

Network Innovation Competition Full Submission

Supplementary Answer Form

Tick if this answer is Confidential: ☐

Tick if this answer has been provided verbally: ☐

Project code:	WWUN01	Question Number	13
Question date	3 rd October 2013	Answer date	11/10/2013
Submission section question relates to	Panel Question		
Topic			
Question	<p>Please describe how you would ensure that all customers – and, in particular, customers who don't have a relationship with WREN - would give you access to their premises. Also, please explain -</p> <p>(a) What are your plans to deal with customers who don't give you access?</p> <p>(b) What will you do if customers' appliances cannot be adapted? In particular, what arrangements will you put in place for customers? What costs have you allowed in your project budget to address this issue?</p>		
Notes on question			
Answer	<p>We have assumed that we will need to do appliance inspections for each customer but this is not certain and depends on what is required to gain an exemption. We have also assumed that we will need to inspect appliances and modify those that were produced before 1996 or any appliances whose date of manufacture cannot be confirmed; after 1996 all gas appliances were tested using G222 gas which contains 23% by vol. hydrogen</p> <p>It is important to realise that the NIA work may establish that 2% hydrogen / natural gas does not burn differently from natural gas and therefore we will not have to inspect appliances. It is also important to note that Hydrogen is successfully injected in other EU countries and no issues have been reported which suggests that the issues with appliances may be overstated.</p> <p>We are assuming that it will be relatively easy to gain access to WREN members' premises and therefore the issue will be access to the premises of non WREN members. For these non WREN members we will use the following to both identify the premises to visit and improve access rates.</p>		

We can use demographic profiling to target high risk premises such as those constructed before 1996 that are more likely to have appliances that need inspecting.

In addition:

- The high density will make repeat visits easy as we will have resource in the area for a significant period
- The WREN shop will provide a point of engagement
- We expect that there will be local interest in the project and conversations about the appliance inspections
- We will market the benefits of having annual gas inspections especially for older appliances and hence the value of our free inspection
- We may offer incentives for example free Carbon Monoxide alarms and organise prize draws to assist in achieving access to all properties

If customers are reluctant to provide access then we would seek to speak to them in person to explain why we want to inspect their appliances and seek to allay their concerns and provide reassurance.

If we **are** required to inspect every appliance and after all exhausting all possibilities, **one** customer does not allow access and then we will not be able to able to inject more than 0.1% hydrogen; but there is still value from doing work as many project aims are achieved (see Question 12)

If customer appliances cannot be adapted we may need to replace them, this is highly unlikely and will only occur if replacement burners cannot be fitted.

For our project costings we have assumed that:

- 3000 inspections taking one hour will be required
- 10% or 300 will require a return visit of 2 hours to do modifications
- £15,000 for materials such as burner replacement or appliance replacement
- 50% contingency on all of the above to allow for considerable uncertainty

In the course of our inspections we may discover a few appliances that are "immediately dangerous" for example evidence of incomplete combustion resulting in Carbon Monoxide being produced. We will deal with in line with our current procedures thereby providing significant safety benefit to customers

We also may find appliances that are "not to current standards" these are not dangerous and we will provide advice

For a rollout it is impractical to inspect every appliance in GB so we would need to do more work for example to establish whether appliances that were not designed to run with hydrogen could be shown to be safe. Experience

	<p>with biomethane was that the first few connections, for example Didcot, were granted site specific exemption with conditions such as monitoring the network but once WWU had done further work a group exemption could be granted. We expect this to be the case with hydrogen injection and that in due course the HSE may be able to provide an exemption to generally allow higher levels of hydrogen.</p> <p>Additionally the government may legislate to force burners to be able to burn methane hydrogen mixtures and phase out old appliances; precedents include smokeless zones forcing customers to use smokeless fuels and the phasing out of incandescent light bulbs.</p>
Attachments	
Verbal Clarifications (Consultants)	