|  | |  | |  | |
| --- | --- | --- | --- | --- | --- |
| Network Innovation Competition 2020 Supplementary Answer form | | | | | |
| Project Name | H100 Fife | | | | |
| Question number | #28 | | Pro forma section | | 7 |
| Question date | 10/09/20 | | Answer date | | 14/09/20 |
| Question summary | Please provide us witha) the draft letter of comfort offered in response to SQ24b) extensive details of evidence that would accompany an option 2 and option 3 derogation request, including how and when ScGN would apply for such a derogation(There is no page limit associated with this question) | | | | |

## Answer (please retain document formatting and do not exceed 2 pages unless otherwise agreed with Ofgem) a) Find attached draft letter of comfort ‘200914 - H100 LoC Gas (Calculation of Thermal Energy) Regulations 1996. Docx'. This is indicative and is subject to revisions.

## b) While there is a spectrum of regulatory options for delivery of the project, we have presented to Ofgem what we believe to be the best solution for customers, and simplest regulatory route (Option 1) for delivering the project that requires no derogation, licence consent, licence exemption or changes to regulatory arrangements. As set out in the submission, the only identified requirement is a letter of comfort from Ofgem addressing the fit of the project into The Gas (Calculation of Thermal Energy) Regulations 1996 (as amended). A draft of this letter has been provided to Ofgem to satisfy Q28a) of this Supplementary Question, with further justification and context presented in our response to SQ24. We have previously engaged with Ofgem to set out a spectrum of regulatory options at a meeting on 10 March 2020, following an introductory call on 16 September 2019. This optioneering exercise has been shared with individuals at Ofgem to ensure our rationale and emerging conclusions have been transparent as they have developed. There have been several inputs that have allowed us to gain confidence that the presented regulatory Option 1 for the project is the best approach based on its simplicity for the customer, timeliness, value for money and its ability to ensure project compliance with licence conditions and key legislation. In 2019, we engaged with the University of Edinburgh to provide an academic review of the technical outputs under H100 NIA. Supplementary to this, University of Edinburgh were awarded the Hydrogen Commercial and Regulatory Alignment element (HyCORAL) under H100 NIA, which delivered an initial analysis of the commercial and regulatory options to consider for delivering the project. This engaged the input from several key stakeholders through surveys and interviews, and subsequently helped to shape the request for legal analysis of the regulatory options for the project. As presented in the submission, the legal analysis was undertaken by us with input from Addleshaw Goddard LLP. Following this analysis, we have agreed with University of Edinburgh that the HyCORAL work will be updated to reflect the legal review of the regulatory options for the project and submitted for academic peer review in line with other technical aspects of the project, such as odorant. We feel that this approach to the commercial and regulatory complexities of the project delivers a credible methodology that has both been legally and academically assessed. Another key input has been our engagement with the shipping community in order to test the appetite of involving a shipper in a hydrogen end to end demonstration and whether our emerging thinking around Option 1 would be a viable proposal for a third-party shipper to participate in. The response to this has been positive from the shipping community who recognise the need to decarbonise and the need for the supply chain to support subject to not being disadvantaged in doing so.

## We believe the proposed regulatory model provides full visibility of the end to end process for regulatory arrangements across a hydrogen system, which could inform future regulatory models that will require mapping for the decarbonisation of energy systems as new technologies are implemented.

The justification for proceeding with Option 1 is captured across a variety of drivers that shape the delivery, success and attractiveness of the project. Each of these is discussed in turn below. The outcome of the optioneering undertaken identified Option 1 as a clear frontrunner due to the barriers presented by Options 2 & 3. Further extensive details of evidence for Option 2 and Option 3 that have already been discounted, would require additional work to be undertaken beyond what has already been provided in response to SQ25.

Customer, Cost & Time

The customer experience is essential to the success of the project, therefore in developing our proposal for a regulatory model, we have worked to ensure that the customer is protected, and an arrangement is reached that will allow for simplicity by mirroring existing arrangements as far as possible. Under Option 1, the customer will be offered the opportunity to participate through the opt-in process. This will be the only consent that will require their time - all other aspects are to be managed on behalf of the customer. This includes the commodity balancing mechanism (discussed in detail in Section 3.2.2 and Section 8 of the submission, and referenced in our responses to SQ7, SQ9, SQ12 & SQ13) that allows the customer to receive a hydrogen supply without being disadvantaged by the increased production cost associated with a ‘first of a kind’ demonstrator. This cost neutral balancing exercise will not require any reporting or management by the customer, although we will collect relevant information pertaining to attitude towards hydrogen, experience of participation or reasons for non-participation. The customer will be able to retain their existing supplier if they changeover to hydrogen and/or retain the option to change suppliers if they want to.

Under Option 2 or Option 3, there would be further complexity added to the customer interaction by the more onerous requirement for SGN to handle, process and store customer financial data and the associated obligations of GDPR. This may deter customers from participating in the project, and as a result distort the measurement and validation of customer acceptance of hydrogen.

The appointment of a third-party shipper into the project will allow this shipper to participate in selling gas to suppliers in the same way they would for natural gas. The use of an experienced third-party shipper would remove any risk within the process and provide a true test of the current regulatory arrangements. In addition, should any problems arise which necessitate process change, these could be better handled through the shipper processes. Option 1 drives market competition to deliver the best service and avoids risking the customer experience by SGN undertaking a role that is not tried and tested. We have structured the project to ensure value for the end consumer and interested parties, and this is reflected in the optioneering for the regulatory model.

Under Option 2 or Option 3, either SGN Futures or ScGN would be required to undertake the role of shipper, which excludes participation from the market supply chain in delivering a project that could be transformational for the transition of the gas networks. It is possible that the gas networks could fulfil the role of a shipper in future energy scenarios, however, we do not see the value in adopting this approach for the purposes of the demonstration when instead we have the opportunity to demonstrate the current real-world operations and arrangements under H100 Fife. Deferring from Option 1 could obfuscate critical learning of system interfaces and regulatory arrangements as a result of deviating from normal arrangements by seeking a derogation.

We have engaged with the shipping community to understand the estimated cost and time associated with the set up for a new shipper, which would be required under Options 2 and 3. We understand that there are additional costs assigned to this process and it could take a minimum of 6 months to execute. Options 2 and 3 introduces a new process to SGN that is not within our expertise as a gas distribution network, therefore additional resource and potentially external consultant support may be necessary for SGN to execute the shipping activities. This would result in an additional cost to the detriment of the project and an estimated 2-3 months delay in the programme if the project were to change to follow either Options 2 or 3. This delay would be as a result of additional activities needed to deliver Option 2 or 3 such as extensive additional analysis, understanding any possible licence complexities in view of our existing licence and drafting multiple letters of derogation. While we would seek to mitigate this timescale, there would be significant advantage in determining the agreed regulatory option as soon as we are able. Thus, we do not feel that moving away from Option 1 is in the best interests of the gas consumers’ money and does not deliver the optimal value for money solution. Cost savings are achievable through the delivery of Option 1 by avoiding the shipper creation process. This is also a potential programme delay risk to be considered for either Option 2 or 3.

Certainty on the regulatory option solution is required in order to manage the financial complexities and set up the project’s structure to align with the various funding streams and entities involved in delivering the project. This includes clarity of approach for adhering to funding terms and conditions, internal governance processes, as well as structuring and contracting strategies. The project baseline cost would be affected in order to accommodate the additional analysis that would be required to understand the cost impact of delivering under Options 2 or 3.

We are committed to delivering H100 Fife in line with the regulatory option that provides the best customer value proposition with minimal disruption and maximises the learning potential for future hydrogen systems and projects. We believe that the derogation free Option 1 offers this opportunity, and we are committed to supporting Ofgem in ensuring this approach can be executed in the best interests of all parties.