

Gas Network Innovation Competition Full Submission
Supplementary Answer Form

Project: Commercial BioSNG Demonstration Plant

Tick if this answer has been provided verbally: ☐

Project code	NGGDGN02/1	Question Number	19
Question date	28/8/15	Answer date	3/9/15
Submission section question relates to	Section 4b(i)		
Topic			
Question	NGGD suggest (page 22) that commercial support is unavailable unless there is a commercial plant operating continuously at a significant scale. Why can't continuous operation not be demonstrated with the pilot plant?		
Notes on question			
Answer	<p>Funders and other stakeholders require demonstration of a technology on a continuous basis for several months and, in some cases several years, to show that there are no unexpected maintenance or operational issues.</p> <p>The pilot plant was designed to provide a proof of concept of the technology and allow experiments to be carried out to increase understanding of the process, validate models and allow optimisation. The existing gasification plant is not able to operate on a continuous basis for a variety of reasons (including slag tapping limitations, electrode changeover and permitting limitations). However, it was recognised that from a technical perspective it was important to be able to operate the catalyst for periods longer than typical experiments. Therefore an intermediary gas store was included in the pilot to enable the catalytic part of the process to run for longer periods if required.</p> <p>This is very different from a full chain process operating on a continuous basis, reflecting commercial operation as required by funders.</p>		

	<p>Furthermore, the scale of the pilot plant (one thousandth of commercial scale) is too small for it to address stakeholder concerns regarding commercialisation.</p> <p>For these reasons, a substantially scaled up demonstration plant, able to operate truly continuously, is vital to enable commercialisation. This will operate synergistically with the existing pilot plant. Technical developments such as further catalyst optimisation, operator training and operational protocol development will be undertaken on the pilot plant while the demonstration plant will operate continuously to build confidence in the process.</p>
Attachments	