

Network Innovation Competition Full Submission

Supplementary Answer Form

Tick if this answer is Confidential: ☐

Tick if this answer has been provided verbally: ☐

Project code:	SPT EN 01	Question Number	37
Question date	24/09/2013	Answer date	26/09/2013
Submission section question relates to	Bilateral Meeting		
Topic	Contractor Cost		
Question	We want to know exactly what the University of Manchester will do and what each of the elements will cost. What is your previous experience of using a university to do parallel development/ testing for TOs or the SO?		
Notes on question			
Answer	<p>Those tasks undertaken by the academic partner will be mainly completed by the PDRA (Post-Doc Research Assistantant). The first candidate for the role is Dr. Peter Wall, with the support from the principal investigator-Prof. Vladimir Terzija. In the research team, there are other five ideal candidates (each of them are well qualified) if Dr. Peter Wall has other commitments.</p> <p>The role of Manchester University will be focused on the following specific areas (the corresponding workpackage is shown for each, along with the cost of the associated Academic labour):</p> <ul style="list-style-type: none"> • Model Validation (Workpackage 3, £69k): Analysis of WAMS data to evaluate oscillatory and transient characteristics, comparison with existing GB model characteristics and report on discrepancies; • Stability Assessment Uncertainties (Workpackages 3.1, £33k and 3.4, £7k): Assessing the influence of uncertainties in measurements, models and generation on the B6 Transient Stability margin. Also assessing the reliability and suitability of aggregate area angle measures for use in system operation. • Optimal Monitoring Placement (Workpackage 4B, £112k): Development of a methodology for optimal deployment of monitoring, and application of this to the GB system to inform future rollout. The project consortium is undertaking a thorough review to 		

explore the feasibility of reducing of budgeted resources for this task.
The outcome will be informed as part of the re-submission.

- **Independent Validation & Performance Evaluation (Workpackage 4C, £88k):** providing a test-bed for both PMU and SSO device assessment, and full measurement-to-user display testing of the WAMS as whole.

In addition to these specific tasks there is £121k allocated to cover a full-time PhD student for the duration of the project, whose primary tasks is to support the PDRA in developing the methodology in testing, validating and laboratory demonstration. The PhD student will play a key role in the training course development (WK 5). He/she will be focused on the feasibility of a close-loop control strategy development, which will ensure the continuity of the project. At the moment, a very qualified candidate has been identified for this post. The candidate achieved 93% of her studies. She is currently working for a research institute in Germany on WAMS. We are keen to secure her role in the project.

The University will also play a **significant role** in the aggregation and dissemination of knowledge throughout the course of the project, including contributions to papers, reports and conference presentations, as well as providing a valuable independent review of project findings. There are estimated costs of £114k associated specifically with this work.

As highlighted in the original full submission documents, SPT, together with its supporting NETSO and TO partners, has extensive experience and track records in working with academic partners. The list of previous projects with academic partner(s) playing a parallel testing role can be found in Figure 5-1 in the submission document.

As highlighted in the Figure, SPT sponsored a project with a local company to carry out a trial project on Phasor Measurement Unit data testing between 2007 and 2011, under IFI. Durham University carried out some feasibility studies in the project.

Another specific example can be given as National Grid has been working with Edinburgh University on a DTI project where the university carried out some testing for the measurement equipments from different manufacturers.

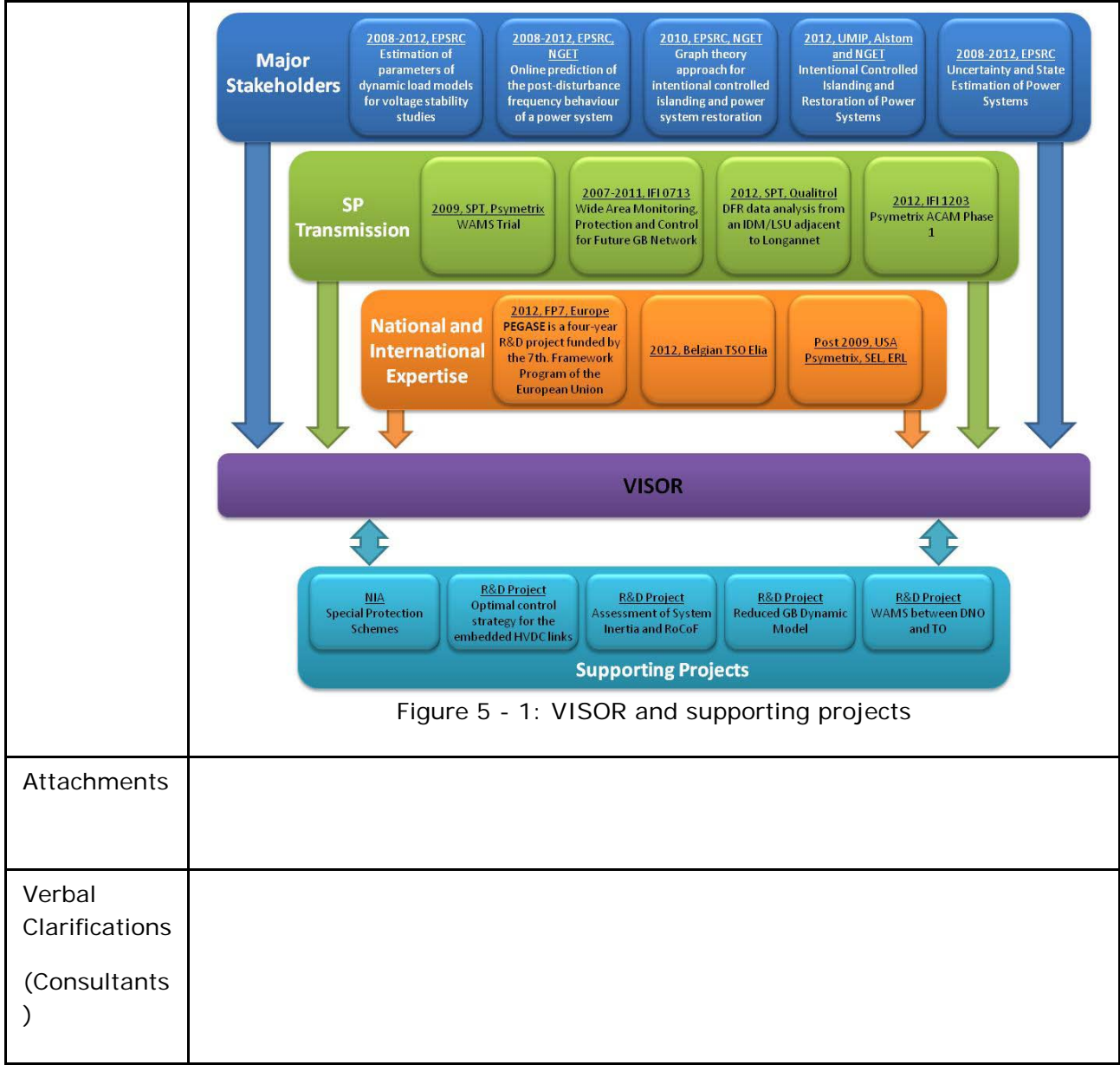


Figure 5 - 1: VISOR and supporting projects