

WORK PACKAGE 8A STAKEHOLDER ENGAGEMENT 30 OCT 2019**Q&A SUMMARY****Q1 What audiences are you targeting with the demonstration facilities?**

Primarily we want to reach the energy industry in general: from appliance manufacturers through to installers and gas distribution networks. We also intend to have a demonstration showroom at COP26 in Glasgow in November 2020, so this will be for an international audience attending the climate change conference. We also wish to be present at events and exhibitions such as Hearth and Home, Utility Week, etc. We may also be invited to attend other events by interested parties.

Q2 What are the key messages for the demonstrations?

The main purpose behind the demonstration facilities is the demonstration of the appliances that have been developed and also to ascertain stakeholder feedback. Consistency of messages will be important, and we will be creating a briefing pack to accompany the demonstration facilities so that anyone hosting them is able to speak knowledgeably and answer questions. Our website has a glossary and 'lines to take' and we will also continue to add to these.

Q3 Will the demonstration facilities be identical for all the events? For e.g. will the moveable showroom be the same at the start of the roadshow as at the end or will it progress in any way?

The exhibition displays will need to be scaled up and down to suit different events and conferences, so we envisage that these facilities will change. We expect the moveable showroom facility will remain broadly similar from the beginning of the programme to the end, albeit that the appliances may be changed. The chef demo facility would remain the same.

Q4 Will you include the specific dimensions for all the prototype appliances in the ITT?

The ITT doesn't include the dimensions of the specific appliances – but this will be provided. The appliances are being developed to be a standard size (and in line with their reference natural gas products).

Q5 Why is there so much focus on needing experience with working with hydrogen?

The standards for domestic / commercial hydrogen are still under development. This is likely to be one of the first times that hydrogen will be used at industry events such as these - so for the purpose of health and safety and method statement sign-off there should be the appropriate and relevant experience of working with hydrogen. It is expected that bidders will need to liaise with organisations that can provide advice and guidance on how to install systems and work with hydrogen.

Q6 Where is the moveable demonstration facility to be used? It seems that this is really the most important facility and it would be the more expensive facility to create.

We can confirm that the aspiration for the moveable demonstration facility is for it to be displayed at COP26 in November 2020 in Glasgow. We also would wish to test and use the facility at a number of locations ahead of this. For e.g. events and exhibitions such as Hearth and Home in Harrogate, Low Carbon Networks and Innovation and All Energy, etc.

Q7 Who will pay for hydrogen? Do you know how much hydrogen will be used and what is the is the cost of running a unit on hydrogen?

We will be able to make a good estimate of the amount of hydrogen each appliance will use, and also the cost of hydrogen. We would expect the contractor to arrange the purchase and delivery of the hydrogen but that the contractor would be reimbursed at cost for the hydrogen used.

Q8 Is it possible to demonstrate hydrogen appliances being developed outside the Hy4Heat programme?

If the hydrogen appliances can demonstrate that they have met the requirements in Hy4Heat's work package 4 and demonstrate safety certification in accordance with PAS4444 then they could be considered. However it's important to note that the facilities are being developed specifically to demonstrate the appliances being developed within the Hy4Heat programme.

Q9 Is the demonstration of the commercial appliances being developed under W5b included in the scope of works for WP8a?

We anticipate there may well be some commercial appliances that could be included in these demonstration facilities.

Q10 How important is sustainability in the development of these facilities? How will you measure it in the procurement process? This will have an impact on the cost of materials used, etc.

Sustainability will be part the award criteria. Requirements will be described in the ITT. The price indicated in the PIN is £500k. However, this price is indicative and subject to discussion and revision, if different pricing scenarios or sustainability factors are added.

Q11 How are the evaluation criteria weighted?

This will be defined in the ITT. It's standard for cost to be no less than 25% weighting.

Q12 Intellectual Property and brand are important to appliance manufacturers – how will these requirements be met in the facilities?

The appointed contractor will be expected to liaise with both technical and marketing contacts of the developers and create demonstration facilities in line with their guidance. We will also expect the facilities to have security arrangements in place to protect the developers' products.

Q13 Is the intention to demonstrate all the developed appliances in one single demonstration facility? Have the complications of this been fully thought through (i.e. the number of appliances as well as the supply and storage of hydrogen)

Our aim is to demonstrate representative appliances from all developers, not necessarily all at the same time. It's expected that hydrogen will be supplied and stored in cylinders, however the appointed contractor is expected to research the different supply options.

Q14 How will appliances be installed and commissioned?

The successful contractor will need to provide a safe installation for the demonstration of these hydrogen appliances. This is most easily achieved by the contractor hiring a suitable qualified natural gas installer who will liaise with appliance developers as required and an organisation with experience of working with hydrogen.

Q15 What are the expectations of demonstrating the appliances? Will the appliances be fully operational (e.g. have a visible flame, hot tap water, etc?)

The appliances will be fully operational in the moveable demonstration showroom facility. Staff will run regular demonstrations (for e.g. every hour, or every few hours).

Q16 How is it envisaged that feedback from the visitors is captured? And how will the success of the demonstration be measured?

Capturing feedback is an important part of the demonstration facilities and it is for the bidders to determine how best to do this. It will be essential to understand visitors' views – whether they're positive, neutral or negative and so on.

The success of the demonstration will be measured on such criteria as the quality of the feedback received and the feedback reports produced. A high percentage of the visitors providing feedback could also be one of the success criterion.

Other success factors for the programme will include the demonstration facilities themselves, the creative execution of the design, collaborative working relationships, etc

Q17 Will the demonstration showroom need to be installed and uninstalled at all locations? Is it necessary to have a specialised gas installer?

Yes, it is anticipated that the moveable unit will be modular. The installation needs to be signed off at each location. Location specific risks assessments need to be provided. Logistics and project management are crucial services that need to be provided.

Q18 Is it possible to use larger cylinders for hydrogen instead of MCP (manifold cylinder pallet)? Larger cylinders are easier to be transported than the multi cylinder packs.

The provision of hydrogen should be discussed between the bidder and known vendors of hydrogen. The guidelines to follow are BCGA.

Q19 What's the chef demo unit for? Where will it be used?

We expect this to be used in addition to either the exhibition stands or the moveable demonstration facility. It could be used outside or inside and be utilised for one or two hours at a time, using Type 4 cylinders of hydrogen

Q20 Where will the exhibition facilities (without gas) be used?

These exhibition display stands will be used at industry events and conferences. They will feature hydrogen appliances (without gas) for display purposes only.

On all exhibition displays we will need to explain the Hy4Heat programme – in the context of a hydrogen pathway using visuals, videos, etc. We also need to have mechanisms in place to get feedback.

Q21 What kind of facility do you envisage the moveable demonstration showroom to be – and where will it be used?

The moveable demonstration showroom must be transportable, but able to remain in position for several weeks, for example a static caravan, residential park home, portable cabin or equivalent is suggested.

The facility will be used at COP26 in November 2020, Glasgow. Before then it will also be used at a number of other industry events and conferences - for example Hearth & Home, Low Carbon Networks and Innovation etc

Q22 How is it expected that hydrogen leaks are detected?

The hydrogen used will not be 'odorised' so it will be necessary for hydrogen audible alarms to be fitted. Facility staff need to be suitably trained and informed about the venue to be able to respond appropriately.