

analyst view

The Role of Procurement Policies in Developing the Fuel Cell Industry

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An aerial view of the Nottingham University Hospital City Campus

In the two analyst views in December, we encouraged you to take an interest in the call from the Nottingham University Hospitals NHS Trust in the UK for an efficient, low-carbon CHP solution for its 167 buildings. We [reported the announcement of this initiative](#) on 2nd December 2011. We view this as a particularly important initiative because it shows a way to overcome many of the barriers to the commercialisation of stationary fuel cells.

Public procurement policy can be a very powerful tool in influencing the way that markets develop. The most apparent reason is the size of the sector. In the EU, public authorities spend some 2 trillion euros each year, a sum representing nearly 20% of EU GDP. Additionally, many believe that public bodies are willing, able, even obliged to take environmental and other societal costs into account when making their purchasing decisions and can therefore justify paying a premium for a product or service with reduced environmental impact. These may be valid points, but a close look at the Nottingham initiative shows that green public procurement is about much more than the money that is made available. Indeed, the size of the budget may not play any part in the power of the project to bring forward the commercialisation of fuel cells.

The first point to note about the Nottingham call is the way that the requirement is specified. The title of the Market Sounding Prospectus says that it is “informing the procurement of an integrated ultra-low carbon energy solution”. The specification is outcome-based, not means-based. They are looking to buy kWh of power, not a certain type of generator with a certain kW rating. This leaves the way open to new technologies such as fuel cells in a way that a specification based on currently available systems does not. Further, the outcomes specified are

broader than simply the kWh required. The system must be reliable, low maintenance, flexible and deliver progressive improvements; it must deliver financial savings and CO2 emissions reductions; and it must be fully integrated, monitored and metered. An assessment of €/kWh costs at the time of installation will almost certainly favour established technologies for which development costs are sunk and the benefits of mass production achieved. Considering the benefits of new technologies such as fuel cells against this broad range of required benefits is much more likely to favour new technologies as well as delivering long-term performance benefits and cost savings to the customer.

Beyond the way that the requirement is specified, the Nottingham Trust is being as helpful as it can in developing the supply chain. It is looking to involve potential suppliers in the development of the outcome-based specification and of the procurement process itself. It understands that a novel system is not available from a single established supplier and by publishing the Market Sounding Prospectus and organising an event on site on 16th January it is hoping to “catalyse the supply chain”. Given that incumbent technologies are supported by a well-developed supply chain and decades of application experience, this engagement by the buyer is very valuable in reducing the disadvantage suffered by fuel cells and other new industries, as is the length of time – four years – that they have allowed for the procurement process.

The length of this procurement process together with the certainty of demand at the end helps reduce the risk involved in any new system development or integration exercise. The risk involved in speculative product development is a factor limiting the pace of fuel cell system development.

What the Nottingham Trust is not able to offer is the scale that is normally viewed as the main advantage of public procurement. They can only buy for themselves. However, the Market Sounding Prospectus does contain a commitment to “actively support the stimulation of a wider market demand through a range of publicity vehicles. For example, the case study will be well publicised through the pan-European healthcare market.”

So the benefits to the stationary fuel cell industry of the procurement approach exemplified by the Nottingham Trust stem from its open, outcome-based approach to specifying its requirements; from the broad range of outcomes defined; from its willingness to engage with potential suppliers to create a supply chain where none yet exists; and the long term commitment to purchase a system that meets its needs, allowing time for development. It is exactly what the stationary fuel cell industry needs to make the next step on the path to becoming a fully commercial supply chain. The benefit does not come from the size of the budget and the fact the Trust is a public body is incidental: these practices would deliver the same benefits to customers – and suppliers – in the private sector.

The closing date for registration for the Nottingham site visit is next Monday, 9 January. The site visit itself is on 16 January. The project website is at www.nuh.nhs.uk/ultralowcarbon.

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