These are notes circulated by BEIS following a market engagement workshop held in April on the Hydrogen Business Model and Net Zero Hydrogen Fund electrolytic allocation round. Please note that these notes were first circulated on 7th June but the red-highlighted text has been amended and circulated on 6th July.

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| In the initial Net Zero strategy the indication was that there would be £100m of funding for up to 250MW of electrolytic production (which I assume was on an annual basis). Has this changed at all or is there any upper limit on the available strike price under the Business Model given the variation in costs for different producers? | The new Energy Security Strategy means we will be increasing our deployment from the first two allocation rounds in 2023 and 2024 to award up to 1GW contracts. Funding for projects operational before March 2025 will be provided by the up to £100m of taxpayer funding we committed to in the NZS, with all hydrogen production intended to be levy funded beyond that, subject to consultation and legislation. Details on allocation rounds from 2025 onwards will be set out in the future. |
| How do you assess the ‘cost effectiveness’ between various proposals when the LCOH varies because the value of H2 per kg varies with the application/sector into which the hydrogen is being sold? | The aim of the cost assessment is to ensure that funded projects deliver the most cost-effective hydrogen and represent value for money for taxpayer investment. Projects will therefore be scored on the basis of their levelised cost of hydrogen (adjusted for cost robustness), with lower cost projects scoring more highly against this criterion. In determining the final selection of projects taken through to the agreeing the offer stage, government may also consider applying portfolio factors to ensure that the selection of funded projects align with the government’s strategic objective to increase hydrogen production and use across the economy. One such portfolio factor under consideration is a diversity of end use sector offtakers. |
| Given the Government has doubled the hydrogen target and that no less than 50% of this will be electrolytic has there / will there be reconsideration of the budgets e.g. IDHRS funding and £240m NZHF? | The new Energy Security Strategy means we will be increasing our deployment from the first two allocation rounds in 2023 and 2024 to award up to 1GW contracts. Funding for projects operational before March 2025 will be provided by the up to £100m of taxpayer funding we committed to in the NZS, with all hydrogen production intended to be levy funded beyond that (subject to consultation and parliamentary approval to any legislation).  The NZHF currently has a budget of £240m agreed up to 2025 and has committed to providing capital co-funding alongside HBM revenue support for the first electrolytic allocation rounds, opening in 2022 and 2023. The Ten Point Plan committed up to £500m total investment in hydrogen (of which £240m was allocated to NZHF for this Spending Review Period). Funding decisions beyond 2024-25 are for future Spending Reviews. |
| how would a project applying for strand 3 HBM be evaluated with a project applying for strand 3 HBM with capex? | At the application stage, Projects will be asked whether they intend to request a CAPEX grant. All projects will be subject to the same assessment process which will not take into account whether projects are applying for CAPEX or not. For example, all projects will undergo a technical, commercial, and financial assessment under deliverability, and a projects’ levelised cost of hydrogen delivered will be assessed within the cost criterion.  At the agreeing an offer stage, the strike price and CAPEX grant will be determined. Projects applying for CAPEX are likely to receive a lower strike price and present better VfM to government due to lower overall lifetime costs. We are still considering whether the grant funding intensity will form part of the parameters of the bilateral negotiations, to optimise VfM for the taxpayer, while ensuring the additionality of public funding. |
| How many further capital rounds will there be? and with what budget and timescale? | The NZHF currently has a budget of £240m agreed up to 2025 and has committed to providing capital co-funding alongside HBM revenue support for the first electrolytic allocation rounds, opening in 2022 and 2023. The Ten Point Plan committed up to £500m total investment in hydrogen (of which £240m was allocated to NZHF for this Spending Review Period). Funding decisions beyond 2024-25 are for future Spending Reviews. |
| Can a project / application include more than one location? E.g. taking power from a single wind farm to two electrolysers in different locations, situated at the points of use, by sleeving power through the grid. Could this be a single application? | The use of sleeving power through the grid is permitted under the LCHS provided the electricity input requirements across both electrolysers are met, including having appropriate metering in place, with temporal correlation and a PPA underpinning this.  However, we do not propose to consider project aggregation for initial contracts, as the complexities of this approach for both the allocation process and business model design would require further analysis which would put at risk the proposed allocation timescales. For future allocations, we may consider whether it would be appropriate to allow smaller projects to aggregate and submit a joint bid for business model support.  A single production project must be producing hydrogen at a single location. |
| Or the reverse of Neil's question - could we power an electrolyser from contracted multiple types of grid-connected renewables e.g. a mix of solar, onshore PV and hydro. | Yes - this is permitted under the LCHS provided the technical requirements are met for low carbon electricity input. This includes; i) ensuring all electricity input on an annual basis is covered by appropriate energy attribute information, i.e. REGOs; ii) temporal correlation per 30 minute consignment period to match the electrolyser consumption to the specific generation asset being claimed as low carbon (or to the national grid average if this power is not being linked to a specific asset);and  ii) all low carbon linked generation must be underpinned by a PPA or other contractual information to prove a contractual link to the low carbon generation attributes of that generation.. |
| Temporal reconciliation is still unclear as some are interpreting it as monthly and others half-hourly - can we have a definitive answer? | We require temporal correlation between electricity input and consumption for all electricity input used in electrolytic hydrogen production per 30-minute settlement period.    All electricity inputs shall have a discrete consignment size of 30 minutes. Discrete consignments are defined as inputs from a single measurable source with an identical set of environmental characteristics (see the UK Low Carbon Hydrogen Standard for further detail).    For monthly reporting purposes, hydrogen producers can choose to submit discrete consignments, or to average across multiple different discrete consignments once in calendar month. The once monthly averaged consignment must be compliant with the standard threshold.    Further detail is set out in the Low Carbon Hydrogen Standard in the section on Mixed Inputs, and in Annex A on Electrolytic Hydrogen Production. |
| Can we use the HBM / NZHF to create transport hydrogen if we don't like DFT's requirements under the RTFO? | The hydrogen business model is designed to facilitate hydrogen use in a broad range of sectors, including transport. Further details on qualifying offtakers and end uses, including use cases where hydrogen supply may not qualify for business model support are set out in the hydrogen business model government response. Government may also consider applying portfolio factors to ensure that the selection of funded projects align with the government’s strategic objective to increase hydrogen production and use across the economy. One such portfolio factor under consideration is a diversity of end use sector offtakers.    Producers will also need to meet the UK Low Carbon Hydrogen Standard to qualify for and receive hydrogen business model funding.    We recognise that some projects may be considering revenue support through both the hydrogen business model and the Department for Transport’s renewable transport fuel scheme (RTFO). Subject to compliance with subsidy control principles, it is our intention to develop arrangements that could support dual participation in both schemes – although we would not look to allow projects to claim both sources of funding for the same volumes of hydrogen. We would envisage these projects applying for support through strand 3 (the joint NZHF-HBM allocation round), but further detail will be provided on this before the close of the strand 2 application window to allow projects to consider before finalising their arrangements. Applicants will need to satisfy themselves that they have applied to the appropriate strand for the requirements of their projects. |
| Given the requirement to have identified offtakers, is there a minimum level of capacity (as a %) that the offtaker has to agree to take from the COD? | All uses of hydrogen that lead to a reduction in carbon emissions against a counterfactual will be counted as a valid offtaker at eligibility stage. At evaluation stage, checks will be undertaken regarding the robustness and appropriateness of the offtaker(s) and any offtaker agreements. However, we are not currently proposing a minimum level of offtake capacity at eligibility stage. |
| What is the maximum number of applications (different projects) allowed across NZHF and HBM combined, is it 2 as lead plus 2 as collaborator , total 4? | We originally set out our minded to position as follows: “A business can lead on up to 2 applications, which must be materially different, and can be included as a collaborator in a further 2 applications. Each application will need to meet the eligibility criteria and will be assessed on its own merits. Further information will be set out in the competition guidance.”    We have received feedback from stakeholders that a limit set at this level this may not encourage investment in smaller projects and could deter some viable projects from being able to apply for this allocation round.    We have considered this feedback alongside other evidence and are now minded to allow any UK Registered businesses to lead and be a collaborator or project partner on a higher number of applications. This will be confirmed when the application guidance is published. |
| Is there a limit on the number of projects that can be submitted by a single sponsor/developer ? Where is this detailed ? | A business can lead on up to 2 applications, which must be materially different, and can be included as a collaborator in a further 2 applications.  Each application will need to meet the eligibility criteria and will be assessed on its own merits. Further information will be set out in the competition guidance. |
| Will the LCOH calculation in evaluation include cost of H2 transport to offtaker ? | This is currently under consideration and we intend to provide further information in the competition guidance document. |
| What is needed for financing if companies are balance sheet funding? | Applicants will be required to demonstrate the financial and commercial viability of the projects. When providing the financing plan, projects will be asked to evidence the proposed financing arrangements, and demonstrate support from the project partners, e.g. through letters of support from the project parent company and/or external capital providers. The financial health of the parent company will also be assessed. Further details will be provided in the Guidance document. |