

Network Innovation Competition Full Submission

Supplementary Answer Form

Tick if this answer is Confidential: ☒

Tick if this answer has been provided verbally: ☒

Project code:	NGGTGN01	Question Number	27
Question date	15 October 2013	Answer date	17 October 2013
Submission section question relates to			
Topic			
Question	Please explain why the other OEMs have discounted VIGV as a viable option, given they explored the VIGV option.		
Notes on question			
Answer	<p>NGGT interviewed the OEM's on the feasibility of using VIGVs in combination with speed control for extending the range of gas pipeline compressor envelopes. The OEMs formal responses are set out in table 4, section 4.1 of the Fraser Nash report.</p> <p>The Fraser Nash report also noted that all although most of the OEMs interviewed have investigated this technology, they reported that their primary research and development focus has been on increasing the efficiency of their compressors through improved impeller aerodynamics. NGGT's follow-on discussions with some of the OEMs confirmed this.</p> <p>The probable underlying reasons for the reluctance of the OEMs to develop VECTOR-type technology for gas pipeline compressors are:</p> <ol style="list-style-type: none"> 1. Most of the demand for process gas compressors is in the upstream oil and gas industry – exploration and production - where compression duties are predictable and well centred around a "sweet spot" in the compressor envelope. NGGT's compressor operation is usually all around the envelope of operation due to the highly intermeshed network we operate; the majority of OEM's compressor 		

	<p>orders come from the upstream oil and gas industry;</p> <p>2. The OEM's expressed a preference for installing new compression units or carrying out compressor re-wheels since this approach fits better with their current business models which favour repeat business and bulk production within their more lucrative market in the upstream oil and gas;</p> <p>In National Grid's opinion the question of viability therefore concerns marketability rather than technological feasibility.</p>
Attachments	
Verbal Clarifications (Consultants)	