-consumption	BEIS is considering if any adjustment provisions will be included in the Low Carbon Hydrogen Agreement to ensure that the relevant Producer and/or a Qualifying End User are not overcompensated under the Low Carbon Hydrogen Agreement in respect of qualifying volumes. In particular, BEIS is considering possible adjustments to the Price Floor (amongst other options).
4.15	Billing and Payment	Once the Start Date has been achieved, payments will be made by the Hydrogen Counterparty to the Producer, subject to the application of the relevant formulae that will be set out in the Low Carbon Hydrogen Agreement. The Hydrogen Counterparty will deliver a billing statement to the Producer for each **'Billing Period'** (being a period of one calendar month) no later than seven Business Days after the end of each Billing Period. A billing statement will set out the payments for each half hourly settlement period. Payments will be due to the Producer no later than 28 calendar days after the end of each Billing Period. This is to give sufficient cashflow certainty to the Producer to manage its working capital position and borrowing costs. Half-hourly settlement periods will provide the required granularity to: (i) reflect changes in the carbon intensity of the hydrogen produced; (ii) provide oversight of the performance of the Facility and the administration of the Low Carbon Hydrogen Agreement; and (iii) future proof the settlement system, recognising the trend towards more granular settlement of energy markets. Any payments that are due to the Hydrogen Counterparty will need to be made by the Producer no later than 10 Business Days after the delivery of the billing statement.
4.16	Set-Off	The Low Carbon Hydrogen Agreement may include reciprocal set-off rights for the Producer and the Hydrogen Counterparty (i.e. a Party may reduce the amounts owed by them to the other Party, by any amounts that are owed to them by the other Party).
4.17	CO_2 T&S Fees	For a CCUS-Enabled Facility connected to a CO_2 T&S Network, BEIS is minded to include the CO_2 T&S fees in the payments to the Producer from the Hydrogen Counterparty so that such fees can be passed through to the relevant CO_2 T&S Co.[5]
4.18	CO_2 T&S Delays, Curtailment and Outages	For a CCUS-Enabled Facility connected to a CO_2 T&S Network, BEIS is considering the interface risks between the Facility and the CO_2 T&S Network, including for example the impact of: (a) delays to the construction and commissioning of the network; (b) curtailment of the network; and (c) full network outages, on payments under a Low Carbon Hydrogen Agreement to the Producer. This includes considering the appropriateness of the approaches set out in the CCUS Programme HoTs.

[5] Note to Reader: If applicable, how the CO_2 T&S Fee payment from the Hydrogen Counterparty to the Producer will be paid is subject to further development.

No.	Subject	Terms
5.	**Change in Law**	
5.1	Qualifying Change in Law	BEIS is considering whether to replicate the Qualifying Change in Law (**"QCiL"**) provisions of the AR4 CfD, providing a level of cost and revenue protection for Producers in respect of QCiLs that constitute "discriminatory changes in law" (i.e. that discriminate against the Producer/a Project), "specific changes in law" (i.e. that specifically apply to facilities with a Low Carbon Hydrogen Agreement/utilising a particular low carbon hydrogen technology) and "other changes in law" (i.e. that have an undue and discriminatory effect on a Producer's out-of-pocket costs in comparison with certain comparator groups). The Low Carbon Hydrogen Agreement QCiL provisions may have similar carve-outs to the AR4 CfD, such as for "foreseeable changes in law", the risk of which will sit with the Producer. BEIS is considering these provisions, including the most appropriate comparator groups for specific changes in law and other changes in law, and how QCiL compensation may be calculated and paid.
5.2	QCiL Compensation	The form of the QCiL compensation provisions in the Low Carbon Hydrogen Agreement may be based on the AR4 CfD and may broadly follow the 'no better, no worse' principles of the AR4 CfD (i.e. to place the parties in the position they would have been in had the QCiL not occurred). BEIS is considering how such QCiL compensation should be calculated.
5.3	Qualifying Shutdown Events	For shutdown events, BEIS is considering whether to follow the AR4 CfD, providing a level of compensation for the Producer if a "QCiL construction event" (i.e. a change in law which prevents a Project which is still in construction from reaching the Start Date) or a "QCiL operations cessation event" (i.e. a change in law which renders it illegal for a Project to continue operating) occurs. BEIS is considering how any such compensation should be calculated.
5.4	Change in Applicable Law	The change in applicable law provisions may follow the AR4 CfD, whereby the Hydrogen Counterparty would be entitled to propose amendments to the Low Carbon Hydrogen Agreement where any new law, or a change to the manner in which an existing law is interpreted or applied, renders the Low Carbon Hydrogen Agreement illegal, invalid, unenforceable or inoperable.
6.	**Representations, Warranties and Undertakings**	
6.1	Representations, Warranties and Undertakings	BEIS is considering: (a) following the AR4 CfD in respect of the representations, warranties and undertakings that both the Producer and the Hydrogen Counterparty are required to provide each other; and (b) whether bespoke representations, warranties and undertakings that are unique to the hydrogen business model will be required in the Low Carbon Hydrogen Agreement.
6.2	Producer's Metering Undertakings	BEIS is considering the hydrogen metering requirements for the Low Carbon Hydrogen Agreement, including the extent to which consistency with the AR4 CfD electricity metering undertakings and CCUS Programme HoTs metering undertakings is appropriate. This includes how off-site low carbon hydrogen metering will be governed,

No.	Subject	Terms
		which BEIS is considering for the Low Carbon Hydrogen Agreement as payments will only be made in respect of low carbon hydrogen that is produced and sold by the Producer. BEIS is also considering whether any additional metering or similar obligations will need to be placed on the Producer in respect of the hydrogen business model, including in respect of monitoring, reporting and verifying compliance with the Low Carbon Hydrogen Standard (discussed below in item 7 (*Low Carbon Hydrogen Standard*)).
6.3	Collateral Requirement	BEIS is considering whether to follow the AR4 CfD in requiring a Producer who fails to pay a 'net payable amount' (i.e. where the Reference Price exceeds the Strike Price) to the Hydrogen Counterparty on a number of occasions to provide a specified amount of collateral.
7.	**Low Carbon Hydrogen Standard**	
7.1	General	BEIS is considering the interaction between the Low Carbon Hydrogen Standard and the Low Carbon Hydrogen Agreement, including how requirements deriving from the Low Carbon Hydrogen Standard will be included in the Low Carbon Hydrogen Agreement.
7.2	Payments	As mentioned in item 4.2 (*Trigger for Payment*), in order for a Producer to receive payments under the Low Carbon Hydrogen Agreement for volumes of hydrogen produced and sold, those volumes will need to meet the Low Carbon Hydrogen Standard. This is to ensure that the business model delivers carbon savings and that investment in hydrogen projects is consistent with the Government's net zero commitments.
7.3	Compliance	BEIS is considering how to assess compliance with the Low Carbon Hydrogen Standard: (a) prior to the Start Date, for example at Initial Conditions Precedent, Milestone Requirement and Operational Conditions Precedent stages; and (b) after the Start Date has occurred. In this regard, the Low Carbon Hydrogen Agreement will include relevant reporting and audit requirements. BEIS anticipates that the Hydrogen Counterparty will be responsible for monitoring compliance with the Low Carbon Hydrogen Standard.
7.4	Failure to comply and/or produce low carbon hydrogen	BEIS is considering the consequences of failing to comply with the Low Carbon Hydrogen Standard beyond suspension of payment as per item 7.2 (*Payments*), including what rights the Hydrogen Counterparty should have to enforce compliance with the Low Carbon Hydrogen Standard. In addition, BEIS is considering whether the Hydrogen Counterparty should have a right to terminate the Low Carbon Hydrogen Agreement if, for example, limited or no low carbon hydrogen is produced for a prolonged period of time.
7.5	Grandfathering	The Low Carbon Hydrogen Agreement will not require the Producer to comply with any future amendments to the Low Carbon Hydrogen Standard after the Agreement Date.

No.	Subject	Terms
7.6	Certification	BEIS is considering how the Low Carbon Hydrogen Agreement will interact with a potential future Low Carbon Hydrogen Standard certification scheme.
8.	**Force Majeure**	
8.1	Force Majeure Relief	BEIS is minded to follow the provisions of the AR4 CfD, whereby the Producer will be entitled to day-for-day extensions of time (pre-Start Date) and relief from performance of its Low Carbon Hydrogen Agreement obligations where a Force Majeure event occurs which is beyond the Producer's control and which could not have been reasonably avoided or overcome by the Producer. As with the AR4 CfD, such protection is unlikely to apply where the relevant event is caused by the Producer's fault or negligence, or where the relevant event occurred before the date on which the Producer applied for the Low Carbon Hydrogen Agreement. BEIS is considering the interplay between the Force Majeure provisions and the provisions relating to delays, curtailment and outages, if applicable, in a CO_2 T&S Network.
9.	**Other**	
9.1	Reporting and Confidentiality	The reporting and confidentiality provisions in the Low Carbon Hydrogen Agreement will likely be based on the AR4 CfD and the CCUS Programme HoTs. However, in respect of reporting under the Low Carbon Hydrogen Agreement, BEIS may require more detailed and frequent reporting, with the Producer being required to keep the Hydrogen Counterparty fully informed of its progress during the construction, completion, testing and commissioning of the Facility and in satisfying the Operational Conditions Precedent. This is in recognition of the importance the first hydrogen projects will have to the success of the implementation of Low Carbon Hydrogen Agreements. We expect that additional reporting obligations will be included in the Low Carbon Hydrogen Agreement in order for the Hydrogen Counterparty to administer and carry out settlement activities in respect of the hydrogen business model payment mechanism.
9.2	Supply Chain Reporting	BEIS is minded to follow the proposed CCUS Programme HoTs supply chain reporting requirements. These may require the Producer to provide a report on economic benefits and its supply chain to the Hydrogen Counterparty at the following stages/deadlines: (a) 1st report by the Milestone Delivery Date; (b) 2nd report by the 3rd anniversary of the Start Date (i.e. after the Project becomes operational); and (c) 3rd report by the 7th anniversary of the Start Date. A breach of this reporting obligation may result in a fee being levied against the Producer, which may be deducted from future payments made to the Producer by the Hydrogen Counterparty.
9.3	Dispute Resolution Procedure	BEIS is considering following the dispute resolution procedure detailed in the AR4 CfD, with disputes escalated to a meeting of senior

No.	Subject	Terms
		representatives followed by final resolution by expert determination or arbitration.
9.4	Subsidy Control / Other Incentives	BEIS is considering whether to replicate the AR4 CfD provisions in relation to subsidy control (including provisions prohibiting cumulation in respect of the same eligible costs), and whether provisions related to subsidy cumulation would need to be amended to reflect the proposed business model. BEIS will ensure that subsidy control provisions under the Low Carbon Hydrogen Agreement are consistent with the Subsidy Control Bill (currently going through Parliament) once it becomes law and any other subsidy control rules having legally binding effect in the United Kingdom. BEIS is also considering the most appropriate approach to the Low Carbon Hydrogen Agreement and NZHF allocation which will enable projects to access capital support from the NZHF and revenue support from the Low Carbon Hydrogen Agreement, as well as how to manage interactions with other Government schemes which have the potential to provide support for the same costs. This is to ensure the Low Carbon Hydrogen Agreement is compliant with relevant subsidy control rules.
9.5	Limited Recourse Arrangements	The Low Carbon Hydrogen Agreement will initially be taxpayer funded, with a transition to levy funding taking place no later than 2025, subject to consultation and legislation being in place. BEIS is considering (i) how the Low Carbon Hydrogen Agreement will be structured and drafted to enable such transition and (ii) how the limited recourse provisions in the AR4 CfD could be adapted in order to reflect the proposed funding models. BEIS' intention is for the provisions to contain a version of the "pay when paid" obligations that are a key feature of the AR4 CfD (i.e. with the Hydrogen Counterparty only being required to pay Producers to the extent that the Hydrogen Counterparty receives corresponding and allocated amounts from the relevant source(s) of funding). BEIS is considering the regulatory structure that will be used for hydrogen when a levy funding transition takes place.
9.6	Boilerplate Provisions	The Low Carbon Hydrogen Agreement will contain standard and miscellaneous provisions, largely following the AR4 CfD, including provisions relating to: (a) intellectual property rights (with such provisions aligned, as appropriate, with the IPR provisions in the CCUS Programme HoTs); (b) assignment; (c) marketing, publicity or communication; (d) notices; and (e) governing law.

SECTION C – DEFINITIONS

In this document capitalised terms not otherwise defined shall have the following meaning:

Term	Definition
Achieved Sales Price	has the meaning given to that term in item 4.6 (*Achieved Sales Price*).
Agreement Date	means the date of the Low Carbon Hydrogen Agreement.
Billing Period	has the meaning given to that term in item 4.15 (*Billing and Payment*).
Business Day(s)	means a day (other than a Saturday or a Sunday) on which banks are open for general business in London.
CCUS-Enabled Facility	means a natural gas reformation and/or gasification Facility with the purpose of producing low carbon hydrogen and capable of capturing, monitoring, metering and exporting CO_2 produced by the Facility.
CO_2 T&S Network	means the network including but not limited to: (a) pipelines used for the transportation of CO_2 from one capture unit to a storage facility or to or from any CO_2 pipeline network; or (b) routes used for the transportation of CO_2 from one capture plant to a storage facility or to or from any CO_2 pipeline network; and (c) storage facilities for the permanent storage of CO_2.
CPI	means: (a) the all items index of consumer price inflation published each month by the Office for National Statistics; or (b) if that index is no longer being published, such index as the Hydrogen Counterparty may reasonably determine to be appropriate in the circumstances; or (c) if there is a material change to the basis of that index, such other index as the Hydrogen Counterparty may from time to time reasonably determine to be appropriate in the circumstances.
Difference Amount	has the meaning given to that term in item 4.1 (*Difference Amount*).
Expiry Date	has the meaning given to that term in item 2.6 (*Expiry Date*).
Installed Capacity	means the capacity of the Facility (expressed in MWh (HHV)) were it to be operated at optimal operating conditions on a continual basis for a sustained period at the maximum capacity possible, assuming that any source of power used by the Facility to produce hydrogen was available without interruption.
Installed Capacity Estimate	[*is the Facility capacity determined at the Agreement Date*]
Facility	means the hydrogen production plant and all necessary interfaces and any other facilities or equipment for the safe, efficient, timely and economical operation of the hydrogen production plant in a manner to satisfy fully the requirements under the Low Carbon Hydrogen Agreement.
FM Affected Party	means a Party affected by Force Majeure.
Force Majeure	means any event or circumstance provided that such event or circumstance:

Term	Definition
	(a) is beyond the reasonable control of the FM Affected Party or, if relevant, its representatives (in the case of the Producer and its representatives, acting and having acted in accordance with a reasonable and prudent standard); (b) could not reasonably have been avoided or overcome by the FM Affected Party or its representatives (as appropriate); and (c) is not due to the FM Affected Party's fault or negligence (or that of its representatives[6].
Hydrogen Counterparty	means the person designated as a counterparty for the Low Carbon Hydrogen Agreement.
Hydrogen T&S Infrastructure	[*this definition is still under development*]
Initial Conditions Precedent	means the conditions precedent set out in item 2.3 (*Initial Conditions Precedent*).
Longstop Date	means the last day of the [*a period to be determined*] following the final day of the Target Commissioning Window.
Low Carbon Hydrogen Standard	means the UK low carbon hydrogen standard developed by BEIS.
Milestone Delivery Date	means a date [*a period to be determined]* after the Agreement Date.
Milestone Requirement	[*this definition is still under development*]
Milestone Satisfaction Date	means the date of the notice from the Hydrogen Counterparty to the Producer specifying that the Producer has complied with and fulfilled a Milestone Requirement.
Natural Gas Price	has the meaning given to that term in item 4.5 (*Natural Gas Price*).
NZHF	means the Net Zero Hydrogen Fund.
NZHF GFA	means the NZHF grant funding agreement awarded to the Producer.
Operational Conditions Precedent	means the conditions precedent set out in item 2.4 (*Operational Conditions Precedent*).
Price Floor	has the meaning given to that term in item 4.7(*Price Floor*).
Producer	means a person who intends to carry out hydrogen production activities in relation to a hydrogen production facility.
Project	means the design, development, construction, completion, testing, commissioning, operation, maintenance and decommissioning of the Facility.
Qualifying Change in Law	[*this definition is still under development*]
Qualifying End Users	has the meaning given to that term in item 4.13 (*Qualifying End Users*).
Reference Price	has the meaning given to that term in item 4.4 (*Reference Price*).

[6] Note to Reader: this definition is still under development.

Term	Definition
Start Date	means the date on which the Producer notifies the Hydrogen Counterparty that the Operational Conditions Precedent have been fulfilled (or waived by the Hydrogen Counterparty).
Strike Price	has the meaning given to that term in item 4.3 (*Strike Price*).
Target Commissioning Window	means [*a defined period (to be determined)*] before and after the target commissioning date notified by the Producer to the relevant authority in its application for the Low Carbon Hydrogen Agreement.
Total Project Commissioning Costs	[*this definition is still under development*]
UK ETS	means the emissions trading scheme in the UK established pursuant to The Greenhouse Gas Emissions Trading Scheme Order 2020.
UK NBP Month Ahead Natural Gas Contract	means a contract relating to the delivery of a firm volume of gas entered into the preceding calendar month.
UK NBP Month Ahead Natural Gas Price	means the price for a UK NBP Month Ahead Gas Contract as reflected in an UK NBP Index.
UK NBP Index	means an index of UK NBP Month Ahead Natural Gas Price.