

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	4
Question date	25/8/2015	Answer date	27/8/2015
Submission section question relates to	3.1		
Topic			
Question	Why are the project partners expecting full scale BioSNG plants to be fundable without support by 2025 and not before?		
Notes on question			
Answer	<p>It is very difficult to forecast the year that BioSNG plants will be fundable without any Government support. The Project Partners believe that this will be achieved by 2025 but it could take place earlier.</p> <p>The key variables that determine the economics of a BioSNG facility are:</p> <ul style="list-style-type: none">• Funders' hurdles rates for the technology.• The capital and operating costs of facilities.• Gate fees for waste.• The price of natural gas.• Tax, interest and inflation rates. <p>Hurdle rates of return will fall over time as operational plants come on stream and funders gain confidence.</p> <p>Capital and operating costs will fall over time through learning effects, economies of scale and incremental technical improvements. Capital costs will also reduce as construction contractors' margins and guarantee costs fall as the technology matures.</p> <p>Gate fees for waste may increase over time as the technology matures and waste providers' perception of the risk of plants rejecting waste reduces. For example, incineration facilities based on mature technologies can</p>		

	<p>currently secure gate fees 20% higher than plants based on less mature gasification technologies.</p> <p>DECC and others forecast that natural gas prices are likely to increase during the next decade, particularly if more effective carbon pricing schemes are introduced, increasing the value of low carbon sources such as BioSNG.</p> <p>Overall, the trends in each of these variables are to improve the economics of BioSNG. BioSNG facilities will not require Government support once the values expected for a mature technology are achieved. This should be achieved by 2025 at the latest.</p>
Attachments	