

SSET1007 Orkney Energy Storage Park

Tender Background

This project is a commercial investigation of the possible markets open to Distribution Network connected storage. The project did not require a call for competition under the provisions of the Utilities Contracts Regulations, being exempt under regulation 17(1)(b), however SSEPD considered it essential that a tender process was undertaken. Completing a fair and open tender process meant that the true market price for the constraint management service could be identified and that would ensure that the final market model would accurately reflect the economic picture. To ensure that the tender process was run in a consistent and fair manner in accordance with best industry practice, SSE Procurement were involved throughout the process.

Tender Process

The tender process started in November 2011 with the Achilles Utilities Vendor Database (UVDB) being used to select a list of companies that were best suited to provide the service required by the project. (The UVDB is hosted by Achilles Information Ltd, an independent company, and is used by many utility companies of which SSEPD is one. The UVDB contains information on many different suppliers of many different goods and services. Utilities can then use the database to search for relevant suppliers of goods and services relevant to the tender for the particular project.) The list comprised of 129 potential suppliers which were then issued the Pre-Qualification document to establish their interest in submitting a full tender. Of these 129 potential suppliers four were over and above what was returned from the UVDB search and a result of direct discussions with interested parties prior to the project starting. In their reply the 129 potential suppliers were asked to answer thirteen questions that would allow the most suitable suppliers to be selected to move forward to the next part of the process. The questions were geared to assess competence, capability and interest of the suppliers in undertaking the work.

Of the 129 potential suppliers, 103 did not submit a return leaving twenty six. Ten of those twenty six either answered that they weren't interested or removed their previous submission, which left ten. Of those final ten, three were removed using a consistent scoring matrix, shown below, which scored each potential supplier against their ability to deliver/install a correctly sized system by the proposed energisation date and had previous experience of similar sized installations. This was all completed in a timely manner.

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13
Is the project of interest to your organisation? (Yes = 1, No = 0)	The project requires the system to be installed and commissioned by October 2012. Please confirm you have the resources to meet this time frame. (Yes = 2)	If no for Q2 advise when you could achieve this? (If < 12 months = 1 else = 0)	Can your organisation supply a battery storage and PCS either directly or with a partner, with a min of 500kWH? (Yes = 1, No = 0)	Can your organisation supply a battery storage and PCS either directly or with a partner, with a min of 1MW? (Yes = 1, No = 0)	Can your organisation install a battery storage and PCS either directly or with a partner, with a min of 500kWH? (Yes = 1, No = 0)	Can your organisation install a battery storage and PCS either directly or with a partner, with a min of 1MW? (Yes = 1, No = 0)	Have you any previous experience of carrying out installations on this scale either directly or with a partner? (Yes = 1, No = 0)	If you answered yes to Q8 could you please provide contract details specifically including the technology, the capacity, the contract value and the date. (All = 0 as info only)	Can you give a reference for a previous similar sized installations? (Yes = 1, No = 0)	If you answered yes to Q10, please provide summary details specifically including the technology, the capacity, contract value and date? (All = 0 as info only)	Do you or your proposed partner have any experience of carrying out work within the UK under CDM regulations? (Yes = 1, No = 0)	If you answered Yes to Q12 please provide details including what was installed, contract value and date. (All = 0 as info only)

In January 2012, the remaining seven suppliers were sent the Invitation to Tender containing in depth information about the project and the detail of the requirements for the role of supplier and/or operator. These seven suppliers were then reduced to three. This was due to four of the suppliers, who now fully understood the requirements either feeling that unable to fulfil the role or to meet the timescales, withdrawing from the process. The remaining three suppliers then submitted their full tenders in February 2012 and were then invited to attend pre-tender presentations to discuss their submissions. SSEPD had engaged two separate storage expert consultants (Swannbarton Ltd and EA Technology Ltd) to attend the presentation and form part of the SSEPD assessment panel.

The Managing Director of Swannbarton, and the person completing the work for SSEPD, was Anthony Price. Anthony Price has more than 20 years experience of the utility energy storage industry. He initiated the development of the polysulphide bromide flow battery of National Power PLC and was responsible for establishing the initial technical program and the commercialisation plan for the project, including the construction of a 1MW flow battery test facility and the outline design and concept of the 10MW demonstration projects. Anthony Price was an elected director of the Electricity Storage Association for 1997 and 2003 and is the author of many definitive papers and journal articles on energy storage. Recent papers on the commercial structure of electricity storage projects have been published in English and in German journals. He initiated the International Flow Battery Forum in 2010, and co-ordinated the formation of the Cenelec Workshop Agreement on Flow Batteries. He is the Director of, and provides consultancy advice to, the Electricity Storage Network.

John Baker was the EATL lead person working on this project. He was instrumental in launching the International Energy Agency's (IEA's) Annex IX electrical energy storage work programme and has served as UK Delegate to the Executive Committee of the IEA's Implementing Agreement on Energy Conservation through Energy Storage. John Baker has also discharged the lead technical responsibility in various subsequent storage and fuel cell technology assignments, including those for the DTI, ITI-Energy, MoD, the Carbon Trust, Scottish Enterprise and financial institutions, including a number of safety case assessments, such as described above. He also led the DTI Global Watch Electrical Energy Storage Mission to the United States, December 2006, which included direct dialogue with a range of storage systems developers and early adopters.

Swannbarton were also asked to analyse the submissions and provide a score for each party. Following the presentations, the two consultant groups then scored the presentations and/or the submissions and provided feedback on the two most suitable suppliers that would then be named as preferred suppliers.

The SSEPD Project Manager then reviewed the scoring by the two consultants alongside our own internal scoring, which were broadly aligned, and selected the two preferred suppliers. This was completed in March 2012. Following this both remaining potential suppliers were given a 3 week extension to ensure that they had a sufficiently detailed design folder to submit to EA Technology Ltd for a safety appraisal, which was submitted in March 2012.

However, following an SSEPD LCNF budget review it became clear that there was insufficient budget to cover both installations. Therefore, to assess who would provide the best value to the project the best and final prices submitted by the two preferred suppliers were revisited. This falls in line with standard procurement process where submitted tenders are qualified in terms of technical viability and then from that group of bids that are technically valid, a final bid is selected based on the best value to the project.

The prices submitted covered two basic prices; £/kWh for availability and £/kWh for activity. The SSEPD Project Manager calculated the total cost if both the suppliers were available for every period of every day for the total project duration with a nominal activity of 100MWh of imports. This showed that for completing the same activities and declaring the same amount of availability the SSE Generation bid would cost 13% less than the other suppliers bid over the course of the

project. SSE Generation had the best technical submission, being 10% ahead of the second party on the scoring matrix.

The party selected on the basis of this knowledge, and the above assessment, to complete the safety appraisal, which is the final part of the tender process, was SSE Generation.