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# Hydrogen Allocation Round 2022 – Process Evaluation (post- Shortlisting)



Final Report



Version 1.3

December 2024

## Hydrogen Allocation Round 2022 – Process Evaluation (post-Shortlisting)

### Final Report

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## List of Acronyms

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BaFO	Best and Final Offer
CGL	DESNZ Central Grants & Loans Secretariat
CO	Counter Offer
COD	Commercial Operation Date
COI	Conflict of Interest
CQ	Clarification Question
DD	Due Diligence
HAB	Highest Acceptable Bid
HAR1	First Electrolytic Hydrogen Allocation Round
HAR2	Second Hydrogen Allocation Round
HFAB	Hydrogen Funding and Allocation Board
HICC	DESNZ Hydrogen and Industrial Carbon Capture Directorate
HLQ	Evaluation High-Level Question
HMG	His Majesty's Government
HPBM	Hydrogen Production Business Model
IDHRS	Industrial Decarbonisation and Hydrogen Revenue Support scheme
LCCC	Low Carbon Contracts Company
LCHA	Low Carbon Hydrogen Agreement
NLT	DESNZ Negotiation Leadership Team
NZHF	Net Zero Hydrogen Fund
RFI	Request for Information
SP	Strike Price
VfM	Value for Money



## Executive Summary

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This report presents the process evaluation of the post-Shortlisting stages of the first electrolytic Hydrogen Allocation Round (HAR1), conducted by Technopolis Ltd on behalf of the UK's Department for Energy Security and Net Zero (DESNZ, formerly BEIS). It sets out the methodology and findings of the evaluation and recommendations for future similar hydrogen allocation rounds. The round being evaluated was launched in July 2022 to provide the opportunity for electrolytic hydrogen projects to access capital expenditure (Capex) and revenue (HPBM) support.

The overall aim of this process evaluation is to provide understanding and learnings on the different processes and outcomes of the post-Shortlisting stages of HAR1 up to the announcement of successful projects in December 2023, and to inform DESNZ thinking for the design / delivery of future allocation rounds. This evaluation ran from March to July 2024 with a focus on the request for information (RFI), due diligence, and negotiation stages of HAR1 (and where the due diligence stage is considered as an 'initial' and then a 'continued' due diligence stage, with the latter running alongside commercial negotiations).<sup>1</sup>

The evaluation included a desk-based review of relevant programme documentation and an update to the HAR1 process map developed previously,<sup>2</sup> together with primary data collection and a semi-structured interview programme. A total of 19 semi-structured interviews with 38 interviewees were held with three different stakeholder groups. These consisting of HMG officials (including the NZHF delivery partner, Central Grants and Loans), shortlisted projects, and the technical/commercial advisors. For the shortlisted projects, the interviews covered 9 successful and 5 unsuccessful HAR1 projects.

Analysis shows there is a broad and overarching recognition of the FOAK nature of the first allocation round from both the successful and unsuccessful projects, HMG officials as well as the technical advisors. With the detail of the design and delivery within the RFI, due diligence, and negotiations stages being 'fine-tuned' to an extent during the processes and implementation of the stages and where this provides important and timely learnings and recommendations for HAR2 and future allocation rounds.

### *Request for Information (RFI) stage:*

The overall purpose of the RFI stage was to gather information for the due diligence stage and to inform the cost analysis. It was based on the information required for the technical and financial due diligence and included two components: the RFI form (which includes text-based answers from each shortlisted project) and the data template. RFIs were sent to shortlisted projects on 29th March 2023 and were required to be returned on 22nd May 2023 (during this timeline, there was a process of clarification for projects to ask questions and for HMG officials and the technical/commercial advisors to seek further information).

Overall, the RFI stage was manageable with appropriate communications and timelines for both the successful and unsuccessful projects. There were a number of specific challenges though, which include a limited level of interaction with HMG officials and tight turnarounds for

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<sup>1</sup> This follows the HAR1 (initial) process evaluation which was delivered by Technopolis Ltd during Q1/Q2 2023 with a focus on HAR1 processes and stages up to the Shortlisting of projects.

<sup>2</sup> A process map was developed as part of the HAR1 (initial) process evaluation.



clarification questions in some instances. Most of these projects do note though that HMG officials were accommodating with timescales and flexible if they said they could only provide something within a certain amount of time.

The SharePoint portal can be highlighted as having mostly worked well for the projects and the data templates used during the RFI stage, and their definition and structure are seen overall to be comprehensive and clear. The RFI guidance was helpful, for instance, on the scoring criteria. Projects generally indicate that they understood how the RFI data was used (for example, there is a clear breakdown by section on deliverability and additionality; and that it was useful to know how much additionality and other factors were valued so they were able to dedicate proportionate time and effort onto these sections).

A repetition of information within the data annex, where questions were asked in different ways in different parts of the template can be highlighted as an area that could be improved and made more efficient. There were also some difficulties experienced due to changes made in the templates when projects were actively developing their submissions and broader project activities (for example, when data templates were reissued, changes were not always flagged to the projects in the new versions).

The range and nature of the different projects and the stages they were at in their development cycles also meant that financial risks could be managed differently and therefore, costs could vary considerably, making the assessment process more complex. Some projects also note HMG expectations of the project maturity/stage and what projects saw as feasible at the RFI stage was not always in alignment. This created a degree of deliverability confidence challenge for projects and resulted in a tension between the need to balance confidence that applicants can deliver projects to time and where additional support from HMG on certain engagements could have been helpful.

#### *Due Diligence stage:*

The due diligence stage ran between May 2023 and October 2023. It is considered in this report as two phases: 1) an initial due diligence based on the RFI submissions, running from May 2023 to August 2023; and, 2) continued due diligence alongside the commercial negotiations, running from August 2023. The 'negotiations project list' of projects who passed the initial due diligence phase was published on 16th August 2023 and this officially indicated the projects that would continue through to the negotiations stage. The due diligence continued throughout the negotiations phase, thus running through to October 2023.

The overall length of the due diligence stage is appropriate according to both HMG officials and the projects and delays with the timelines were not seen as a significant issue and attributed to the FOAK nature of the allocation round. While the continued due diligence phase and the negotiations stage overlapped (creating some uncertainty for projects, e.g., clarity of beginning of negotiations, and state of project maturity expectations), HMG officials highlight the integration of these two parts of the process as important to the ultimate success of HAR1 and note that it worked relatively well. With its novelty, the flexibility and lack of clear delineation between the due diligence and negotiations stages can be viewed as facilitating the overall process.

While the overall due diligence process is seen as fair by both successful and unsuccessful projects, most projects indicate the details of the expected process during due diligence was not completely clear to them (for example, more definition upfront would help support their planning). The general level of communications during due diligence are seen as timely, and helpful though by the projects and they appreciated being able to have meetings with DESNZ



(although some projects note the due diligence stage could benefit from more tailored engagement steps/meetings between HMG officials and the projects).

Most of the projects state that the due diligence criteria and information required was generally clear and reasonable, although some did not fully understand how the information, and how their project, was going to be assessed. For example, the process and derived information from the benchmarking exercise was not shared with projects. Further transparency on this process would have been helpful, given the nascency of the market.

While most of the RFI information provided was sufficient and provided a good view of the projects and their status, the initial due diligence phase soon after the RFI returns, coupled with a less transparent view of HMG prioritisation in this stage, presented some challenges to the projects. Most projects feel that the initial due diligence phase came too quickly after the RFI responses. For example, the first batch of clarification questions that came up as part of the due diligence immediately post-RFI were seen by some projects as repetitive to the RFI questions.

A further notable challenge for two successful projects was escalation of pricing, whereby specific supply chain challenges were seen with respect to timing. They were asked to submit data and keep the prices valid but when the back-end dates moved, they reported having to go back to the supply chain and revalidate the costs. It would have been helpful if this process could have been quicker and with bi-lateral discussion with DESNZ.

#### *Negotiations stage:*

The negotiations stage was structured and approached by DESNZ with an overall aim to ensure that only deliverable projects that represent value for money are awarded contracts/LCHAs. It involved HMG officials and consisted of two key components for the 17 projects invited to negotiations. Namely, the development and agreement of a strike price (SP) for each project, and the submission and acceptance of each project's Best and Final Offer (BaFO) for contracting.

Both the successful and unsuccessful projects broadly found the negotiations stage to be a fair process. It was not seen as completely transparent by all projects though and there is a perception that the timing and length of the negotiations stage was too constrained and that the experience of the (continued) due diligence and negotiations stage was more parallel and less discrete than expected or communicated to the projects.

A need for more communication points with DESNZ to be designed into the negotiations process is highlighted by most projects and as there was a rather low level of interaction and 'negotiation' in their view. The start point of the negotiations process can also be highlighted in terms of it being more clearly identifiable to projects. In some instances, projects found the lack of bilateral discussions created some difficulties in identifying/understanding whether they were in the negotiations stage.

Clarity on the Indicative Offer is also specifically noted by projects. For example, one successful project thought there was a lack of discussion and clarity on what they were going to receive and what it would mean for the project as well as a justification on how it was derived. The potential for projects to take on too great a degree of risk to be successful in the negotiations, rather than building up something that they think is deliverable should also be noted here. The experience of the cost justification engagement varied for projects, with a perception for some that the justification of costs were pushed for, without a full explanation of the need. It should be noted though that for HMG officials, the cost justification engagement is an opportunity for projects to explain and justify their costs and to explain the rationale, defend them, and provide



more context. For both successful and unsuccessful projects, the BaFO template is seen to have worked well and facilitated the process (with perhaps some more definition needed in some instances on where the numbers are coming from and about what goes into which box).

There is a view that not enough consideration of project change over time is provided for some projects (for example, change in customer volumes is not recognised in the template, and presenting a project as static over 15 years may be an oversimplification). Projects may change considerably during their execution and the negotiations process could see a benefit from tracking these changes more accurately.

Following the announcement of the successful projects, there has been a subsequent level of recognition and interest in the projects as they were made public (for example, two projects indicate they have experienced an interest from offtakers and potential lending partners).

*Recommendations for future electrolytic hydrogen allocation rounds:*

Based on the findings outlined throughout the report, the following recommendations have been presented for consideration for future electrolytic hydrogen allocation rounds.

*Table 1. Recommendations for HAR2 and future electrolytic hydrogen allocation rounds*

Recommendations
<p><b>Request for Information (RFI)</b></p> <ul style="list-style-type: none"> <li>Enhanced programme/stakeholder management processes and more definition/information sharing with projects would help provide more consistency and clarity across the RFI stage.</li> <li>Informing projects in advance of the type of RFI-based information required would further facilitate the process.</li> <li>Improvements could be made to the types of tools used to handle data and additional testing of templates before they are provided to projects would support a more effective and efficient process.</li> </ul>
<p><b>Due Diligence</b></p> <ul style="list-style-type: none"> <li>More bilateral/tailored engagement steps with the projects (e.g., meetings in smaller groups (rather than larger groups with senior HMG officials) tailored to the earlier and later stages of the due diligence/overlap with the negotiations.</li> <li>More clarity/communication around how projects will be judged to facilitate the process for project applicants.</li> <li>Further clarity of timeline and process for projects to better resource their applications and use time more effectively.</li> <li>Further definition on how submitted information is weighted to support projects to more effectively respond with their submissions and identify areas for improvement and strengths.</li> <li>Possibility to decrease due diligence time frame in future allocation rounds, based on process learnings in HAR1.</li> <li>Additional targeted HMG discussions with projects (in relation to their supply chains, feedstock) during the due diligence would further support alignment between the projects and DESNZ (e.g., on</li> </ul>

benchmarking), as well as help enable more effective and efficient discussions between the projects, and their supply chains.

- Instances where projects are an 'information taker' in the due diligence (e.g. DNO price/costs) could be taken into account more as part of the flow of information between the projects and DESNZ.
- Guidance could be provided earlier to technical assessors on level of information required for reporting to DESNZ, to allow better planning and avoid duplication and inefficiencies.

### **Negotiations**

- Further consideration of timelines and additional communication points as part of the negotiations process would be helpful for projects (for example, start point of negotiations process could be made more clearly identifiable to projects, and a timeline/forward plan included with a longer time horizon, where possible).
- More detail on how projects will be assessed and negotiated with throughout the course of the negotiations process to give more clarity to projects and manage their expectations, including clarity on the points that are up for bilateral negotiation.
- Provide additional clarity and discussion on the Indicative Offer and its basis and on project deliverability to further facilitate the negotiations process.
- A more open dialogue on key factors that influence the strike price (e.g., macro factors, supply chain issues, electricity market issues) could mean that solutions are found quicker.
- Earlier sharing of information and templates and enhanced definition in the BaFO template (for example, publishing templates in advance, further detail on where numbers are coming from and about what goes into which box).
- Additional consideration of project change over time (e.g., change in customer volumes is not recognised in the template, and presenting a project as static over 15 years may be an oversimplification).

# 1 Introduction

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## 1.1 Overview of the first allocation round (HAR1) and its objectives

The first electrolytic hydrogen allocation round (HAR1) was launched in July 2022. It forms part of a broad range of support for the development of a UK hydrogen sector.

As described in an earlier process evaluation report that covered the pre-shortlisting stages of the first electrolytic hydrogen allocation round,<sup>3</sup> HAR1 offers revenue support to electrolytic hydrogen production projects through the Hydrogen Production Business Model (HPBM),<sup>4</sup> with the option of also accessing capital support through the Net Zero Hydrogen Fund (NZHF) to reduce project risk and overall lifetime cost. HAR1, including HPBM and NZHF support mechanisms, therefore aims to address several market failures and production barriers.<sup>5</sup>

HAR1 has the following strategic objectives (as set out in the HAR1 application guidance).<sup>6</sup>

- Kickstart the low carbon hydrogen economy across the UK, helping meet the ambition of up to 1GW of electrolytic hydrogen production capacity in operation or construction by 2025.
- Support projects to deploy at scale at the earliest opportunity, advancing the aim of Government to deploy up to 10GW of low carbon hydrogen production capacity by 2030, subject to affordability and Value for Money (VfM), with at least half from electrolytic hydrogen production capacity, and to do so at affordable costs by harnessing economies of scale.
- Deliver carbon savings to allow us to stay on track to meet Carbon Budget 5, Carbon Budget 6 and other net zero commitments.

## 1.2 Evaluation aims and objectives

The overall aim of this process evaluation is to provide understanding and learnings on the different processes and outcomes of the post-shortlisting stages of HAR1 up to the announcement of successful projects in December 2023 and to inform DESNZ thinking for the design / delivery of future allocation rounds.

The process evaluation has been undertaken in Q1/Q2 of 2024<sup>7</sup> and has focussed on the request for information (RFI), due diligence, and negotiation stages of HAR1. Note that the due

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<sup>3</sup> Delivered by Technopolis and published by DESNZ in September 2023. See

<https://www.gov.uk/government/publications/hydrogen-allocation-round-2022-process-evaluation>

<sup>4</sup> The HPBM is funded via the Industrial Decarbonisation and Hydrogen Revenue Support (IDHRS) scheme.

<sup>5</sup> Market failures: nascent marketplace (i.e., imperfect information); first mover disadvantage; coordination failures; and negative externalities (e.g., social cost of carbon). Production barriers: high upfront/production costs; uncertainty for private investment (e.g., regulation, supply, offtaker/end-use demand); technology and commercial risks.

<sup>6</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1140928/hbm-nzhf-electrolytic-round-application-guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1140928/hbm-nzhf-electrolytic-round-application-guidance.pdf)

<sup>7</sup> This follows the HAR1 (initial) process evaluation which was delivered during Q1/Q2 2023 and looked at all HAR1 processes and stages up to the shortlisting of projects.

diligence stage can be split into an initial and continued due diligence stage, with the latter running alongside commercial negotiations.

The HAR1 process evaluation has the following objectives:

- Gain understanding of and determine lessons learned from the experiences of firms and their projects shortlisted as part of HAR1 and having gone through the subsequent RFI, due diligence and negotiation phases of the process.
- Gain understanding of and determine lessons learned from the experiences of HMG officials and technical/commercial advisors in delivering the later stages of the HAR1 allocation round.
- Identify and provide any recommendations for improvements from HAR1's later stages that can be made to the RFI, due diligence and negotiation stages of HAR2, which could enable enhancements to delivery.
- Identify and assess any short-term unintended consequences (positive or negative) of the delivery of HAR1's later stages.

In order to provide this assessment and understanding, the process evaluation aims to answer the set of Evaluation Questions set out below in Table . And in doing this it will broadly answer the following: Is HAR1 being delivered as intended? What worked well, less well, for whom and why? What could be improved? What can be learned from the delivery methods? How has the context influenced delivery?

*Table 2. High-level evaluation questions (HLQs) and sub-questions (SQs)*

<b>Evaluation Questions</b>	
<b>HLQ1</b>	<b>To what extent is the design &amp; governance of HAR1 (post-shortlisting) consistent with its objectives?</b>
SQ1.1	Was the timing and length of the RFI, due diligence, and negotiation stage adequate given HAR1's objectives?
SQ1.2	Have any adaptations to the RFI, due diligence, and negotiation stage been made post-launch and if yes, how successfully have those changes been communicated and implemented?
SQ1.3	To what extent does the HAR1 RFI, due diligence, and negotiation stage design complement interventions by similar policies/funds?
SQ1.4	Have any obstacles been identified in the delivery that could have been mitigated against in the design of HAR1 activities?
SQ1.5	Did projects find it a fair and transparent process?
<b>HLQ2</b>	<b>To what extent and how was the Request for Information (RFI) support &amp; handling sufficient?</b>
SQ2.1	Were details on the RFI process, including on timings, communicated to industry effectively?
SQ2.2	Were questions asked in the RFI communicated to industry effectively?
SQ2.3	How was RFI support perceived by projects?

SQ2.4	How was the RFI stage perceived by technical/commercial advisors and HMG officials? Which elements of the RFI process were more or less challenging/burdensome?
SQ2.5	How were communications and clarifications received during the RFI process perceived? Was there a possibility for obtaining clarifications, and was the timeframe for clarifications adequate?
SQ2.6	Was the data template / guidance clear? Did the template allow shortlisted applicants to provide all information they wanted to or could provide for the RFI stage? Were projects clear on the use of supporting documentation?
SQ2.7	To what extent did the technical/commercial advisors meet objectives and expectations during the RFI stage?
SQ2.8	Do shortlisted projects understand how the RFI data is used?
<b>HLQ3</b>	<b>To what extent and how was the due diligence support &amp; handling sufficient?</b>
SQ3.1	Were details on the due diligence process, including on different phases and timings, communicated to industry effectively?
SQ3.2	Were criteria used during due diligence communicated to industry effectively?
SQ3.3	How was due diligence perceived by HMG officials and technical/commercial advisors? Which elements of the due diligence process were more or less challenging/burdensome?
SQ3.4	How were communications and clarifications received during the due diligence process perceived? Was there a possibility for obtaining clarifications, and was the timeframe for clarifications adequate?
SQ3.5	Were the templates/guidance clear? Was the supporting documentation clear?
SQ3.6	To what extent did the technical/commercial advisors meet objectives and expectations during due diligence?
SQ3.7	Do shortlisted projects understand how the due diligence process works?
<b>HLQ4</b>	<b>To what extent and how was the negotiations support &amp; handling sufficient?</b>
SQ4.1	Were details on the negotiations process, including on different phases and timings, communicated to industry effectively?
SQ4.2	Was industry clear on what the Indicative Offer means and what it will be used for?
SQ4.3	Was industry clear on the parameters of the negotiations and what was going to be up for discussion?
SQ4.4	How were the cost justification engagement, sharing of the Indicative Offer and bilateral negotiations stages perceived? Which elements of the negotiations process were more or less challenging/burdensome?
SQ4.5	To what extent did the technical/commercial advisors meet objectives and expectations during negotiations?
SQ4.6	How were communications and clarifications received during the negotiations process perceived? Was there a possibility for obtaining clarifications, and was the timeframe for clarifications adequate?

SQ4.7	How was the Best and Final Offer (BaFO) templates perceived by industry? Were templates/guidance clear? Did the templates allow applicants to provide all information they wanted to or could provide?
SQ4.8	How was the BaFO templates perceived by DESNZ? Were templates/guidance clear? Did the templates provide all information necessary?
SQ4.9	Do shortlisted projects understand how the negotiations process works?
<b>HLQ5</b>	<b>How effective was the RFI and due diligence process?</b>
SQ5.1	How well was the due diligence process structured within DESNZ? Was the governance effective?
SQ5.2	How well did the due diligence processes work alongside the negotiation processes?
SQ5.3	How effective was working with the technical/commercial advisors? How did the division of labour work?
SQ5.4	Did the design of the RFI template aid in the due diligence process? What worked well, what could be improved? How well did the incorporation of supplementary documentation by shortlisted projects work?
SQ5.5	What level of evidence were assessors hoping for via the RFI process?
SQ5.6	What were the particular challenges during the RFI process and how could they be avoided in future?
<b>HLQ6</b>	<b>How effective was the negotiations process?</b>
SQ6.1	How well was the negotiations process structured within DESNZ? Was the governance effective?
SQ6.2	How well did the negotiation process work alongside the due diligence processes?
SQ6.3	How effective was working with the technical/commercial advisors? How did the division of labour work?
SQ6.4	Did the design of negotiation meetings (cost justification engagement and bilateral negotiations) aid in achieving a final outcome? What worked well, what could be improved?
SQ6.5	What were assessors hoping for via the negotiation meetings?
SQ6.6	Did the design of the Best and Final Offer (BaFOs) template aid in the negotiations process? What worked well, what could be improved?
SQ6.7	What were the particular challenges during the negotiations process and how could they be avoided in future?
SQ6.8	How was the value for money assessment and final selection process perceived by DESNZ? Did this work well?
SQ6.9	What were projects' expectations and experiences post announcement of successful projects?
<b>HLQ7</b>	<b>What insights can be gained from HAR1 (post-shortlisting) to inform the delivery of future allocation rounds?</b>
SQ7.1	Which areas of HAR1 delivery worked well?
SQ7.2	Which areas of HAR1 delivery require improvement?

SQ7.3	Has the delivery of HAR1 identified necessary changes to RFI, due diligence and negotiation activities and timings?
SQ7.4	Was the method of delivery the most appropriate and efficient (i.e., admin burden minimised) for these interventions? What have other governments done to reach similar policy objectives? Are there international comparisons?
SQ7.5	What have other governments done to reach similar policy objectives? Are there international comparisons?
SQ7.6	What are the implications of the process evaluation findings for the future of the UK hydrogen economy?
SQ7.7	What lessons can be learned for the delivery and M&E of related policy programmes?

### 1.2.1 Process evaluation methods

This report is a product of the process evaluation of the post-shortlisting stages of HAR1. The research draws on the following main sources:

- A desk-based review of relevant programme documentation.
- A semi-structured interview programme with HMG officials, shortlisted projects (successful and unsuccessful), and technical/commercial advisors.

### 1.2.2 Desk-based review of documentation

The study team gained a more detailed understanding of the post-shortlisting stages of the scheme and its rationale and delivery processes through a desk-based review of programme documentation, supplied by DESNZ. The study team used this understanding to develop a process map, detailing the individual post-shortlisting stages within HAR1 (and where this represents an update to the HAR1 process map developed for the (initial) HAR1 process evaluation during 2023). This task also enabled the study team to develop detailed interview topic guides for the semi-structured interview programme, ensuring sufficient data to answer the Evaluation Questions.

### 1.2.3 Semi-structured interview programme

A total of 19 semi-structured interviews were held with three different stakeholder groups (consisting of HMG officials (including CGL, the NZHF delivery partner), shortlisted projects, and technical/commercial advisors). They were held via MS Teams and guided by interview topic guides. Table indicates the number of each stakeholder type interviewed.

*Table 3. Summary of stakeholders consulted through interviews*

HAR1 stakeholder		Interviews
HAR1 shortlisted projects	Successful (9 projects)	7
	Unsuccessful (5 projects)	4
HMG officials (HICC Directorate/ CGL Secretariat)		6
Technical/commercial advisors		2
<b>Total</b>		<b>19</b>

See Appendix A for full interview topic guides for each stakeholder group.

Interview transcripts were qualitatively analysed to infer common themes and viewpoints on the different aspects of the post-shortlisting HAR1 delivery processes.

### 1.3 Report structure

This report is a product of the process evaluation of the post-shortlisting stages of HAR1. The report is structured as follows:

- Section 1:** Provides an overview of the aims of HAR1 (post-shortlisting) and the process evaluation.
- Section 2:** Describes HAR1 processes and delivery.
- Section 3:** Presents the findings of the process evaluation with regard to the Request for Information (RFI) stage.
- HLQ1: Consistency of RFI design & governance with objectives;
  - HLQ2: Sufficiency of RFI support & handling;
  - HLQ7: Lessons from RFI stage for future rounds.
- Section 4:** Presents the findings of the process evaluation with regard to the initial post-RFI due diligence and the continued due diligence stages during the negotiations.
- HLQ1: Consistency of due diligence design & governance with objectives;
  - HLQ3: Sufficiency of due diligence support & handling;
  - HLQ5: Effectiveness of due diligence (and RFI) process;
  - HLQ7: Lessons from due diligence stage for future rounds.
- Section 5:** Presents the findings of the process evaluation with regard to the negotiations stage.
- HLQ1: Consistency of negotiations design & governance with objectives;
  - HLQ4: Sufficiency of negotiations support & handling;
  - HLQ6: Effectiveness of negotiations process;
  - HLQ7: Lessons from negotiations stage for future rounds.
- Section 6:** Presents a summary of findings from the process evaluation and recommendations for future allocation rounds.



## 2 Overview of HAR1 stages and key processes (post-shortlisting)

HAR1 is ongoing and ran from July 2022 and outcomes were announced in December 2023. This process evaluation covers all stages from announcing the HAR1 shortlist in March 2023 to announcing successful projects to be offered contracts in December 2023.

Figure 1 summarises the main activities and key timings from March to December 2023, covering the HAR1 Request for Information (RFI), due diligence (DD), and negotiations stages. Note that the due diligence processes operated from the RFI deadline as an initial due diligence activity and then alongside the negotiations as continued due diligence.

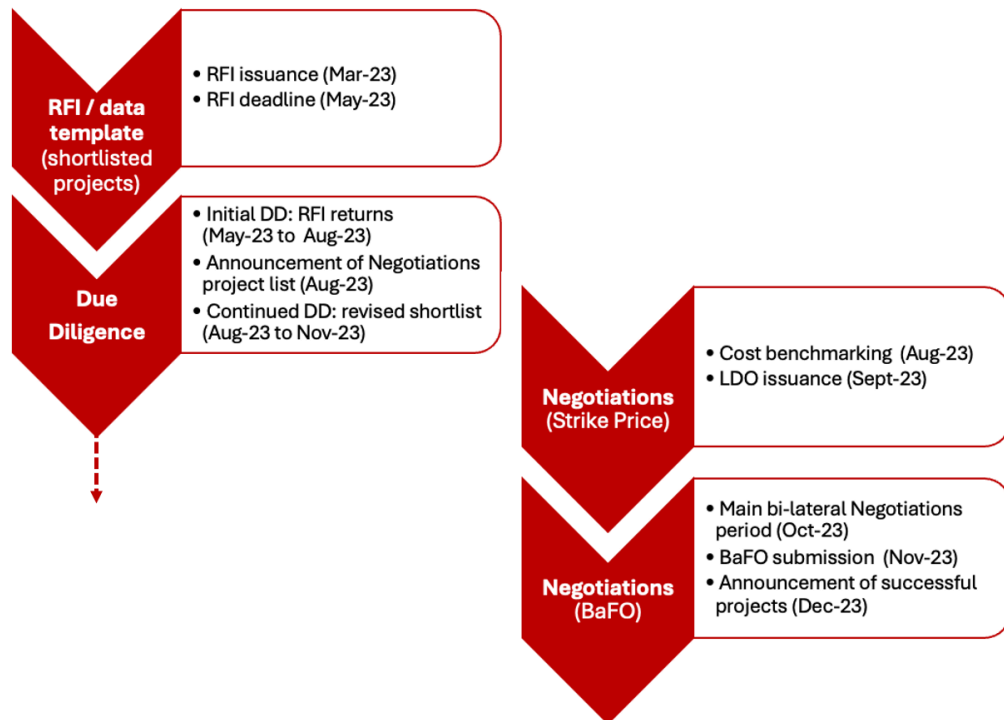


Figure 1. Overview of main activities and key timings within the HAR1 RFI, due diligence, and negotiations stages (Technopolis, 2024)

After the assessment of HAR1 applications<sup>8</sup> against the eligibility and evaluation criteria as set out in the application guidance,<sup>9</sup> DESNZ shortlisted 20 electrolytic projects in March 2023 totalling 408MW of capacity across England, Scotland and Wales.<sup>10</sup>

These shortlisted projects were then invited to proceed to the first step of the Agreeing an Offer stage, consisting of shortlisted projects receiving a request for information (RFI) form and data

<sup>8</sup> Technopolis was commissioned by DESNZ during Q1/Q2 2023 to deliver an HAR1 initial process evaluation (which covered all stages up to shortlisting). See <https://www.gov.uk/government/publications/hydrogen-allocation-round-2022-process-evaluation>

<sup>9</sup> <https://www.gov.uk/government/publications/hydrogen-business-model-and-net-zero-hydrogen-fund-electrolytic-allocation-round-2022#documents>

<sup>10</sup> <https://www.gov.uk/government/publications/hydrogen-production-business-model-net-zero-hydrogen-fund-shortlisted-projects/hydrogen-business-model-net-zero-hydrogen-fund-shortlisted-projects-allocation-round-2022>

template to provide further evidence and support initial due diligence and value for money assessment.

Following the initial due diligence on the shortlisted projects, DESNZ invited 17 projects in August 2023, totalling 262MW and located across England, Scotland and Wales, to negotiations, alongside continued due diligence.<sup>11</sup>

Of the 17 projects that entered final negotiations, 15 projects, totalling 243MW of capacity, submitted a Best and Final Offer (BaFO) and 2 projects withdrew. A list of 11 successful electrolytic projects was published by DESNZ in December 2023 to be offered contracts to deliver 125MW (subject to contract signing), with HPBM revenue support and capital expenditure support through the NZHF.<sup>12</sup>

Table provides an overview of the post-shortlisting activity in HAR1 together with the number of projects and potential electrolytic production capacity at each point.

*Table 4. HAR1 post-shortlisting activities and associated number of project/production capacity*

Timing	HAR1 process / stage	Nb. projects	Capacity
March 2023	Shortlist announcement	20	408MW
Q2/Q3 2023	<u>RFI / Due diligence</u> Initial due diligence and VfM assessment		
Q3/Q4 2023	<u>Due diligence / Negotiations</u> Negotiations, alongside continued due diligence	17	262MW
Dec 2023	Announcement of successful projects to be offered contracts (subject to contract signing)	11	125MW

## 2.1 HAR1 Process Map

A process map is used to visualise a programme's processes and activities in a clear, step-by-step way. Process maps are useful in process evaluations in order to ensure every step of the process is understood and evaluated.

Figure 3 builds on the overview described above and shows a detailed process map for HAR1. It outlines all the major processes and stages involved in the delivery of the scheme, from the engagement and communication activities which were initiated in April 2022, its launch in July 2022, the submission of proposals and subsequent shortlist in March 2023, the due diligence and negotiations stages and announcement of successful projects in December 2023, and the commencement and monitoring of projects during 2024 and beyond.

<sup>11</sup> <https://www.gov.uk/government/publications/hydrogen-production-business-model-net-zero-hydrogen-fund-shortlisted-projects/hydrogen-business-model-net-zero-hydrogen-fund-negotiations-list-for-allocation-round-2022>

<sup>12</sup> <https://www.gov.uk/government/publications/hydrogen-production-business-model-net-zero-hydrogen-fund-shortlisted-projects/hydrogen-production-business-model-net-zero-hydrogen-fund-har1-successful-projects>

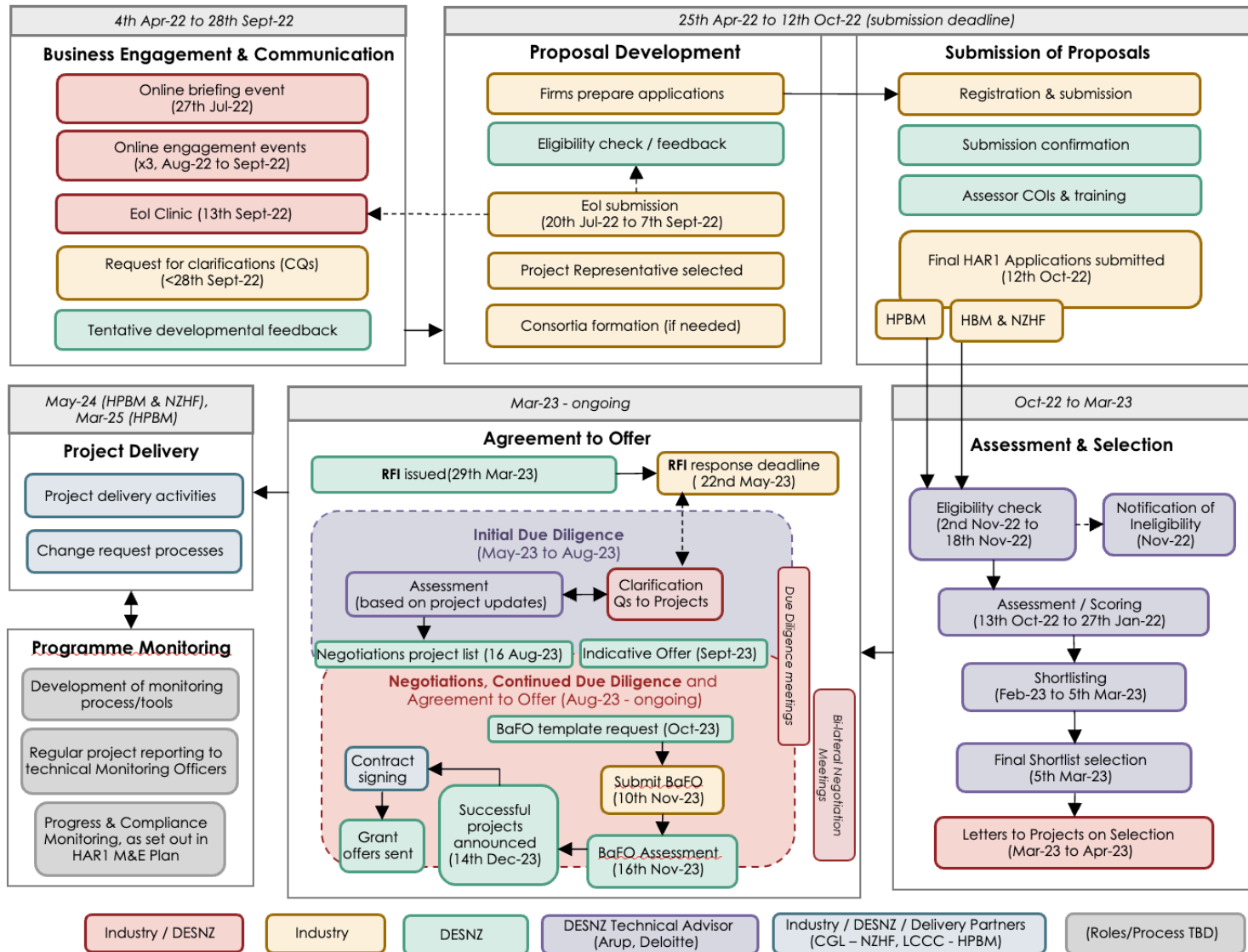


Figure 2. HAR1 Process Map (Technopolis, 2024)

### 3 Findings from Request for Information (RFI) stage

This section addresses the following high-level evaluation questions as set out in Table 1:

- **HLQ1.** To what extent is the design & governance of HAR1 (post-shortlisting) consistent with its objectives [for the RFI stage]?
- **HLQ2.** To what extent and how was the RFI support & handling sufficient?
- **HLQ7.** What insights can be gained from [the RFI stage of] HAR1 (post-shortlisting) to inform the delivery of future allocation rounds?

#### 3.1 Summary of RFI stage

The RFI stage is designed to gather information used for due diligence and cost analysis. The RFI timeline in Figure 3 shows that RFIs were sent to projects on 29th March 2023 required to be returned on 22nd May 2023, and during this, there was a clarifications process for projects to ask questions and for HMG officials and the technical/commercial advisors to seek further clarification. Kick-Off sessions were held during April 2023 with the shortlisted projects.

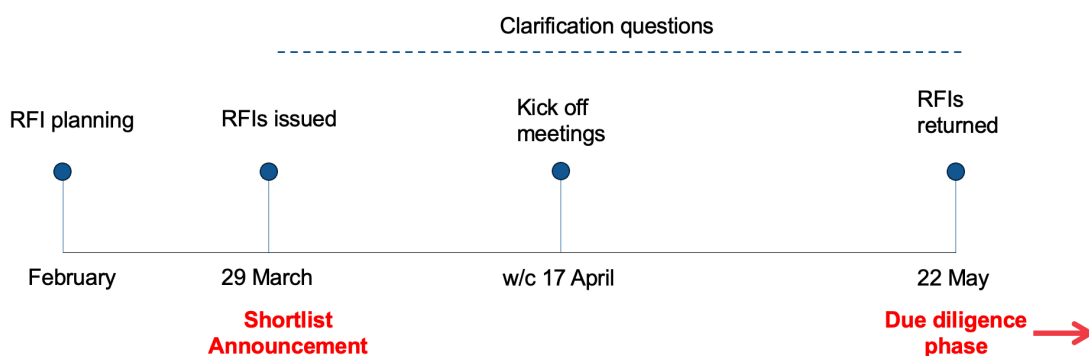


Figure 3. RFI timeline (DESNZ, 2024)

The RFI planning is driven by the information required for technical and financial due diligence. It includes two components, the RFI form (which includes the text-based answers from each shortlisted project) and the data template.

**RFI form:** The design of the RFI form was driven by what was required for the initial and continued due diligence stage. For example, this included whether projects had made progress since the application, as well as technical and financial information. It included a set of generic questions for all projects, with additional project-specific questions where any concerns were raised through assessment. The generic questions were linked to assessment criteria and focused on projects to provide any updates since their assessment. The evidence register tab enabled projects to upload supporting documentation and reference it.

**Data template:** The design of the data template was driven by the cost information needed for benchmarking and cost analysis. Cost estimates were used to carry out relative benchmarking of key cost categories and HMG officials reviewed external sources where possible to inform absolute benchmarking. Cost justification meetings were then held with

projects to challenge where their costs look high. Benchmarking enabled DESNZ to determine internal target value strike prices for each project.

Kick-Off meetings: The Kick-Off meetings held with each shortlisted project from April 2023, were the first opportunity to understand the projects and their teams in more detail. They took place with each shortlisted project and were DESNZ led. Applicants were asked to give an overview of their projects and to provide any key updates they had made since the initial application. The meetings were used to check in on any queries regarding the RFI form or data template and to outline next steps. The meetings were attended by HMG officials, technical/commercial advisors and projects. Generally, the meetings were received well by projects.

RFI forms, data templates and any supporting information were required to be returned by email and uploaded to the SharePoint portal by 22nd May 2023 and initial due diligence checks started shortly after this. It should be noted that there was some variation in the amount of information returned across the shortlisted projects. Some projects were also seen to have used the RFI more as a chance to 'impress' as opposed to just focusing on their deliverability.

### 3.2 Design and governance

Timing: The RFI timing and length were mostly manageable for all stakeholders with appropriate communications and timelines for both successful and unsuccessful projects. Two successful and one of the unsuccessful projects said that the RFI was manageable with sufficient time allocated, while allowing some flexibility for project evolution. One unsuccessful project also welcomed gaps in being able to fill in the request as it gave them time to develop the project more internally. A successful project also noted the timelines were communicated and explained with clear documentation on what HMG intended to achieve in the specified timelines. One unsuccessful project noted that there had been changes in timelines from what was originally stated, whilst another reported that there were no changes they were aware of. HMG officials and technical/ commercial advisors mostly agree that the timing and length allocated to the RFI stage was appropriate but that it could have been a challenge for some projects who may not have had enough time to deal with information requests.

Challenges and obstacles were flagged around the timing and length of the RFI stage:

- **Limited interactions with HMG officials and tight turnarounds for questions.** One successful project highlighted there was not much interaction with HMG officials, and with limited time available from the point of projects receiving any notifications or comments, to the requirement for a significant volume of answers. Emails were said to come through late at night on occasions, so projects had less time to respond. Although the project noted that DESNZ were happy to offer extensions of a couple of days where necessary, without this the turnarounds were said to be very tight.
- **Repetition in the RFI form and areas which could have been shortened,** where the same questions were being asked in multiple ways, as noted by a successful project.
- **One of the technical advisors reported that the diversity in the nature of the projects meant that financial risks were managed differently and therefore, costs varied considerably. This made the assessment process more complex,** and one HMG official said the **speed of analysing and synthesising information was a challenge.** However, this sentiment was particularly linked to this being a first of a kind (FOAK) process.

### 3.3 Support and handling

Communications: Both the successful and unsuccessful projects and HMG officials shared insights into what worked well in terms of how the details on the RFI process were communicated. A successful project said that while it took time to get back on certain items, it was helpful that DESNZ acknowledged the receipt of questions. One of the unsuccessful projects also said the electrolytic allocation mailbox was well administered, while another reported that HMG officials were accommodating around the timings. There were also instances where the opportunities to ask questions were confined to specific time windows, necessitating projects to request extensions. This highlights the need for greater flexibility in the process. Projects may not have had questions during the designated times, but when questions arose later, the opportunities to ask them were limited. A DESNZ official also states that one-to-one meetings and Kick-Off meetings were very helpful, and they are trying to replicate this for HAR2. The DESNZ lesson learned session during 2024 also identifies that the Kick-Off meetings worked well in setting out the next steps of the process and said that projects could raise queries on the RFI and had enough time to get familiar with it.

Communications as part of the RFI clarification processes worked well, according to all the stakeholders. Two successful projects highlight that, when required, they were able to send questions into an email chain and they were answered in a timely manner. Comparably, one unsuccessful project notes that responses to questions came back clearly and quickly, for example, when answering the form, and where sometimes they identified errors in the template. Another unsuccessful project states that it was good to have a dedicated electrolytic hydrogen mailbox to send queries to and that this was well-monitored, as they received responses within a day or two. One of the unsuccessful projects describes how the responses were good but not necessarily fast (although not too slow to have caused an issue). HMG officials generally are of the view that the clarification process during the RFI stage was good, whilst technical/commercial advisors also state having sufficient interaction with projects and that there was enough information to identify concerns. They also said that connectivity among HMG officials and with projects worked well.

Communication and clarification challenges are highlighted by HMG officials, the technical/commercial advisors, and the projects however:

- While two unsuccessful projects note that the communications were good and clear, there were times where **it took time to get back on certain items**.
- Challenges around the **level of dialogue and face-to-face interaction with DESNZ** are highlighted by the successful projects, with one noting they think the decision making was not always clear to them.
- While there was a well-maintained mailbox interface, it would have been good to **engage more directly with a person appointed who understood the project in more detail** (according to one of the successful projects). An unsuccessful project also welcomed the extension of short turnaround times on responses and said that DESNZ were quick to respond to questions. However, they note some confusion on the admin side where projects were unsure if they were talking to one person in the inbox or multiple.
- One of the successful projects notes there was a somewhat **ad-hoc format and lack of formal structure**, and that it was unclear what was going to be asked, and so faced some difficulties in resourcing effectively. To try and mitigate some of these challenges, two successful projects think the RFI clarification processes should have more face-to-

face meetings in smaller groups with more relevant people. One successful project suggests having a dedicated DESNZ main contact point at earlier stages for applicants.

- With regards to clarification processes, some successful projects suggest it would be more efficient if there were **more standardised and open clarification channels**. This is underlined by one unsuccessful project who reports a lack of clarity in meetings and processes.
- A difficulty sometimes in identifying a potential project Conflict of interest (COI) is noted by one of the technical/commercial advisors, due to a lack of clarity on which particular organisational entity(ies) was bidding as the project. A suggestion made here is for there to be a **more complete/clearer view required of the specific project applicant entities** (some technical/commercial advisors with a financial role are regulated businesses that are required to use a particular internal process to determine if a project applicant has a COI).

*“So, you do not feel like you are engaging with a mailbox because naturally, you do not necessarily know when or who is going to answer that and I think sometimes there are certain questions where just by being able to speak to an individual you can understand better why or what is it that is being asked of us and what it is that they want to understand so that we can answer the right question.” Successful project.*

*“You were essentially asking clarification questions on a pretty big subsidy by an Excel sheet, so I would say there is plenty of scope for improvement around that.” Successful project.*

Data templates: Evidence from all stakeholders suggests that the data templates during the RFI stage were comprehensive and clear. Both successful and unsuccessful projects and HMG officials agree that RFI templates were clear and communicated effectively. Most of the unsuccessful projects also feel that questions asked were clearly defined. One unsuccessful project said it allowed them to add reference documents so they could fully articulate what they wanted to about their project again at that stage and give a good view. This view was also shared by the technical/commercial advisors and HMG officials who said that templates were made well, provided plenty of adequate information to see project changes, especially with the supplementary annex for major changes, and questions were clear.

The successful projects, however, identified the following challenges with the data templates:

- **Projects had to provide too broad a set of documents and, therefore, the request was not sufficiently sharp**, according to one project. During the RFI stage in HAR1, a successful project points to where they felt they had to provide a large amount of documentation/attachments “on everything” and also where the assumed stage of the project (i.e., final investment decision) and documentation requirement was more advanced in their view than was realistic for the process at that point for them. This project also notes here though that their subsequent experience of the documentation requirement in the RFI stage of HAR2 is that it has “become clearer and more refined”.
- **There was a repetition of information within the data annex and according to one project**, sometimes one question was being asked in three different ways.
- **Difficulties experienced due to changes made when actively developing projects**, according to multiple projects. Issues were experienced with some of the formulae that did not work, and they did not always have confidence that it was sufficiently resolved



and where it was 'hard wired' and locked so could only change certain cells. One of the successful projects notes templates should be tested more before going out to projects as they had to report some issues with templates which were not resolved immediately. Moreover, when data templates were reissued, changes were not always flagged in the new versions.

- **Some of the financial information had a level of ambiguity and was left for interpretation**, according to one advisor which provided a lack of clarity. As such, they suggest having a standard pro forma on financial information would benefit all parties.
- **There is also a perception that the RFI was more applicable to certain kinds of projects and that it did not always fit with the projects.** For one of the successful projects, it was a challenge to get data into the format of the RFI form and to manipulate the data to fit in it. It took a while for them to understand which numbers went where in the RFI form and because they did not have visibility on what was behind the RFI tables, in some cases they just put in numbers as they saw best fit, not knowing how they were going to be used. This project suggested that providing more definition around each RFI line item would have been useful.

*"Some instances where questions were being asked more than once with a slight change in wording." Successful project.*

*"... understood that the Excel was locked to ensure people are not amending anything unforeseen ... could not see the formulas. For example, we could not identify the conversion factor. Being unable to see the formula made it hard to check and there were cases where one of the conversion factors was wrong and DESNZ had to send an updated template." Successful project.*

Support: Regarding how the RFI support was perceived by projects generally, some of the projects responded to this positively. One successful project reports that the RFI guidance was helpful, for instance, on the scoring criteria. One unsuccessful project adds that HMG officials were accommodating with timescales and flexible if a project said they could only provide something within a certain amount of time. Another unsuccessful project said they were happy with the SharePoint portal at the RFI stage.

However, projects raised challenges to the support provided:

- There was a good general level of communication and responsiveness from HMG officials (as mentioned earlier in this section) but there were times where **it took some time to get back on certain items**, according to one project. This also relates to an unsuccessful project that reports a general sense of insufficient resourcing in their view, with a high volume of work. They note that although HMG officials did a good job, when they have been in contact, it took some time to get back to them.
- **Some of the successful projects note there was a degree of misalignment between HMG expectations of the project maturity/stage** relative to where projects are actually at in their development life cycle. For example, one successful project felt they could not be certain on some costs until a certain point in future they were expected to provide. This created a degree of deliverability confidence challenge for projects and resulted in tensions between the need to balance confidence that applicants can deliver projects to time and where it could have helped to have more support from HMG on certain engagements.



*"... confidence in projects and having the support to build the economics of the project then confidently be able to secure offtake contracts with end users. That whole value chain does not come out very well as there is an expectation through the process that projects should be further advanced than in reality." Successful project.*

HMG officials and the technical/commercial advisors broadly agree that the RFI stage was generally clear and that its associated communications were effective. HMG officials describe how the RFI support was well-received by projects, clear and served its purpose. With one official noting that the department issued an extensive commission with lots of guidance, and a revision to the spreadsheet with technical points. There were also engagement meetings with projects on what information to extract or supplementary information. They supported projects on where to focus to avoid wasting time if projects submitted additional items they did not need to. HMG officials felt that they received the information they needed from most projects and stated that the way they asked for the information was straight forward.

Understanding: **The successful and unsuccessful projects mostly report that that they understood how the RFI data was used** and that the process was clear. For example, one successful project highlights there was a clear breakdown by section on deliverability and additionality. Another successful project describes how it was useful to know how much additionality and other factors were valued so they were able to dedicate proportionate time and effort onto these sections. This was echoed by an unsuccessful project that notes they were able to interpret why they were being asked something and felt they knew of the scoring matrix DESNZ used to shortlist the questions.

**The RFI stage did appear to be like the application process again**, for one of the unsuccessful projects. Although they understood it as a process for HMG to get updates on the project status (as this was 7-8 months later). Two other unsuccessful projects also report they did not fully understand why certain things were being asked. This related back to narratives around transparency and not knowing where they scored relative to other applicants which made it difficult to understand why they were being asked a particular set of questions. To help mitigate some of these challenges, one of the successful projects suggests having more definition on how RFI data tied in with the LCHA inclusion and exclusion mechanism.

### 3.4 Lessons for future allocation rounds

- **Enhanced programme/stakeholder management processes and more definition/information sharing with projects to provide more consistency and clarity.** Some projects were unclear if they were talking to one person in the inbox or multiple, which resulted in some confusion in relation to continuity of their internal processes. Short notice periods for meetings made it difficult alongside managing the process for the projects and other external meetings. More definition and notice of changes in advance would be helpful so projects can be better prepared. There were some occasions where changes to meetings on the day caused disruptions with cancelling other internal meetings.
- **Informing projects in advance of the type of information required would further facilitate the process.** For example, publishing RFI templates in advance. Regarding the cost breakdown sheet, one unsuccessful project said if they had known about the categories that costs were put into before, they could have requested the output in that format. However, due to the lack of early visibility, the numbers had to be broken down by guesswork, which affected their accuracy for this project.

- **Improvements could be made to the types of tools used to handle data and additional testing of templates before they are provided to projects would support a more effective and efficient process.** A lack of cohesion in the units the templates measure compared to the subsidy standard could be addressed (kg vs the standard TWh that the subsidies and LCHA is based on). One unsuccessful project said this affects how contracts are drawn.

## 4 Findings from Due Diligence stage

This section addresses the following high-level evaluation questions as set out in Table 1:

- **HLQ1.** To what extent is the design & governance of HAR1 (post-shortlisting) consistent with its objectives [for the due diligence stage]?
- **HLQ3.** To what extent and how was the due diligence support & handling sufficient?
- **HLQ5.** How effective was [the RFI] and due diligence process?
- **HLQ7.** What insights can be gained from [the due diligence stage of] HAR1 (post-shortlisting) to inform the delivery of future allocation rounds?

### 4.1 Summary of Due Diligence stage

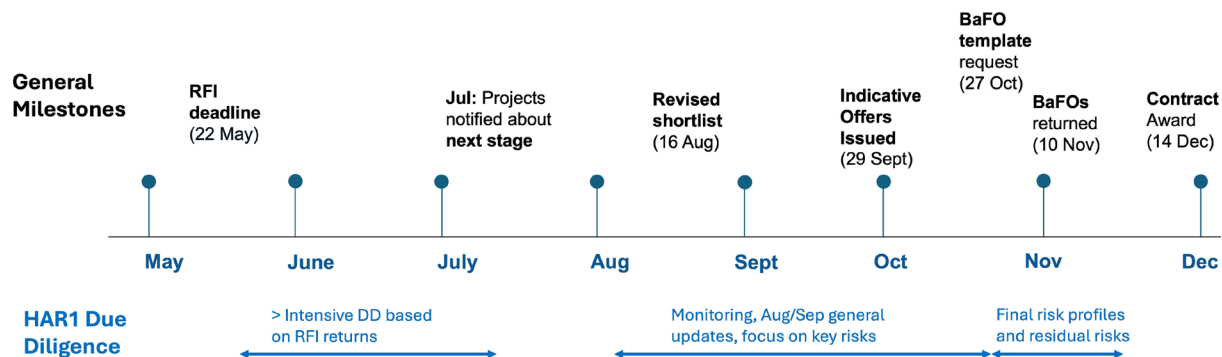


Figure 4. Overall process from RFI data receipt to announcing successful projects to be offered contracts, covering initial/continued due diligence and negotiations timeline (DESNZ)

The due diligence stage ran between May 2023 and October 2023. It officially commenced on 22nd May 2023, once the RFI documentation had been submitted by the projects to the HAR1 design and delivery team. This period included: a) the due diligence assessment of the updated project progress, based on RFI information; b) a Clarification Questions (CQ) period; c) internal benchmarking setting for Indicative Offers and Highest Acceptable Bids (HABs); (d) due diligence meetings between DESNZ and the individual project teams; and, e) production of a 'negotiations project list' of projects to move on to the final stage. The latter two points overlap with the negotiations phase, as discussed further in section 5.

The due diligence stage can be considered as two phases: 1) the initial due diligence, running from May 2023 to August 2023; and, 2) continued due diligence, running from August 2023 to November 2023. The first phase included around five weeks of initial (and intensive) due

diligence based on the RFI submissions. After this initial due diligence, project progress and key risks were monitored via collected updates between August 2023 and late September 2023. This included detailed expectations for projects with areas of significant risk. Projects were liaised with on an ad-hoc basis to work through changes, view existing or new areas of risk, and to understand progress. In July 2023, projects were notified of next steps following the initial due diligence assessments.

The Clarification Questions were defined as needed. Projects received the questions via email and were given around two days of turnaround time to provide their responses. There were no explicit dates for when the questions would be issued or how many rounds would be sent.

The benchmark setting<sup>13</sup> was an internal DESNZ activity that took place concurrently with and beyond the project due diligence checks. It was informed by the updated information provided by projects in the RFI forms and data templates, as well as market and cost insights from DESNZ and technical/commercial advisors.

The amount and frequency of meetings varied by project and clarification need. Projects received a meeting invitation via email and had around two days of turnaround time. There were also no specific date requirements for when the meetings took place.

The 'negotiations project list' of projects who passed the initial due diligence phase was published on 16th August 2023. This officially indicated the projects that will continue through to the negotiations stage (negotiations project list). Due diligence continued throughout the negotiations phase, thus running through to October 2023.

## 4.2 Design and governance

The intended aim of the initial and continued due diligence stage was to ensure the shortlisted projects were able to progress to the negotiations and then, project contracting and construction/delivery. It sought to assess project updates/submitted information (via the RFI) on deliverability, risks, Value for Money (VfM), and other project progress since the initial applications submitted in October 2022. And where deliverability is defined as the *"ability to deliver by the required Commercial Operation Date (COD), comply with LCHA requirements, and operate successfully for the duration of the 15-year contract."*<sup>14</sup>

Due diligence assessed deliverability with the objectives of:

- 1) identifying undeliverable projects,
- 2) maintaining an accurate/detailed understanding of deliverability risk profiles to inform HMG decisions,
- 3) (implicitly) prompting projects to improve their deliverability.<sup>15</sup>

First of a kind: HAR1 was a **first of a kind (FOAK)** allocation round, focussed on kickstarting the electrolytic hydrogen economy, with the appetite to take through all projects with a 'credible' route to delivery. It is expected that in HAR2 and beyond, there will be greater competitive

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<sup>13</sup> DESNZ developed a comprehensive cost database by the start of the negotiations. Evidence building to inform cost benchmarking based on the RFI returns (May-23) ran alongside the due diligence during June-23 to Sept-23. The benchmarks were employed to challenge the cost assumptions of the projects and to inform the Indicative Offers, with DESNZ effectively combining relative and absolute benchmarks.

<sup>14</sup> HAR1 Lessons Learned, DESNZ, January 2024.

<sup>15</sup> *Ibid*

tension and changing risk appetites. This sentiment increased the consideration given to the due diligence questions leading up to the BaFO.

There is unanimous recognition from HMG officials as well as projects of the FOAK nature of this first allocation round. Both sides recognise that the process and detail of the design (e.g., cost benchmarking, detail of information needed to assess deliverability) continued to be developed throughout the process. Nevertheless, respondents see this period as having met its objectives.

Timing: Broadly, the **length of the due diligence period was seen as appropriate**, both by HMG officials and the projects. Delays in timelines were noted throughout the period, but not seen as an issue and attributed to the newness of the policy. Delays were attributed to: a) adjustments and adaptation of the due diligence process and level of project information needed; b) longer than expected timeframes of government internal negotiations.

Technical/commercial advisers also note here the timeline restrictions on the parallel cost benchmarking work, which arguably led to more difficult assessments towards the end of the due diligence and in the negotiation stage.

A common finding across all stakeholders is that the due diligence and negotiations **stages overlapped**. This created some uncertainty for projects, such as on the purposes of meetings, clarity of the beginning of negotiations, and the state of project maturity expectations. However, officials see the integration of these two parts of the process as being important to the ultimate success of HAR1 and note that it worked relatively well. With its novelty, the flexibility and lack of clear delineation between the due diligence and negotiations stages can be viewed as facilitating the overall process.

Overall, HMG officials felt able to meet their goals to progress the viable projects to the next stage. At an overarching level, HAR1 can be considered to have brought significant amounts of technical interest and substantively progressed the UK in the international green hydrogen arena.

### 4.3 Support and handling

Project applicants see the due diligence mechanism and communication means as clear, timely, and helpful. The largest concern of note across successful and unsuccessful projects is the lack of clarity on the overall process and time frames expected throughout. Projects did receive the general guidelines of the major processes of phases within their RFI letters. However, the details of when bilateral meetings would be held and their agendas, the assessment expectations, and the transition to negotiations phase were not clearly defined.

Communications: Projects found **most communications during this period clear and helpful**. In particular, the notification mechanisms are seen as particularly helpful, such as when applicants received an email in parallel to the process to notify of new questions requiring attention in the SharePoint portal in relation to the templates. The SharePoint and email communications are seen as well managed. Furthermore, both successful and unsuccessful projects think it was relatively easy and efficient to ask DESNZ details on how to answer the questions.

However, **most projects also note being unclear about the details of the expected process, overall**, suggesting more communications is required from the project applicants' side to facilitate and support their planning. One project suggests the use of a relationship manager during this phase. Yet, as noted above, most recognise and attribute this to the novelty of the phase, and expect the processes of future HARs to be more clearly defined.

Templates and submissions: **Overall, templates and questions presented in this period were clear to most applicants.** Successful projects were more likely to respond on clarity of the templates. Some frustration is noted though with the Excel template changes, but this did not create a large negative effect on the project applicants. It is understood that the DESNZ assessors were compiling questions and submitting them to projects in batches to aid efficiency. On the other hand, some of the projects suggest a channel where one could put in questions at any time.

Timings: Some of the projects found the **two-day response turn-around period for Clarification Questions (CQs) too short.** The timeframe meant that the project teams needed to quickly shift attention from ongoing work and quickly gather the necessary information. The overall time frame of the due diligence stage is considered appropriate in this first allocation round though. However, applicants expect this period to decrease in future rounds based on HAR1 learnings and more clarity and efficient on processes.

Meetings: Projects indicate they **appreciated being able to have meetings with DESNZ** throughout the due diligence process. However, undefined timelines and a more unilateral nature created some complications and confusion for some project applicants.

Similarly to the CQ turn-around time, projects note that the two-day notice period for meetings put significant pressure in some instances on the project teams. It meant having to cease other planned activities to ensure preparedness and availability for the meetings. This is also complicated by unclear distinction of the due diligence meetings versus the negotiation meetings, resulting in projects not always being clear on the purpose or agenda of the discussion. Some projects express that they **did not have sufficient clarity on the meeting topics** prior to the calls, and suggest that an agenda could have been shared ahead of the meetings. One successful project notes that they had multiple meetings to discuss the same proposed cost points but that they did not have control over/could not change these, which did not add value.

Additionally, **projects describe that the meetings were less bilateral than expected.** While, this was pointed more towards the negotiations discussions, some projects note the due diligence stage would benefit from more tailored engagement steps with projects and further clarity on how the due diligence processes relate to and result in the progression of a project. The dialogue projects had with HMG officials during the due diligence stage included large meetings with multiple attendees, which in some instances also included senior HMG representatives. One of the projects specifically highlighted a preference here for a more 'informal' meeting and that it could be more efficient to have clarification processes in smaller groups tailored to the requirement of the agenda and discussion(s) in focus.

One project notes that during the pre-shortlisting process there were check-ins whereby they could ask how to interpret different points. They suggest to have 'drop-ins' for projects to stand up and ask questions/clarifications.

*"... should have met once earlier – once shortlisted, to understand the process. We asked for a meeting when we had a problem or needed clarification. But would have been more beneficial to have proactive meetings on what the plan is." Successful Project.*

Several projects highlighted a point on information flow during the due diligence and where as an 'information taker' (e.g., they did not have influence over DNO price/costs) they felt that the questions being asked on cost in the later stages of the due diligence phase were pushing projects to lower costs that they did not have control over. For example, a successful project

reported that they did not feel it was their place to go to the DNO and ask them to change peak costs and it took them a considerable amount of time and effort to convey this information to DESNZ, which used up resource. They thought that DESNZ were pressing in area that was “not going to impact the overall economics of the project, because the project cannot change it”.

#### 4.4 Effectiveness of Due Diligence process

The effectiveness of the due diligence stage was in part affected by the effectiveness of the RFI information provided. As stated above, most of the RFI information was adequate and provided a good view of the updated information of the projects and their status. However, the initial due diligence soon after the RFI returns, coupled with a less transparent view of HMG prioritisation in this phase, presented a challenge to projects.

Clarification Questions (CQs) timing: Most projects highlight that they **could effectively answer the questions** arising throughout the due diligence stage, based on the communications and guidance provided, and as described above. At the same time, both projects and DESNZ officials saw the timeline of the due diligence process as reasonable. However, the timing of when the CQs came in and some of the types of questions requested suggested inconsistencies in project and DESNZ expectations of project maturity.

Firstly, most projects note that the initial due diligence phase came too soon after the RFI responses. For example, the first batch of CQs that came up as part of the due diligence immediately post-RFI were seen by some projects as repetitive to the RFI questions. It also appeared that the projects were being asked the same question in different sections, such that there was not a holistic picture of how the data was taken. This meant providing information that was not significantly different for the RFI information recently provided. This can be seen as a reason for the multiple meetings and repeated CQ batches.

Several HMG officials and technical/commercial advisors note the due diligence could have been **more proportionate to the nascency and maturity of the projects and market**. As projects had provided a sum of information at the RFI stage just a few months prior, there was little time for projects to progress from this information by the time the due diligence questions commenced.

During the due diligence, **one challenge for projects was the escalation of pricing**. Some projects noted specific supply chain challenges with respect to timing (and at least for two successful projects). They were asked to submit data and keep the prices valid but when the back-end dates moved, they reported having to go back to the supply chain and revalidate the costs. It would have been helpful if this process could have been quicker and with bi-lateral discussion with DESNZ. At the same time, an official suggested a quicker due diligence process overall, to decrease these cost changes.

Internal Timing: A timing challenge for the CGL Secretariat, the delivery partner for the NZHF, was not having clear sight on the final grant amount being requested by projects in relation to the due diligence they needed to perform. However, as due diligence continued throughout the negotiations period, this was able to be mitigated, as grant amounts were discussed as part of negotiations. A potential consideration would be to have the CGL Secretariat become more actively involved at the stage of negotiations to complete. On the other hand, with expected HARI learnings and growth of the hydrogen market, these cost questions may become appropriate to ask projects prior to the negotiation phases.

Effectiveness of assessment and criteria guidance: Most projects state that **the due diligence criteria and information required was mostly clear and reasonable**. Projects largely view the due diligence stage as a secondary assessment phase based on the updated information of their projects. Some projects **did not fully understand how the information, and the project, was going to be assessed**. For example, some projects were having difficulty in understanding the criteria against which their updated information was being measured. Moreover, they were not able to tell why they were successful (or not). This stemmed from being unable to see how a project scored on deliverability or contribution to local community. Thus, they were unable to learn from the project structure for the future or know what the rest of the market was focusing on. In addition, unsuccessful projects would not be able to compare themselves to a successful one.

*"... we were able to interpret why we were being asked something. And knew of the scoring matrix DESNZ issued to shortlist the questions. In the RFI we could figure out why DESNZ are asking something. Like power pricing – probably interpretive of VfM assessment, because we may be high. Questions on supplier arrangements – scored on deliverability. Triangulated that we are getting asked this, and because of this criteria. We might not be so competitive on that. Loops back to transparency – by not knowing where we scored relative to the bidders, did not know where stood. Makes it tricky to understand why we're being asked a particular set of questions." – Successful Project.*

Towards the end of the continued due diligence phase, two projects decided to not continue through the full negotiations and submit a BaFO. This was partly due to their perception that their project was less prepared than they would have liked to be at that stage. It is likely that this decision was also influenced by a lack of the clarity on whether the project would be successful or not.

*"As this becomes more competitive and pricing is determined not by bilateral negotiations but through a commercial auction, then hopefully we expect that the government will step back and ask for less information with the view to let the market forces determine the best projects or the most competitive ones coming forwards." Successful Project.*

Transparency and fairness: Overall, both successful and unsuccessful projects think that the due diligence process was fair. Everyone had the same information. However, most note difficulties with the due diligence process itself, in the lack of clarity on steps and delays in the anticipated timeline. This made it difficult for some projects to make decisions, and a few perceived this as lacking transparency. The transparency aspect was further questioned due to the lack of clarity projects felt regarding the criteria aspect mentioned in the section above.

Governance: Due to the first of a kind nature of this round, DESNZ officials note that the high amount of governance, time for sign offs and feedback, and internal negotiations translated into some of the delays and lack of clarity seen by projects.

Benchmarking: The process and derived information from the benchmarking exercise was not shared with projects. This was intended to promote value for money and competitiveness among projects. This activity further informed and was leveraged in the negotiation stage. However, feedback from the competing projects shows that more transparency on this process would have been appreciated, given the nascency of this market. Some also think that the costs benchmarked were not as applicable or realistic to all projects. Projects not as comfortable with the lower cost rates noted concern over the deliverability of projects that projected these lower numbers, and the influence it had on their own negotiations. It can be



assumed here though the benchmarking at the due diligence stage will have a larger reference dataset in future allocation rounds, given the experience of HAR1, which will enhance the negotiations stage accordingly. A suggestion is made that more transparency be employed to benefit the growth of the market, while leaving appropriate room for competition. DESNZ acknowledge this recommendation and the need for more transparency in this process. In future HARs, DESNZ see the value in explaining in more detail the process to arrive at the costs benchmarked but need to consider the commercial sensitivities in sharing more information around the benchmarking exercise.

#### 4.5 Lessons for future allocation rounds

- **The due diligence stage would benefit from more bilateral/tailored engagement with applicants** (e.g., meetings in smaller groups (rather than larger groups with senior HMG officials) tailored to the earlier and later stages of the due diligence/overlap with the negotiations and to further help support/guide the process for the projects as appropriate/applicable.
- **More clarity/communication around how projects will be judged would be helpful and facilitate the process for project applicants.**
- **Further clarity of timeline and process would help projects better resource their applications and use time more effectively.** This has been actioned for HAR2 and projects will receive clearer guidance on the process, including timings.
- **Further definition on how submitted information is weighted would support projects to more effectively respond with their submissions and identify areas for improvement and strengths.**
- **Possibility to decrease due diligence time frame in future allocation rounds, based on process learnings in HAR1.**
- **Additional targeted HMG discussions with projects (in relation to their supply chains, feedstock)** during the due diligence may further support alignment between the projects and DESNZ (e.g., on benchmarking), as well as help enable more effective and efficient discussions between the projects, and their supply chains.
- **Instances where projects are an 'information taker' in the due diligence (e.g. DNO price/costs) could be taken into account more as part of the flow of information between the projects and DESNZ.**
- **Enhanced communication** between technical/commercial advisors and HMG officials, e.g., **earlier guidance to technical assessors** on level of information required for reporting to DESNZ, to allow better planning and avoid duplication and inefficiencies.
- **Develop cost benchmarking earlier.** This learning is already being taken into account by HAR2 – and is largely mitigated with the cost benchmarking conducted in HAR1.

## 5 Findings from Negotiations stage

This section addresses the following high-level evaluation questions as set out in Table 1:

- **HLQ1.** To what extent is the design & governance of HAR1 (post-Shortlisting) consistent with its objectives [for the negotiations stage]?



- **HLQ4.** To what extent and how was the negotiations support & handling sufficient?
- **HLQ6.** How effective was the negotiations process?
- **HLQ7.** What insights can be gained from [the negotiations stage of] HAR1 (post-Shortlisting) to inform the delivery of future allocation rounds?

## 5.1 Summary of Negotiations stage

The negotiations stage was structured and approached by DESNZ with an overall aim to ensure that only deliverable projects that represent value for money are awarded contracts/LCHAs. It involved HMG officials and consisted of two key components for the 17 projects invited to negotiations.<sup>16</sup> Namely, the development and agreement of a strike price (SP) for each project,<sup>17</sup> and the submission and acceptance of each project's Best and Final Offer (BaFO) for contracting.

For the strike price, the cost estimates/benchmarks for each project developed as part of the due diligence stage were used by HMG officials to scrutinise and determine their internal value SP. An initial engagement "Cost justification" meeting was held with each project during August 2023 to challenge on whether costs looked high. Bilateral SP negotiations then opened with an Indicative Offer from HMG to the projects on 29th September 2023.<sup>18</sup>

The main negotiations process ran during October 2023 until an agreement was reached in relation to the Indicative Offers, which were in effect internal DESNZ SP estimates, based on benchmarking, used to guide the negotiations process towards each project's submission of BaFO by 10th November 2023.

Each BaFO was then considered by the DESNZ Negotiations Leadership Team (NLT),<sup>19</sup> and 11 successful projects were announced on 14th December 2023 with an awarding of contract/LCHA.<sup>20</sup>

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<sup>16</sup> <https://www.gov.uk/government/publications/hydrogen-production-business-model-net-zero-hydrogen-fund-shortlisted-projects/hydrogen-business-model-net-zero-hydrogen-fund-negotiations-list-for-allocation-round-2022>

<sup>17</sup> The strike price reflects the projects lifetime cost of construction and operation and determines the level of subsidy offered by HMG. The aim of negotiations at this point was to agree an acceptable strike price with each shortlisted project. With the key components of the strike price including the following: CAPEX (production facility, site development, pipeline transport, trucking); Non-electricity OPEX (stack replacement, fixed, variable); Electricity cost (electricity price, electrical efficiency [MWh consumed per Mwh H2 HHV]); and Cost of capital (post-tax IRR).

<sup>18</sup> The bilateral strike price negotiations with each project opened through an Indicative Offer (i.e., Lowest Defendable Offer) with an underlying objective for HMG to balance the driving down of costs while ensuring that each offer is defendable and deliverable. Although, it is recognised within DESNZ that the potential impact of the Indicative Offers may be partially reduced now that the weighted average strike price of HAR1 is in the public domain (and even if the objective of using it as an anchor to drive down prices may still be feasible).

<sup>19</sup> The Negotiations Leadership Team (NLT), an ad-hoc internal DESNZ grouping, met after projects were shortlisted up until contracts were awarded. This group was responsible for setting the direction of negotiations as defined by the 'Negotiations Strategy'.

<sup>20</sup> It should be noted that while none were made during HAR1, DESNZ were potentially able to (if needed) issue a Counter Offer (CO) to projects with a rejected BaFO during December 2023 (i.e., for instances of a BAFO just over HAB/threshold), based on updated HABs. Projects could either accept this or not within a two week timeframe.

## 5.2 Design and governance

HAR1 was in effect a price discovery allocation round and it helped to unlock FOAK projects. The main objectives of the negotiations have been to ensure through a timebound process that the successful contracted projects are deliverable, affordable, and represent value for money. With any decision to award support and a LCHA only being made subject to HMG being comfortable with the application of subsidy control requirements and any balance sheet implications.<sup>21</sup>

A broad perception is found among both the successful and unsuccessful projects that **HAR1 has been a fair process** through the negotiations stage, with two unsuccessful projects and six successful ones indicating this specifically.

However, while four of the successful and two of the unsuccessful projects indicate that the process has been transparent overall and through the negotiations stage, three **projects do not see HAR1 as being completely transparent** during the negotiations. One of the unsuccessful projects further notes, that while there has been transparency in what the assessment criteria will be, what was not so clear, as a project applicant, is that ultimately in the negotiations phase, it came down to a *“straight shoot out on price”*. In their view, this was not presented that way by DESNZ. Whilst there was always a strong message of credibility and deliverability of projects, it was felt in the end that it did not matter as much how deliverable the project was. Another unsuccessful project also challenges how DESNZ undertook negotiations. In their view, DESNZ put a price 'on the table' and they then had 3-4 meetings to accept that price or leave it.

A perception is also found among both the successful and unsuccessful projects that **the timing and length of the negotiations stage is too 'time constrained'**, with two successful projects specifically indicating that it seemed short for what was required. An unsuccessful project further notes that they *“did not get out of it what they would have liked”* due to the time available. For some, the **due diligence and negotiation stages were more intertwined and less distinct than anticipated or communicated to them** (due diligence involved more two-way communication than expected, while negotiations were less so) However, a DESNZ official notes here that the relatively short negotiations window might have been an advantage as it helped projects to agree certain positions in an efficient manner and avoided more protracted negotiations and excessive back-and-forth between projects.

One of the significant challenges highlighted with HAR1 by DENSZ (and including for the negotiations) was that it was a **'FOAK' allocation round with a steep learning curve**. For future allocation rounds, the experience from HAR1 and having had more time to design the process and to prepare for approvals / milestones during the process will be helpful.

A number of **changes/adaptions to the negotiation stage** are identified as having been made during the post-shortlisting stages. Some of the unsuccessful projects did not see these as having been implemented as well as they could have within HAR1's design. One of the projects notes that while two pathways were originally communicated (i.e., bilateral negotiation and 'straight to BaFO') it then appeared that the bilateral negotiations pathway *“was not happening”* and there was a lack of clarity for the project applicant. Although there is an

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<sup>21</sup> The 11 successful HAR1 projects have been agreed at a weighted average strike price of £241/MWh (2012 prices: £175/MWh) and at around £9/kg.

acknowledgement here that the process was still forming for DESNZ and that the detail was still emerging. In terms of clarity of the negotiations process, it is suggested that even when it is changing/developing, DESNZ could share a timeline and a plan forward with a longer time horizon where possible.

### 5.3 Support and handling

The project applicants indicate that while there was a level of understanding for them of how the negotiations process works, based on the guidance provided, having gone through the process they have improved their understanding. One successful project suggests that an improved structure, efficiency and streamlining would have helped with this. Also, while the parameters of the negotiations were laid out by DESNZ according to one of the successful projects, they did not think these were "*sufficiently discussed*" as there was not much verbal dialogue with DESNZ. This view is echoed to a degree by one of the unsuccessful projects who do not think the parameters of the negotiations were clearly defined/discussed.

Five of the successful projects describe a **need for more communication points to be designed into the negotiations process** and as there was a rather low level of interaction with DESNZ, with one project indicating that they "*... would expect a bit more back and forth or a bit more communication throughout that process because at the end of the day it is a negotiation, and you know there are going to be compromises on each side. But I think that it did not allow for that*". The communications and clarifications received during the negotiations process were perceived by two of the successful projects to have been appropriate, timely and where DESNZ were responsive (and with a suggestion that the overall timescales could be shortened). While this view is not explicitly shared by the unsuccessful projects, however, one notes that if they had questions, they assumed they would have been able to ask them and to receive an answer. It is also noted by a DESNZ official here that while the clarification process was mostly appropriate and timely in their view, it was held up in some instances because one or two projects were slow with their communications.

A **lack of clarity on the start of negotiations** is highlighted by the projects, with the lack of bilateral discussion creating some difficulties to identify that they were actually in the negotiations stage. One of the unsuccessful projects indicates the negotiations stage was compressed to 4-5 weeks from their first to last call – which is a short window for negotiations in their view. One suggestion made here is to run group sessions for the projects to raise issues with DESNZ and to provide an opportunity for more explanation and clarification, "*such opportunities were few and far between and [DESNZ] had fewer sessions covering a large number of issues which made it difficult to cover everything*".

Some **lack of clarity on the Indicative Offer** is also seen by the projects, with a successful project reporting that there was little discussion with DESNZ about what they were going to receive and what it would mean for the project (and a suggestion made here is that this could be introduced verbally at a meeting). Two other successful projects also report that a justification was not provided on how the Indicative Offer was derived, with one project indicating they were told that this was based on submitted projects and market data, which they were not clear on as there was no market at the time and where there are many nuances between projects. Another project comments that it was not able to get supporting evidence for the Offer from DESNZ, "*When they presented that Indicative Offer, we never understood where some of the numbers were coming from or what the rationale behind it was. It was very difficult to get any substantial feedback ... or supporting evidence.*"

The **perception of the cost justification engagement by projects is found to be mixed**. While one successful project indicates that the process worked well, and that they appreciated the

personal engagement and communication by DESNZ, another project expected a more collaborative process with DESNZ, which they describe as one way, with DESNZ giving strong feedback on deficiencies in their proposal. There are also some concerns regarding the sharing of market intelligence with HMG, with a project reporting they had to share evidence on every cost. In their view, this level of scrutiny was not strictly necessary and if reduced, could compress timescales. There is also a perception that DESNZ 'pushed' for the justification of costs, without full explanation of the need, *"we were pushed at times to explain the costs. We did not understand in some instances why we were being pushed, after we gave sensible answers to it."* For the unsuccessful projects, a view is also shared on the risk of future costs for the project. One project argued that if DESNZ pushed harder they could create a situation where projects might win a contract on price but then cannot get the investment. It should be noted here though that feedback and **the perception from DESNZ officials focusses on the cost justification engagement being an "opportunity for projects to explain and justify their costs – some way further than other competitions, to explain the rationale, defend them, and provide more context. Moreover, it provided further information on the margins in the budget in order to be able to push project costs down"**.

**The Indicative Offer is different to what was expected by some projects when shared with them.** For one successful project, the Offer was quite different in their view to where they were at the time and that after receiving Offer, they had one meeting with DESNZ to try and justify why the costs were at a certain level and then had to submit a BaFO, with only one iteration and limited communication in between. It could be noted here that calling the Offer 'indicative' may be thought to imply that there can be ranges rather than a specific number. Another successful project highlights that the values and assumptions (i.e., MW of hydrogen in its high heating value basis) used by DESNZ to drive the Indicative Offer were not always completely clear, and that expanding on these assumptions would have been helpful for them. For unsuccessful projects, one highlights that they were given a low Offer and then expected to counter with something different. In this instance, they were not certain whether this would be their last chance in relation to the Offer or if there would be further discussion opportunity on the figures (this project also notes the collaboration/discussion opportunity during the due diligence stage was greater in their view than during the negotiations). From the perspective of HMG officials though, the sharing of the Indicative Offer was seen as a challenge to make bespoke, so instead they took an approach with the expectation that it would change. This may have created an issue though where projects may have disregarded the Offer value completely because it was too low, and not all that helpful as an indicative figure for discussion – it did serve to 'jumpstart' engagement from the projects though.

The bilateral negotiations are seen by successful projects with a mixed view, with some of the **projects expressing the view that they expected more opportunity to negotiate**. One of the projects notes that they did not always get responses to the issues that they raised, and that this made the negotiations difficult for them. They also perceived a misalignment between the current status of the projects and with DESNZ expectations. Another project adds that the negotiations meetings prioritised cost and that other aspects of the project, such as deliverability, also need to be a focus in the meetings. Three successful projects share the view that they would benefit from more communication with DESNZ at this stage, emphasising a particular need for clarity regarding the factors driving DESNZ decisions. The bilateral negotiations are seen as being *"more useful"* as compared to the Indicative Offer, but a clearer understanding for the desired outcome internally amongst HMG would lead to more constructive bilateral negotiations with projects. Furthermore, more clarity on the points that were up for bilateral negotiation and not (such as costs) would be more productive, as it would avoid the conversation being pulled away from the objectives of the bilateral negotiation.

For both successful and unsuccessful projects, the **BaFO template is generally well received**. The template is seen as straightforward and able to facilitate the process according to most of the projects. Some of the successful projects note however that more definition is needed on where numbers are coming from and about what goes into which box (one project describes that they had to take a 'best guess' at whether to enter real 2023 pre-tax prices or prices aligned with LCHA and 2021 prices). The Weighted Average Cost of Capital (WACC) box was also not completely clear, with one project describing that they were uncertain about the expected method for calculating the WACC and expressed a desire for additional guidance, especially regarding how to split their costs and allocate to each box in the template. There is also a view that the template could be improved by having more consideration of project change over time (e.g., change in customer volumes could be included in the template). DESNZ made decisions on the Strike Price based on the project under consideration, but this was presenting the project as static over 15 years, which was a simplification according to one project. There were also some delays with the final BaFO template according to one of the unsuccessful projects, who indicate they were challenged on how they calculated their IRR by DESNZ and then asked consultants to commission reports on the IRR (at first, they could use a model of their choosing but then 4 weeks later they received a template from DESNZ). There is also an issue noted with some of the units used in the template (e.g., MWhs and kg) which were different in the template from the LCHA and perhaps not always being the most appropriate unit that could be used.

#### 5.4 Effectiveness of Negotiations process

The **design of the negotiation meetings (cost justification engagement and bilateral negotiations) supports the effectiveness of the negotiations process**, whereby the meetings facilitated the process for HMG officials and the final outcome for each project. The templates completed by the projects are found to provide officials with valuable information and the associated discussions are seen as being of a constructive nature and towards understanding the reasoning behind the design of the projects.

However, the negotiations process with the projects had to respond to the projects changing over time, with operational decisions (e.g., analytical tools needed for analysis, type of information DESNZ prepared for negotiations leadership meeting, etc) being made based on the number/size of projects left in the process. Some of the **projects changed considerably during their execution and the negotiations process could see a benefit from tracking these changes more accurately** (HMG officials note the negotiations process would benefit from outlining the processes to follow if the negotiations are 'stuck' or not going as well as intended). In addition, while some of the main enhancements seen for the negotiations process are related to governance, the process for obtaining a mandate from HMT and for outlining the sequencing of communication with projects for future allocation rounds such as HAR2 would be beneficial to clarify and define further.

The effectiveness of the **negotiations process has also been supported by the templates completed by the projects (i.e., BaFO)** as these are seen to provide officials with important information and timely detail on the project. Three successful projects report that the BaFO template had a clear structure with one noting that this helped them to understand what the Final Offer consisted of. Another project also highlights that it was helpful to know there were four dimensions to the final strike price, and that they therefore were aware of the four areas that were up for discussion and dialogue. It should also be noted that one team member from a successful project had a particular financial background, which they thought helped them to understand the BaFO template, but without this prior knowledge, they might have found the process more difficult.

A number of challenges are identified from the point of view of projects that impact on the effectiveness of the negotiations process. For a number of the successful projects, and as indicated in previous sections of this report, it is **not clear on how much scope there is to really negotiate on the agreements**. The **need to manage expectations that applicants will not be able to 'negotiate' in the sense of what they would normally see as a negotiation** is also highlighted by several unsuccessful projects. This would set the tone for projects to know what they are getting into because internally, particularly in big organisations, there is a need to cast up the chain of seniority if there is going to be a negotiation and applicants will get the opportunity to talk with HMG.

There may be a **potential for projects to take on too great a degree of risk to be successful in the negotiations**, rather than building up something that they think is deliverable, *"if a very hard line is being taken from the government on the negotiation phase, it might lead to bidders taking gambles and putting optimistic numbers in that they hope they can get to, but may not be able to, and that could lead to projects falling down after they've been awarded."* An unfair benchmark was also created according to one of the projects, and as for each of the four elements of the strike price, the lowest was selected from across all bids, which is described as *"cherry picking"* from all the bids. This then led to an unrealistic benchmark and as all projects have different risk profiles, measuring projects against one another by just the precise strike price could miss the wider value and profile of the individual projects. A suggestion to improve this was put forward, whereby the Indicative Offer could be specifically related to a project's bid, rather than having a generic 'best of all bids'. This could initiate a negotiation based on the fundamentals of each project's bid.

Following the announcement of the successful projects, there has been a **recognition and interest in the projects and as they were made public**. Two of the projects indicate they have experienced considerable interest from offtakers and potential lending partners. They had previously identified offtakers prior to agreeing a BaFO with HMG, however, they were going to utilise the lenders to ask for a lower strike price in the next round.

## 5.5 Lessons for future allocation rounds

From the perspective of the projects, a range of different areas are identified that are seen to have worked reasonably well for them during the negotiations stage of HAR1. This includes the clarity of the templates and the overall process in terms of information flows. A good general level of communication and responsiveness is also highlighted, and projects note that DESNZ were very quick to respond to questions.

There are also areas though where scope for improvements are identified by the projects. This includes a need for more considerations of timelines and consistency in how projects will be assessed and negotiated with throughout the course of the negotiations process. For example, with more clarity and discussion on the Indicative Offer and on the deliverability, points mentioned in the previous sections, as well as being more alive to how projects change during their execution and the negotiations process. A more open dialogue with HMG during the negotiations on key factors that influence the strike price (e.g., macro factors, supply chain issues, electricity market issues) could mean that solutions are found quicker. The timelines could be reduced in future allocation rounds if processes can be run in a more efficient way following learnings from HAR1 (one of the successful projects notes they can already see learnings are materialising in HAR2, which is making the processes *"better and more efficient"*).

A key expectation of HAR1 was for the department to drive down costs and for projects to achieve value-for-money. This learning of projects needing more clarity on this process has



been actioned for HAR2 as having more clarity will allow for more effective negotiations to be run, which in turn provides the department with opportunities to drive down costs.

From the perspective of DESNZ, officials highlight that in future, more consideration should be put into the type and level of information provided to projects in advance (e.g., publishing templates in advance, enhanced view of how the negotiations stage and its processes/timeline will look). Moreover, it was argued that a clearer forecast for the process and having more realistic timelines both internally and externally as well as a clearer mandate from HMT on how they operate and how the final decision is made would be of benefit. Another key lesson relates to governance as the current structure is seen to be better suited to large projects with established technologies and not well adapted to projects that are newer technologies where things are less clear and changing in flight. For example, exact numbers aren't always available because they are only estimates.

## 6 Conclusions and Recommendations

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This section sets out the main conclusions from the process evaluation of the post-shortlisting stages of HAR1 and recommendations for future allocation rounds.

There is a broad and overarching recognition of the FOAK nature of the first allocation round from both the successful and unsuccessful projects, HMG officials as well as the technical advisors. With some of the detail of the design and delivery within the RFI, due diligence, and negotiations stages being 'fine-tuned' during the processes and implementation of the stages.

Key findings and insight developed in the preceding sections are set out below for processes within and across the Request for Information (RFI) stage, initial due diligence, and the negotiations, alongside continued due diligence. Recommendations from both the interviewees and Technopolis have been made for HAR2 and future rounds.

### 6.1 Request for Information (RFI) stage

The RFI stage was structured to gather information for the due diligence stage and to inform the cost analysis. It was based on the information required for the technical and financial due diligence. It included two components: the RFI form (which includes the text-based answers from each shortlisted project) and the data template.

While the RFI stage was broadly seen to be manageable with appropriate communications and timelines for both the successful and unsuccessful projects, specific challenges can be highlighted which include a limited level of interaction with HMG officials and tight turnarounds for clarification questions in some instances. The clarification processes could have been made more efficient if a more standardised and open clarification channel was available for the projects.

Projects did find though that HMG officials were accommodating with timescales and flexible if a project said they could only provide something within a certain amount of time. They also highlight that the SharePoint portal worked well.

The data templates used during the RFI stage, and their definition and structure are seen overall to be comprehensive and clear for those engaged with them. The RFI guidance is also seen to be helpful, for instance, on the scoring criteria. Projects also generally indicate that they understood how the RFI data was used (for example, there is a clear breakdown by section on

deliverability and additionality; and that it was useful to know how much additionality and other factors were valued so they were able to dedicate proportionate time and effort onto these sections).

A repetition of information within the data annex, where some questions were being asked in different ways in different parts of the template, is highlighted though by the projects as an area that could be improved and made more efficient. There were also difficulties experienced due to changes made in the templates when projects were actively developing their submissions and broader project activities (for example, when data templates were reissued, changes were not always flagged in the new versions).

The diversity in the nature/stage of the projects also meant that financial risks could be managed differently and therefore, costs could vary considerably, making the assessment process more complex. Some projects also note HMG expectations of the project maturity/stage and what projects saw as feasible at the RFI stage was not always in alignment. This created a degree of deliverability confidence challenge for projects and resulted in tensions between the need to balance confidence that applicants can deliver projects to time and where it could have helped to have more support from HMG on certain engagements.

Based on the insight outlined above and findings set out in the RFI chapter, the following recommendations are made for HAR2 and future allocation rounds.

*Table 5. Recommendations – Request for Information (RFI) processes*

<b>Recommendations – Request for Information (RFI)</b>
<ul style="list-style-type: none"><li>• <b>Enhanced programme/stakeholder management processes and more definition/information sharing with projects would help provide more consistency and clarity across the RFI stage.</b></li><li>• <b>Informing projects in advance of the type of RFI-based information required would further facilitate the process.</b></li><li>• <b>Improvements could be made to the types of tools used to handle data and additional testing of templates before they are provided to projects would support a more effective and efficient process.</b></li></ul>

## 6.2 Due Diligence stage

The due diligence stage which ran between May 2023 and October 2023 is considered as two phases: 1) an initial (and intensive) due diligence, running from May 2023 to August 2023; and, 2) the continued due diligence, running alongside the negotiations from August 2023 to October 2023.<sup>22</sup>

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<sup>22</sup> A 'negotiations project list' of successful projects from the initial due diligence phase was published in August 2023. This officially indicated the projects that continued through to the negotiations stage (negotiations project list). Due diligence continued throughout the negotiations phase, thus running through to October 2023.



The overall length of the due diligence period is seen to be appropriate, both by HMG officials and the projects. Delays<sup>23</sup> in the timelines were not seen as a significant issue and attributed to the FOAK nature of the allocation round. While the continued due diligence phase and the negotiations stage overlapped (creating some uncertainty for projects, e.g., clarity of beginning of negotiations, and state of project maturity expectations), HMG officials highlight the integration of these two parts of the process as important to the ultimate success of HAR1 and note that it worked relatively well. With its novelty, the flexibility and lack of clear delineation between the due diligence and negotiations stages can be viewed as facilitating the overall process.

While both the successful and unsuccessful projects think that the due diligence process was fair, most projects indicate they were not completely clear about the details of the expected process during due diligence (for example, more definition upfront would help support their planning). The general level of communications during due diligence are seen as clear, timely, and helpful though by the projects and they appreciated being able to have meetings with DESNZ (although some projects note the due diligence stage could benefit from more tailored engagement steps/meetings between HMG officials and the projects).

Most projects state that the due diligence criteria and information required was mainly clear and reasonable, although some did not fully understand how the information, and how their project, was going to be assessed. For example, the process and derived information from the benchmarking exercise was not shared with projects. Further transparency on this process would have been helpful, given the nascency of the market.

The overall effectiveness of the due diligence stage was in no small part dependent on the RFI information provided, and while most of the RFI information provided was sufficient and provided a good view of the updated information of the projects and their status, the initial due diligence phase soon after the RFI returns, coupled with a less transparent view of HMG prioritisation in this phase, presented some challenges to the projects. Most projects feel that the initial due diligence phase came too quickly after the RFI responses. For example, the first batch of CQs that came up as part of the due diligence immediately post-RFI were seen by some projects as repetitive to the RFI questions. HMG officials and the technical/commercial advisors further note here that the due diligence could have been more proportionate to the nascency and maturity of the projects and market and as some projects had provided a sum of information at the RFI stage just a few months prior, there was little time for projects to progress from this information by the time the due diligence questions commenced.

A notable challenge for some projects (i.e., two of the successful projects) was escalation of pricing, whereby specific supply chain challenges were seen with respect to timing. They were asked to submit data and keep the prices valid but when the back-end dates moved, they reported having to go back to the supply chain and revalidate the costs. It would have been helpful if this process could have been quicker and with bi-lateral discussion with DESNZ.

Based on the insight outlined above and findings set out in the due diligence chapter, the following recommendations are made for HAR2 and future allocation rounds.

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<sup>23</sup> Due to adjustments and adaptation of the due diligence process and level of project information needed.

Table 6. Recommendations – Due Diligence processes

### Recommendations – Due Diligence

- **More bilateral/tailored engagement steps with the projects** (e.g., meetings in smaller groups (rather than larger groups with senior HMG officials) tailored to the earlier and later stages of the due diligence/overlap with the negotiations.
- **More clarity/communication around how projects will be judged** to facilitate the process for project applicants.
- **Further clarity of timeline and process** for projects to better resource their applications and use time more effectively.
- **Further definition on how submitted information is weighted** to support projects to more effectively respond with their submissions and identify areas for improvement and strengths.
- **Possibility to decrease due diligence time frame** in future allocation rounds, based on process learnings in HAR1.
- **Additional targeted HMG discussions with projects (in relation to their supply chains, feedstock)** during the due diligence may further support alignment between the projects and DESNZ (e.g., on benchmarking), as well as help enable more effective and efficient discussions between the projects, and their supply chains.
- **Instances where projects are an ‘information taker’ in the due diligence (e.g. DNO price/costs) could be taken into account more as part of the flow of information between the projects and DESNZ.**
- **Earlier guidance to technical assessors** on level of information required for reporting to DESNZ, to allow better planning and avoid duplication and inefficiencies.

### 6.3 Negotiations stage

The negotiations stage was structured and approached with an overall aim to ensure that only deliverable projects that represent value for money are awarded contracts/LCHAs. It involved HMG officials and consisted of two key components, the development and agreement of a strike price for each project, and the submission and acceptance of each project's BaFO for contracting.

A broad perception is seen among both the successful and unsuccessful projects that the negotiations stage has been a fair process. Although, while some projects indicate it has been transparent, it is not seen as completely transparent by all projects. There is also a perception among projects that the timing and length of the negotiations stage was too constrained and that the experience of the (continued) due diligence and negotiations stage was more parallel and less discrete than expected or communicated.

Most projects describe a need for more communication points to be designed into the negotiations process as there was a rather low level of interaction and 'negotiation' in their view. The start point of the negotiations process can be highlighted here in terms of it being more clearly identifiable to projects. In some instances, projects found the lack of bilateral

discussions created some difficulties in identifying/understanding whether they were in the negotiations stage.

Clarity on the Indicative Offer is specifically noted by projects. For example, one successful project thought there was a lack of discussion and clarity on what they were going to receive and what it would mean for the project as well as a justification on how it was derived. The potential for projects to take on too great a degree of risk to be successful in the negotiations, rather than building up something that they think is deliverable should also be noted here. The experience of the cost justification engagement varied for projects, with a perception for some that the justification of costs were pushed for, without a full explanation of the need. It should also be noted here though that for HMG officials, the cost justification engagement is an opportunity for projects to explain and justify their costs and to explain the rationale, defend them, and provide more context.

For both successful and unsuccessful projects, the BaFO template is seen to have worked well and facilitated the process (with perhaps some more definition needed in some instances on where the numbers are coming from and about what goes into which box).

There is a view though that not enough consideration of project change over time is provided for (e.g., change in customer volumes is not recognised in the template, and presenting a project as static over 15 years may be an oversimplification). Some projects may change considerably during their execution and the negotiations process could see a benefit from tracking these changes more accurately.

It is also notable that following the announcement of the successful projects, there has been a subsequent level of recognition and interest in the projects as they were made public (for example, two projects have indicated they have experienced an interest from offtakers and potential lending partners).

Based on the insight outlined above and findings provided in the negotiations chapter, the following recommendations are made for HAR2 and future allocation rounds.

*Table 7. Recommendations – Negotiations processes*

### Recommendations – Negotiations

- **Further consideration of timelines and additional communication points** as part of the negotiations process would be helpful for projects (for example, start point of negotiations process could be made more clearly identifiable to projects, and a timeline/forward plan included with a longer time horizon, where possible).
- **More detail on how projects will be assessed and negotiated with** throughout the course of the negotiations process to give more clarity to projects and manage their expectations, including clarity on the points that are up for bilateral negotiation.
- **Provide additional clarity and discussion on the Indicative Offer** and its basis and on project deliverability to further facilitate the negotiations process.
- **A more open dialogue on key factors that influence the strike price** (e.g., macro factors, supply chain issues, electricity market issues) could mean that solutions are found quicker.

- **Earlier sharing of information and templates and enhanced definition in the BaFO template** (for example, publishing templates in advance, further detail on where numbers are coming from and about what goes into which box).
- **Additional consideration of project change over time** (e.g., change in customer volumes is not recognised in the template, and presenting a project as static over 15 years may be an oversimplification).

## Appendix A Topic Guides

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### A.1. Interview Topic Guide – DESNZ HAR1 officials

#### HAR1 Process Evaluation Topic Guide:

##### DESNZ

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<b>Interviewee names</b>	
<b>Role(s) in HAR1</b>	
<b>Interviewer</b>	
<b>Interview date/time</b>	

#### Instructions for interviewers

This meeting has been set up because of the interviewees' involvement in HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round.

The selected interviewees for this meeting have had a design/delivery role in HAR1 at the Department for Energy Security and Net Zero (DESNZ).

Prior to each meeting, familiarise yourself with the HAR1 overview detail below, which includes the process evaluation's scope and planning. This should also include briefly reviewing the HAR1 process map which was developed by Technopolis as part of the HAR1 initial process evaluation during 2023.

The aim of this meeting will be to gather the views of the interviewees on:

- the design and delivery of the request for information, due diligence and negotiation stages of HAR1.
- aspects that were more/less successful and why.
- improvements / lessons learned that could be implemented in future allocation rounds.

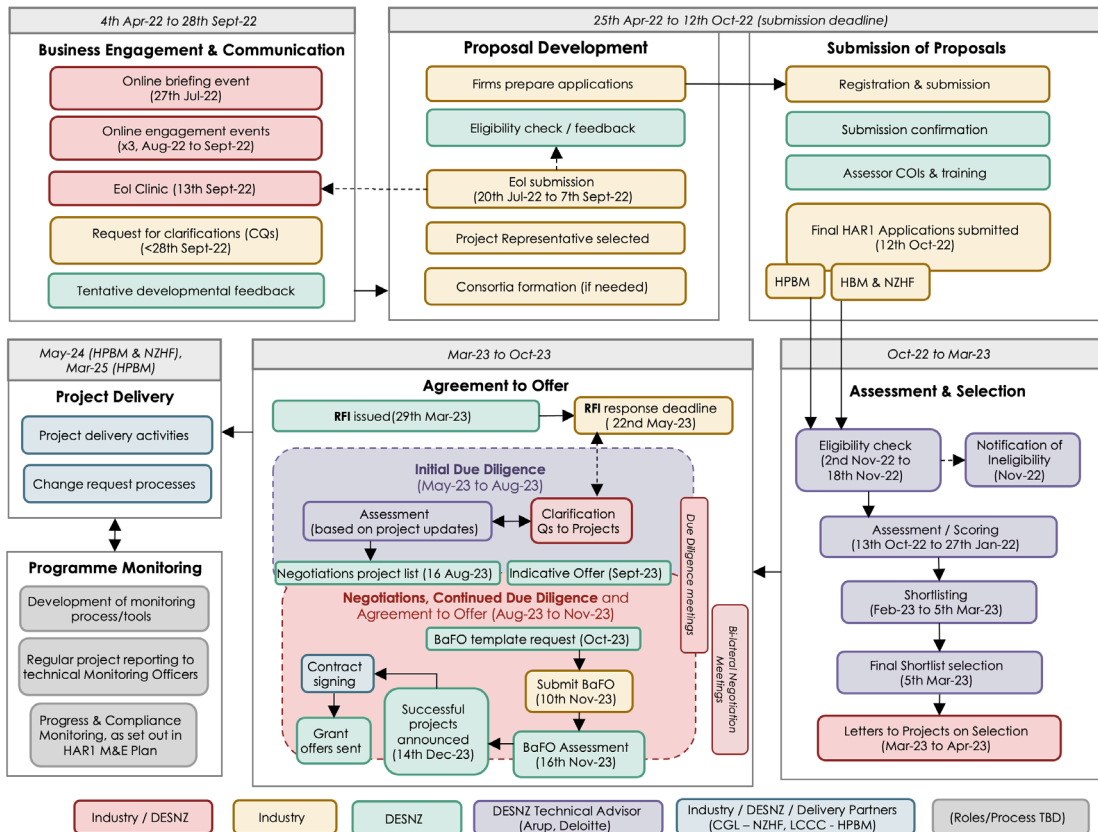
**Overview of HAR1 process evaluation** (background for the interviewer and may be shared at appropriate points and within the limitations of time available with the interviewees)

See more detailed background on DESNZ electrolytic hydrogen support in Appendix.

- HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round – ran from July 2022 to December 2023.
- 20 electrolytic hydrogen projects were shortlisted in March 2023 (with 17 project developers). A list of 11 successful electrolytic projects was then announced to

deliver 125MW, with HBM revenue support and capital expenditure support through the NZHF.

- Following from the HAR1 initial process evaluation that was delivered during Q1/Q2 2023 (which looked at all HAR1 stages up to shortlisting), a process evaluation will now be undertaken on the later stages of HAR1 (see process map below and in appendix).



- As highlighted above in the process map, this HAR1 process evaluation will cover the application process from announcement of the project shortlist in March 2023 onwards – of HAR1 and its offering joint Hydrogen Business Model and NZHF support.
- More specifically, it will gather feedback from HMG officials, the technical & commercial advisors, and the successful/unsuccessful project developers on the: request for information, due diligence, and negotiation stages of the application process.
- The HAR1 process evaluation will identify learnings and lessons to help inform the design, development, and delivery of future allocation rounds. It will aim (to extent possible) to inform the HAR2 request for information, due diligence, and negotiation stages through an early feedback session during mid-April (w/c 15th Apr).
- ~25 in-depth interviews will be undertaken during the coming weeks as part of this process evaluation, with the following two stakeholder groups:

- Developers of shortlisted projects (up to 17 interviews). To provide insights into their experiences with HAR1 and its request for information, due diligence, and negotiation stages.
- HMG officials and technical/commercial advisors (~8 interviews). To provide insight and lessons learned from their experiences of the design and delivery of HAR1 through its request for information, due diligence, and negotiation processes.
- The insight provided will be used to develop a final report (June 2024), containing detailed findings and recommendations to support further improvements (where possible and necessary) for the implementation of future hydrogen support allocation rounds for project developers, HMG officials, and any delivery partners.

### **Introduction & Consent**

Thank you for agreeing to take part in this meeting.

Technopolis Ltd has been commissioned by DESNZ to undertake a process evaluation on the later stages of HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round.

*Note: An initial process evaluation delivered during 2023 looked at all HAR1 application stages up to shortlisting (which they may have participated in).*

This process evaluation will cover the application process from announcement of the project shortlist in March 2023 onwards – of HAR1 and its offering joint HBM and NZHF support.

The main objectives of this process evaluation are to gain an understanding of and determine lessons learned from the experiences of:

- Firms shortlisted as part of HAR1 and having gone through the subsequent request for information, due diligence and negotiation phases (this will aim to include the 20 shortlisted projects with the 11 successful projects and unsuccessful projects).
- HMG officials and technical/commercial advisors in delivering the later stages of HAR1.
- It will also identify and provide any recommendations for improvements from HAR1's later stages and assess any short-term unintended consequences (positive or negative).

~25 in-depth interviews will be undertaken during the coming weeks as part of this process evaluation, with the following two stakeholder groups:

- Developers of shortlisted projects (up to 17 interviews). To provide insights into their experiences with HAR1 and its request for information, due diligence, and negotiation stages.
- HMG officials and technical/commercial advisors (~8 interviews). To provide insight and lessons learned from their experiences of the design and delivery of HAR1 through its request for information, due diligence, and negotiation processes.

The insight provided will be used to develop a final report (June 2024), containing detailed findings and recommendations to support further improvements (where possible and necessary) for the implementation of future hydrogen support allocation rounds for project developers, HMG officials, and any delivery partners.

This interview should run for around 45 minutes to 1 hour.

Your participation in this interview is voluntary and you can change your mind at any time. The information that you provide will be treated in confidence by the evaluation team.

**We would like to use your inputs and request your permission for the following:**

1. To use the feedback you provide, together with any additional information you choose to disclose (“Information”) for the evaluation study.
2. We will provide **an anonymised version of this information including transcripts and** any analysis we carry out as part of the evaluation study with DESNZ, for its own internal purposes only.
3. DESNZ may publish **aggregate, unattributed results** of the analysis of information from these interviews.

We would like to record the discussion for analysis purposes, which will be used to help us accurately collect findings for the research. Note The recordings/transcripts will be securely stored and retained by us and destroyed after the completion of this evaluation study.

**Are you happy for us to proceed?**

**[Recording]**

**Introduction**

0. Please could you tell me your name, role, and responsibilities in relation to your involvement with HAR1?
  - a. What stages of HAR1 have you been involved in?
  - b. Have you been involved with any previous (or ongoing) hydrogen-focussed programmes / funding schemes?

**HAR1 Design and Governance (Shortlisting to Contract Signing)**

1. Do you think the timing and length of the following stages has been appropriate and sufficient (and given HAR1's objectives):
  - a. (a) RFI stage?
  - b. (b) due diligence stage?
  - c. (c) negotiation stage?

*HAR1 focuses on supporting early electrolytic hydrogen production projects that will provide for initial growth and demand in the hydrogen economy.*

2. Have you encountered any particular challenges or issues during the delivery of the Shortlisting to Contract Signing stage? If so, could these have been mitigated for?

3. Do you know of any changes that have been made post-launch to the following:



- a. (a) RFI stage?
- b. (b) due diligence stage?
- c. (c) negotiation stage?

*And if so, probe on how well these have been communicated and implemented for each stage*

4. To what extent do you think HAR1's overall Shortlisting to Negotiation stage has complemented other interventions by similar policies/funds?

*Probe on any potential overlaps, and any wider leveraging effects.*

### **HAR1 Support and Handling**

#### Request For Information (RFI)

5. Overall, how well do you think the RFI support and handling operated/progressed?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved.*

6. To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the RFI stage?

- a. (a) Do you think the questions asked in the RFI stage were communicated to the developers effectively?
- b. (b) Was the data template / guidance clear [for the developers]? Did this allow shortlisted applicants to provide all the information they wanted to or could provide for the RFI stage?

*Probe on level of detail and timings. And on clarity of the supporting documentation*

7. Do you think the clarification process during the RFI stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate you know of any changes that have been made post-launch to the following*

8. Overall, how effective do you think the delivery support has been during the RFI stage?

Due Diligence

9. Overall, how well do you think the due diligence support and handling operated/progressed?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved.*

10. To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the due diligence stage?

- (a) Do you think the criteria used during the due diligence stage were communicated to the developers effectively?
- (b) Was the data template / guidance clear [for HMG officials / technical/commercial advisors]?

*Probe on level of detail and timings. And on clarity of the supporting documentation [for HMG officials / technical/commercial advisors]*

11. Do you think the clarification process during the due diligence stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate.*

12. Overall, how effective do you think the delivery support has been during the due diligence stage?

*Probe on what worked well, what could have been improved.*

Negotiations

13. Overall, how well do you think the negotiations support and handling operated/progressed? And more specifically:
- a. (a) the cost justification engagement?
  - b. (b) the sharing of the Indicative Offer?
  - c. (c) the bilateral negotiations?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved.*

14. Do you think the Best and Final Offer (BaFO) templates were clearly defined and structured?

*Probe on any particular areas of information/detail that was unable to be included.*

15. Do you think the clarification process during the negotiations stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate*

16. Overall, how effective do you think the delivery support has been during the negotiations stage?

*Probe on what worked well, what could have been improved.*

## **HAR1 Process**

### RFI and Due Diligence

17. Are there any areas of the HAR1 due diligence process within DESNZ where you think enhancements could be made? Do you think the due diligence processes worked sufficiently well alongside the negotiation processes?

*Probe on extent to which the due diligence governance was effective.*

18. Do you think the level and extent of the delivery partner (incl. technical/commercial advisor) support was appropriate for the due diligence needs during HAR1?

*Probe on how the division of labour operated. And on areas that could be improved.*

19. To what extent did the RFI template design facilitate the due diligence process? Do you think the RFI process provided a sufficient degree of evidence for the assessors?

*Probe on what worked well/what could be improved. And on how (well) the incorporation of supplementary documentation by shortlisted projects worked.*

20. Did you identify any particular challenges during the RFI process?

*Probe on if/how these could be avoided in the future.*

### Negotiations

21. Are there any areas of the HAR1 negotiations process within DESNZ where you think enhancements could be made?

*Probe on extent to which the negotiations governance was effective.*

22. Do you think the level and extent of the delivery partner (incl. technical/commercial advisor) support was appropriate for the negotiations needs during HAR1?

*Probe on how the division of labour operated. And on areas that worked well/could be improved.*

23. To what extent did the design of the negotiation meetings (i.e., cost justification engagement and bilateral negotiations) facilitate the process and final outcome? Did the negotiation meetings allow the assessors to achieve what they were looking for?

*Probe on what worked well/what could be improved.*

24. To what extent did the design of the Best and Final Offer (BaFOs) template aid in the negotiations process?

*Probe on what worked well/what could be improved.*

25. Did you identify any particular challenges during the negotiations process?

*Probe on if/how these could be avoided in the future.*

26. How well do you think the VfM assessment operated/progressed? How well do you think the final selection process operated/progressed?

### Future Lessons

27. Overall, what lessons do you think can be drawn from the delivery of HAR1 from Shortlisting to Negotiations?

*Probe on:*

- a. *which areas have operated/progressed particularly well,*
- b. *which areas could be improved,*
- c. *if the delivery of HAR1 identified any necessary changes to the RFI, due diligence and negotiation activities/timings*

28. To what extent do you think the overall method of delivery has been the most appropriate and efficient?

*Probe on specific areas that could be reduced/streamlined for future, e.g., larger scale allocation rounds*

29. Do any hydrogen support programmes in other countries/regions have similar/comparable policy objectives? Could any learnings be identified from these?

30. What implications could the HAR1 process evaluation findings have for the future of the UK hydrogen economy?

31. Do you think any lessons from the HAR1 policy evaluation could be transferred to the delivery (and M&E) of other related UK policy programmes (e.g., CCUS)?

### Closing and Thank You

## A.2. Interview Topic Guide – HAR1 shortlisted applicants (Successful)

### HAR1 Process Evaluation Topic Guide:

#### Project developers (successful)

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<b>Interviewee name(s)</b>	
<b>Role in HAR1</b>	[name] Project developer (successful)
<b>Interviewer</b>	
<b>Interview date/time</b>	

#### Instructions for interviewers

This meeting has been set up because of the involvement of the interviewee(s) in HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round.

The selected interviewee(s) **represents one of the 11 successful electrolytic projects** that have been announced (see overview/background section below).

Prior to each meeting, familiarise yourself with the HAR1 overview detail below, which includes the process evaluation's scope and planning, and any relevant/available online project information (e.g., developer website). This should also include briefly reviewing the HAR1 process map which was developed by Technopolis as part of the HAR1 initial process evaluation during 2023.

The aim of this meeting will be to gather the views of the successful project-based interviewee(s) on:

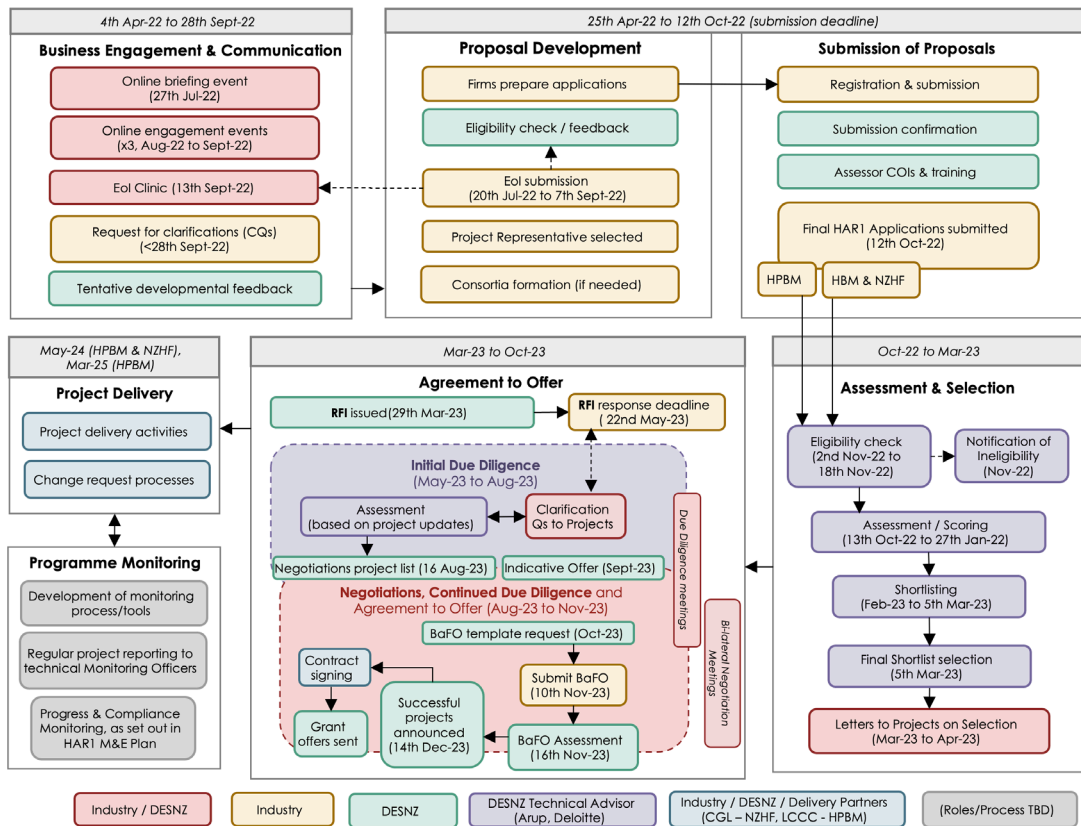
- their experience of the request for information, due diligence and negotiation processes, and design of the overall process.
- any challenges encountered.
- any improvements that could be made to similar processes in the future.

**Overview of HAR1 process evaluation** (background for the interviewer and may be shared at appropriate points and within the limitations of time available with the interviewees)

See more detailed background on DESNZ electrolytic hydrogen support in Appendix.

- HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round – ran from July 2022 to December 2023.
- 20 electrolytic hydrogen projects were shortlisted in March 2023 (with 17 project developers). A list of 11 successful electrolytic projects was then announced to deliver 125MW, with HBM revenue support and capital expenditure support through the NZHF.

- Following from the HAR1 initial process evaluation that was delivered during Q1/Q2 2023 (which looked at all HAR1 stages up to shortlisting), a process evaluation will now be undertaken on the later stages of HAR1 (see process map below and in appendix).



- As highlighted above in the process map, this HAR1 process evaluation will cover the application process from announcement of the project shortlist in March 2023 onwards – of HAR1 and its offering joint Hydrogen Business Model and NZHF support.
- More specifically, it will gather feedback from HMG officials, the technical & commercial advisors, and the successful/unsuccessful project developers on the: request for information, due diligence, and negotiation stages of the application process.
- The HAR1 process evaluation will identify learnings and lessons to help inform the design, development, and delivery of future allocation rounds. It will aim (to extent possible) to inform the HAR2 request for information, due diligence, and negotiation stages through an early feedback session during mid-April (w/c 15th Apr).
- ~25 in-depth interviews will be undertaken during the coming weeks as part of this process evaluation, with the following two stakeholder groups:
  - Developers of shortlisted projects (up to 17 interviews). To provide insights into their experiences with HAR1 and its request for information, due diligence, and negotiation stages.
  - HMG officials and technical/commercial advisors (~8 interviews). To provide insight and lessons learned from their experiences of the design and delivery of HAR1 through its request for information, due diligence, and negotiation processes.

- The insight provided will be used to develop a final report (June 2024), containing detailed findings and recommendations to support further improvements (where possible and necessary) for the implementation of future hydrogen support allocation rounds for project developers, HMG officials, and any delivery partners.

## **Introduction & Consent**

Thank you for agreeing to take part in this meeting.

Technopolis Ltd has been commissioned by DESNZ to undertake a process evaluation on the later stages of HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round.

*Note: An initial process evaluation delivered during 2023 looked at all HAR1 application stages up to shortlisting (which they may have participated in).*

This process evaluation will cover the application process from announcement of the project shortlist in March 2023 to onwards – of HAR1 and its offering joint HBM and NZHF support.

The main objectives of this process evaluation are to gain an understanding of and determine lessons learned from the experiences of:

- Firms shortlisted as part of HAR1 and having gone through the subsequent request for information, due diligence and negotiation phases of the process (this will aim to include the 20 shortlisted projects and the 11 successful projects).
- HMG officials and technical/commercial advisors in delivering the later stages of HAR1.
- It will also identify and provide any recommendations for improvements from HAR1's later stages and assess any short-term unintended consequences (positive or negative).

You have been selected for this interview, as one of the project applicants/participants in the first joint allocation round (HAR1) and as your experience of the process is important to understand and capture.

This interview should run for around 45 minutes to 1 hour.

Your participation in this interview is voluntary and you can change your mind at any time. The information that you provide will be treated in confidence by the evaluation team.

### **We would like to use your inputs and request your permission for the following:**

- To use the feedback you provide, together with any additional information you choose to disclose ("Information") for the evaluation study.
- We will provide **an anonymised version of this information including transcripts and** any analysis we carry out as part of the evaluation study with DESNZ, for its own internal purposes only.
- DESNZ expect to publish **aggregate, unattributed results** of the analysis of information from these interviews.

We would like to record the discussion for analysis purposes, which will be used to help us accurately collect findings for the research. Note The recordings/transcripts will be securely stored and retained by us and destroyed after the completion of this evaluation study.

### **Are you happy for us to proceed?**



**[Recording]**

**Introduction**

0. Please could you tell me your name, role, and responsibilities in relation to your involvement with HAR1?
  - a. What stages of HAR1 have you been involved in?
  - b. Have you been involved with any previous (or ongoing) hydrogen-focussed programmes / funding schemes?

**HAR1 Design and Governance (Shortlisting to Contract Signing)**

1. Do you think the timing and length of the following stages has been appropriate and sufficient (and given HAR1's objectives):

- (a) RFI stage?
- (b) due diligence stage?
- (c) negotiation stage?

*HAR1 focuses on supporting initial electrolytic hydrogen production projects which will support early growth and demand in the hydrogen economy*

2. Do you know of any changes that have been made post-launch to the following:

- (a) RFI stage?
- (b) due diligence stage?
- (c) negotiation stage?

And if so, probe on how well these have these been communicated and implemented for each stage

3. Do you think HAR1 has been a fair and transparent process for project developers following the Shortlisting? Have there been any instances where you think there may have been the potential for it not to be?

*Probe on RFI, due diligence, and negotiation stages*

## HARI Support and Handling

### Request For Information (RFI)

4. Overall, how well do you think the RFI support and handling operated/progressed?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved*

5. To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the RFI stage?

(a) Do you think the questions asked in the RFI stage were communicated to the developers effectively?

(b) Was the data template / guidance clear [for the developers]? Did this allow shortlisted applicants to provide all the information they wanted to or could provide for the RFI stage?

*Probe on level of detail and timings. And on clarity of the supporting documentation*

6. Do you think the clarification process during the RFI stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate*

7. Did you identify any particular challenges during the RFI process?

*Probe on if/how these could be avoided in the future*

8. To what extent do you as a shortlisted project understand what the RFI data is used for and why?

Due Diligence

9.To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the due diligence stage?

(a) Do you think the criteria used during the due diligence stage were communicated to the developers effectively?

*Probe on level of detail and timings.*

10.Do you think the clarification process during the due diligence stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate*

11.To what extent do you as a shortlisted project understand how the due diligence stage and its processes work?

Negotiations

12.Overall, how well do you think the negotiations support and handling operated/progressed? And more specifically:

(a) the cost justification engagement?

(b) the sharing of the Indicative Offer?

(c) the bilateral negotiations?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved*

13.To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the negotiations stage?

- (a) Is it clear what Indicative Offer refers to and what this will be used for?
- (b) Were the parameters of the negotiations clearly defined/described and did you feel that discussion(s) reflected this?
- (c) Have any decisions been made post launch affecting the design of the negotiation process and if yes, how timely and successfully have those decisions been communicated and implemented?

*Probe on level of detail and timings.*

14.Do you think the Best and Final Offer (BaFO) templates were clearly defined and structured?

*Probe on any particular areas of information/detail that was unable to be included*

15.To what extent did the design of the Best and Final Offer (BaFOs) template aid in the negotiations process?

*Probe on what worked well/what could be improved*

16.Do you think the clarification process during the negotiations stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate*

17.To what extent do you as a shortlisted project understand how the negotiations stage and its processes work?

18.Did you identify any particular challenges during the negotiations process?

*Probe on if/how these could be avoided in the future*

19. To what extent have your expectations of being a successful project lined up with what you experienced in the post-announcement period?

**Future Lessons**

20. Overall, what lessons do you think can be drawn from the delivery of HAR1 from Shortlisting to Negotiations?

*Probe on which areas have operated/progressed particularly well. And on which areas could be improved. And on if the delivery of HAR1 identified any necessary changes to the RFI, due diligence and negotiation activities/timings.*

**Closing and Thank You**

21. Do you have any additional comments that have not been addressed above?

### A.3. Interview Topic Guide – HAR1 shortlisted applicants (Unsuccessful)

#### HAR1 Process Evaluation Topic Guide:

##### Project developers (unsuccessful)

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<b>Interviewee name(s)</b>	
<b>Role in HAR1</b>	[name] Project developer (unsuccessful)
<b>Interviewer</b>	
<b>Interview date/time</b>	

#### Instructions for interviewers

This meeting has been set up because of the involvement of the interviewee(s) in HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round.

The selected interviewee(s) represents one of the shortlisted electrolytic projects which was not successful (see overview/background section below).

Prior to each meeting, familiarise yourself with the HAR1 overview detail below, which includes the process evaluation's scope and planning, and any relevant/available online project information (e.g., developer website). This should also include briefly reviewing the HAR1 process map which was developed by Technopolis as part of the HAR1 initial process evaluation during 2023.

The aim of this meeting will be to gather the views of the unsuccessful project-based interviewee(s) on:

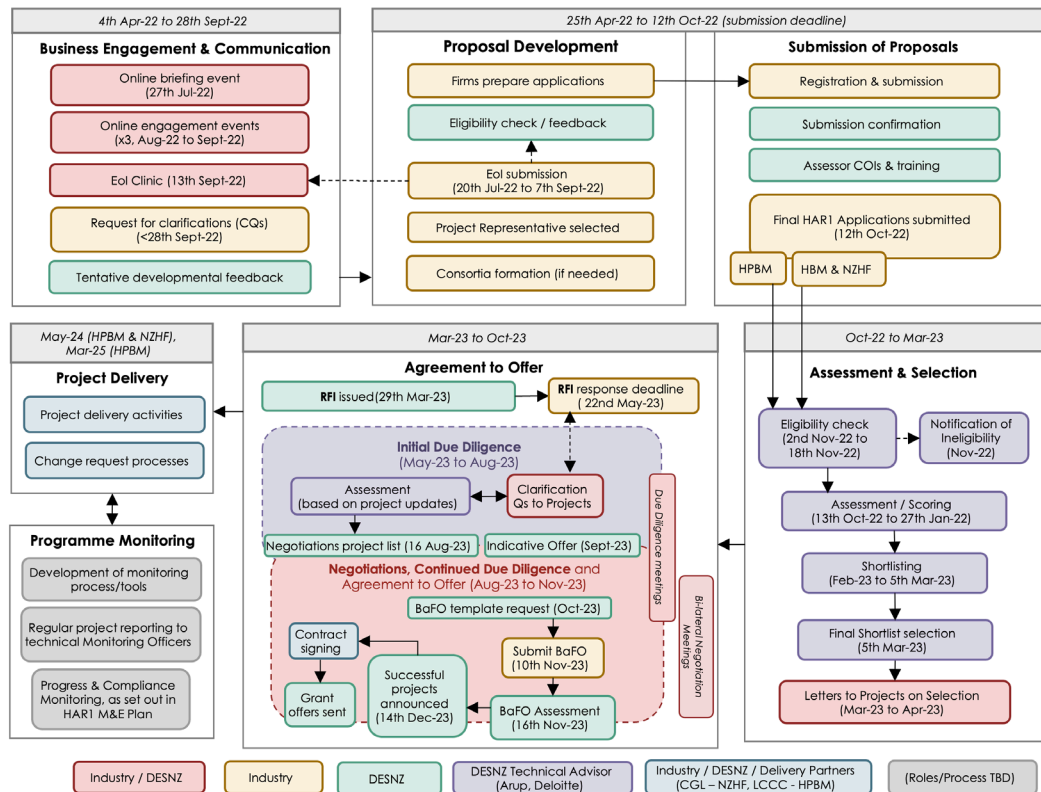
- their experience of the request for information, due diligence and negotiation processes, and design of the overall process.
- any challenges encountered.
- any improvements that could be made to similar processes in the future.

**Overview of HAR1 process evaluation** (background for the interviewer and may be shared at appropriate points and within the limitations of time available with the interviewees)

See more detailed background on DESNZ electrolytic hydrogen support in Appendix.

- HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round – ran from July 2022 to December 2023.
- 20 electrolytic hydrogen projects were shortlisted in March 2023 (with 17 project developers). A list of 11 successful electrolytic projects was then announced to deliver 125MW, with HBM revenue support and capital expenditure support through the NZHF.

- Following from the HAR1 initial process evaluation that was delivered during Q1/Q2 2023 (which looked at all HAR1 stages up to shortlisting), a process evaluation will now be undertaken on the later stages of HAR1 (see process map below and in appendix).



- As highlighted above in the process map, this HAR1 process evaluation will cover the application process from announcement of the project shortlist in March 2023 onwards – of HAR1 and its offering joint Hydrogen Business Model and NZHF support.
- More specifically, it will gather feedback from HMG officials, the technical & commercial advisors, and the successful/unsuccessful project developers on the: request for information, due diligence, and negotiation stages of the application process.
- The HAR1 process evaluation will identify learnings and lessons to help inform the design, development, and delivery of future allocation rounds. It will aim (to extent possible) to inform the HAR2 request for information, due diligence, and negotiation stages through an early feedback session during mid-April (w/c 15th Apr).
- ~25 in-depth interviews will be undertaken during the coming weeks as part of this process evaluation, with the following two stakeholder groups:
  - Developers of shortlisted projects (up to 17 interviews). To provide insights into their experiences with HAR1 and its request for information, due diligence, and negotiation stages.
  - HMG officials and technical/commercial advisors (~8 interviews). To provide insight and lessons learned from their experiences of the design and delivery of HAR1 through its request for information, due diligence, and negotiation processes.
- The insight provided will be used to develop a final report (June 2024), containing detailed findings and recommendations to support further improvements (where



possible and necessary) for the implementation of future hydrogen support allocation rounds for project developers, HMG officials, and any delivery partners.

## **Introduction & Consent**

Thank you for agreeing to take part in this meeting.

Technopolis Ltd has been commissioned by DESNZ to undertake a process evaluation on the later stages of HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round.

*Note: An initial process evaluation delivered during 2023 looked at all HAR1 application stages up to shortlisting (which they may have participated in).*

This process evaluation will cover the application process from announcement of the project shortlist in March 2023 onwards – of HAR1 and its offering joint HBM and NZHF support.

The main objectives of this process evaluation are to gain an understanding of and determine lessons learned from the experiences of:

- Firms shortlisted as part of HAR1 and having gone through the subsequent request for information, due diligence and negotiation phases of the process (this will aim to include the 20 shortlisted projects and the 11 successful projects).
- HMG officials and technical and commercial advisors in delivering the later stages of HAR1.
- It will also identify and provide any recommendations for improvements from HAR1's later stages and assess any short-term unintended consequences (positive or negative).

You have been selected for this interview, as one of the project applicants/participants in the first joint allocation round (HAR1) and as your experience of the process is important to understand and capture.

This interview should run for around 45 minutes to 1 hour.

Your participation in this interview is voluntary and you can change your mind at any time. The information that you provide will be treated in confidence by the evaluation team.

### **We would like to use your inputs and request your permission for the following:**

- To use the feedback you provide, together with any additional information you choose to disclose ("Information") for the evaluation study.
- We will provide **an anonymised version of this information including transcripts and** any analysis we carry out as part of the evaluation study with DESNZ, for its own internal purposes only.
- DESNZ expect to publish **aggregate, unattributed results** of the analysis of information from these interviews.

We would like to record the discussion for analysis purposes, which will be used to help us accurately collect findings for the research. Note The recordings/transcripts will be securely stored and retained by us and destroyed after the completion of this evaluation study.

### **Are you happy for us to proceed?**

#### **[Recording]**

## Introduction

0. Please could you tell me your name, role, and responsibilities in relation to your involvement with HAR1?
  - a. What stages of HAR1 have you been involved in?
  - b. Have you been involved with any previous (or ongoing) hydrogen-focussed programmes / funding schemes?

## HAR1 Design and Governance (Shortlisting to Contract Signing)

1. Do you think the timing and length of the following stages has been appropriate and sufficient (and given HAR1's objectives):
  - (a) RFI stage?
  - (b) due diligence stage?
  - (c) negotiation stage?

2. Do you know of any changes that have been made post-launch to the following:
  - (a) RFI stage?
  - (b) due diligence stage?
  - (c) negotiation stage?And if so, probe on how well these have these been communicated and implemented for each stage

3. Do you think HAR1 has been a fair and transparent process for project developers following the Shortlisting?  
Have there been any instances where you think there may have been the potential for it not to be?  
*Probe on RFI, due diligence, and negotiation stages*

## HAR1 Support and Handling

### Request For Information (RFI)

4. Overall, how well do you think the RFI support and handling operated/progressed?  
*Probe on which elements were more or less challenging / burdensome.*  
*And on what worked well, what could have been improved*

5. To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the RFI stage?
- (a) Do you think the questions asked in the RFI stage were communicated to the developers effectively?
  - (b) Was the data template / guidance clear [for the developers]? Did this allow shortlisted applicants to provide all the information they wanted to or could provide for the RFI stage?

*Probe on level of detail and timings. And on clarity of the supporting documentation*

6. Do you think the clarification process during the RFI stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate*

7. Did you identify any particular challenges during the RFI process?

*Probe on if/how these could be avoided in the future*

8. To what extent do you, as a project that was shortlisted, understand what the RFI data is used for and why?

### **Due Diligence**

9. To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the due diligence stage?

- a. (a) Do you think the criteria used during the due diligence stage were communicated to the developers effectively?

*Probe on level of detail and timings.*

10. Do you think the clarification process during the due diligence stage was appropriate and timely?

Probe on ability to obtain clarifications. And if the timeframe was adequate

11. To what extent do you as a shortlisted project understand how the due diligence stage and its processes work?

### **Negotiations**

12. Overall, how well do you think the negotiations support and handling operated/progressed? And more specifically:

- (a) the cost justification engagement?
- (b) the sharing of the Indicative Offer?
- (c) the bilateral negotiations?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved*

13. To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the negotiations stage?

- (a) Is it clear what Indicative Offer refers to and what this will be used for?
- (b) Were the parameters of the negotiations clearly defined/described and did you feel that discussion(s) reflected this?
- (c) Have any decisions been made post launch affecting the design of the negotiation process and if yes, how timely and successfully have those decisions been communicated and implemented?

*Probe on level of detail and timings.*

14. Do you think the Best and Final Offer (BaFO) templates were clearly defined and structured?

*Probe on any particular areas of information/detail that was unable to be included*

15. To what extent did the design of the Best and Final Offer (BaFOs) template aid in the negotiations process?

*Probe on what worked well/what could be improved*

16. Do you think the clarification process during the negotiations stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate*

17. To what extent do you as a shortlisted project understand how the negotiations stage and its processes work?

18. Did you identify any particular challenges during the negotiations process?

*Probe on if/how could these could be avoided in the future*

### **Future Lessons**

19. Overall, what lessons do you think can be drawn from the delivery of HAR1 from Shortlisting to Negotiations?

*Probe on which areas have operated/progressed particularly well. And on which areas could be improved. And on if the delivery of HAR1 identified any necessary changes to the RFI, due diligence and negotiation activities/timings.*

### **Closing and Thank You**

20. Do you have any additional comments that have not been addressed above?

## A.4. Interview Topic Guide – Technical/Commercial Advisors

### HAR1 Process Evaluation Topic Guide:

#### Technical/Commercial Advisors

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<b>Interviewee name(s)</b>	
<b>Role(s)</b>	
<b>Interviewer</b>	
<b>Interview date/time</b>	

#### Instructions for interviewers

This meeting has been set up because of the involvement of the interviewee(s) in HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round.

The selected interviewee(s) has had an external technical/commercial advice/support role in HAR1 (**Arup has led the request for information stage of the HAR1 application process**).

Prior to each meeting, familiarise yourself with the HAR1 overview detail below, which includes the process evaluation's scope and planning. This should also include briefly reviewing the HAR1 process map which was developed by Technopolis as part of the HAR1 initial process evaluation during 2023.

The aim of this meeting will be to gather the views of the interviewee(s) on:

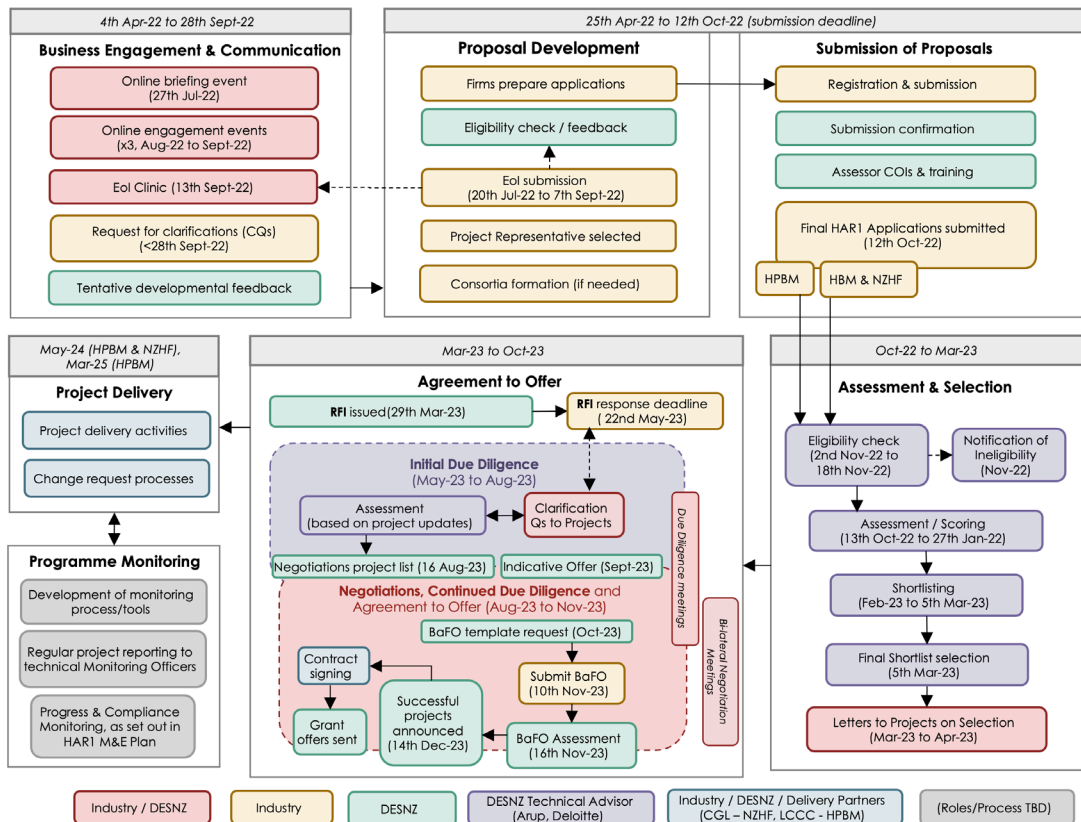
- the design and delivery of the request for information, due diligence, and negotiation stages of HAR1.
- aspects that were more/less successful, and why.
- improvements / lessons learned that could be implemented in future allocation rounds.

**Overview of HAR1 process evaluation** (background for the interviewer and may be shared at appropriate points and within the limitations of time available with the interviewees)

See more detailed background on DESNZ electrolytic hydrogen support in Appendix.

- HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round – ran from July 2022 to December 2023.
- 20 electrolytic hydrogen projects were shortlisted in March 2023 (with 17 project developers). A list of 11 successful electrolytic projects was then announced to deliver 125MW, with HBM revenue support and capital expenditure support through the NZHF.

- Following from the HAR1 initial process evaluation that was delivered during Q1/Q2 2023 (which looked at all HAR1 stages up to shortlisting), a process evaluation will now be undertaken on the later stages of HAR1 (see process map below and in appendix).



- As highlighted above in the process map, this HAR1 process evaluation will cover the application process from announcement of the project shortlist in March 2023 onwards – of HAR1 and its offering joint Hydrogen Business Model and NZHF support.
- More specifically, it will gather feedback from HMG officials, the technical & commercial advisors, and the successful/unsuccessful project developers on the: request for information, due diligence, and negotiation stages of the application process.
- The HAR1 process evaluation will identify learnings and lessons to help inform the design, development, and delivery of future allocation rounds. It will aim (to extent possible) to inform the HAR2 request for information, due diligence, and negotiation stages through an early feedback session during mid-April (w/c 15th Apr).
- ~25 in-depth interviews will be undertaken during the coming weeks as part of this process evaluation, with the following two stakeholder groups:
  - Developers of shortlisted projects (up to 17 interviews). To provide insights into their experiences with HAR1 and its request for information, due diligence, and negotiation stages.
  - HMG officials and technical/commercial advisors (~8 interviews). To provide insight and lessons learned from their experiences of the design and delivery of HAR1 through its request for information, due diligence, and negotiation processes.
- The insight provided will be used to develop a final report (June 2024), containing detailed findings and recommendations to support further improvements (where



possible and necessary) for the implementation of future hydrogen support allocation rounds for project developers, HMG officials, and any delivery partners.

## **Introduction & Consent**

Thank you for agreeing to take part in this meeting.

Technopolis Ltd has been commissioned by DESNZ to undertake a process evaluation on the later stages of HAR1 – the first joint Hydrogen Business Model (HBM) / Net Zero Hydrogen Fund (NZHF) Electrolytic Allocation Round.

*Note: An initial process evaluation delivered during 2023 looked at all HAR1 application stages up to shortlisting (which they may have participated in).*

This process evaluation will cover the application process from announcement of the project shortlist in March 2023 onwards – of HAR1 and its offering joint HBM and NZHF support.

The main objectives of this process evaluation are to gain an understanding of and determine lessons learned from the experiences of:

- Firms shortlisted as part of HAR1 and having gone through the subsequent request for information, due diligence and negotiation phases of the process (this will aim to include the 20 shortlisted projects and the 11 successful projects).
- HMG officials and technical/commercial advisors in delivering the later stages of HAR1.
- It will also identify and provide any recommendations for improvements from HAR1's later stages and assess any short-term unintended consequences (positive or negative).

This interview should run for around 45 minutes – 1 hour.

Your participation in this interview is voluntary and you can change your mind at any time. The information that you provide will be treated in confidence by the evaluation team.

### **We would like to use your inputs and request your permission for the following:**

- To use the feedback you provide, together with any additional information you choose to disclose ("Information") for the evaluation study.
- We will provide **an anonymised version of this information including transcripts and** any analysis we carry out as part of the evaluation study with DESNZ, for its own internal purposes only.
- DESNZ expect to publish **aggregate, unattributed results** of the analysis of information from these interviews.

We would like to record the discussion for analysis purposes, which will be used to help us accurately collect findings for the research. Note The recordings/transcripts will be securely stored and retained by us and destroyed after the completion of this evaluation study.

### **Are you happy for us to proceed?**

#### **[Recording]**

## Introduction

0. Please could you tell me your name, role, and responsibilities in relation to your involvement with HAR1?
  - a. What stages of HAR1 have you been involved in?
  - b. Have you been involved with any previous (or ongoing) hydrogen-focussed programmes / funding schemes?

## HAR1 Design and Governance (Shortlisting to Contract Signing)

1. Do you think the timing and length of the following stages has been appropriate and sufficient (and given HAR1's objectives):
  - a. RFI stage?
  - b. due diligence stage?
  - c. negotiation stage?

*HAR1 focuses on supporting initial electrolytic hydrogen production projects which will support early growth and demand in the hydrogen economy.*

2. Have you identified any challenges / issues during the delivery of the Shortlisting to Contract Signing stage? If so, could these have been mitigated for?

*Probe on RFI, due diligence, and negotiation stages.*

3. Do you know of any changes that have been made post-launch to the following:
  - a. RFI stage?
  - b. due diligence stage?
  - c. negotiation stage?

*And if so, probe on how well these have been communicated and implemented for each stage.*

## **HAR1 Support and Handling**

### Request For Information (RFI)

4. Overall, how well do you think the RFI support and handling operated/progressed?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved.*

5. To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the RFI stage?

- a. Do you think the questions asked in the RFI stage were communicated to the developers effectively?
- b. Was the data template / guidance clear [for the developers]? Did this allow shortlisted applicants to provide all the information they wanted to or could provide for the RFI stage?

*Probe on level of detail and timings. And on clarity of the supporting documentation.*

6. Do you think the clarification process during the RFI stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate.*

### Due Diligence

7. Overall, how well do you think the due diligence support and handling operated/progressed?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved.*

8. To what extent do you think the level and extent of communication with project developers has been sufficient with respect to the support and handling within the due diligence stage?

- a. Do you think the criteria used during the due diligence stage were communicated to the developers effectively?
- b. Was the data template / guidance clear [for HMG officials / technical/commercial advisors]?

*Probe on level of detail and timings. And on clarity of the supporting documentation.*

9. Do you think the clarification process during the due diligence stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate*

### Negotiations

10. Overall, how well do you think the negotiations support and handling operated/progressed? And more specifically:

- a. the cost justification engagement?
- b. the sharing of the Indicative Offer?
- c. the bilateral negotiations?

*Probe on which elements were more or less challenging / burdensome. And on what worked well, what could have been improved.*

11. Do you think the Best and Final Offer (BaFO) templates were clearly defined and structured?

*Probe on any areas of information/detail that was unable to be included.*

12. Do you think the clarification process during the negotiations stage was appropriate and timely?

*Probe on ability to obtain clarifications. And if the timeframe was adequate.*

## HAR1 Process

### RFI and Due Diligence

13. Are there any areas of the HAR1 due diligence process within DESNZ where you think enhancements could be made? Do you think the due diligence processes worked sufficiently well alongside the negotiation processes?

*Probe on extent to which the due diligence governance was effective.*

14. To what extent did the RFI template design facilitate the due diligence process? Do you think the RFI process provided a sufficient degree of evidence for the assessors?

*Probe on what worked well/what could be improved. And on how (well) the incorporation of supplementary documentation by shortlisted projects worked.*

15. Did you identify any particular challenges during the RFI process?

*Probe on if/how these could be avoided in the future.*

### Negotiations

16. Are there any areas of the HAR1 negotiations process within DESNZ where you think enhancements could be made?

*Probe on extent to which the negotiations governance was effective.*

### Future Lessons

17. Overall, what lessons do you think can be drawn from the delivery of HAR1 from Shortlisting to Negotiations?

*Probe on which areas have operated/progressed particularly well. And on which areas could be improved. And on if the delivery of HAR1 identified any necessary changes to the RFI, due diligence and negotiation activities/timings.*

18. To what extent do you think the overall method of delivery has been the most appropriate and efficient?

*Probe on specific areas that could be reduced/streamlined for future, larger scale allocation rounds?*

### **Closing and Thank You**



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