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**Programme Area:** Carbon Capture and Storage

**Project:** Network Modelling

**Title:** One Page Summary

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**Abstract:**

Given the required speed of roll-out, cost and complexity of the future CCS infrastructure in the UK, modelling will play a crucial role in ensuring a practical, cost effective and robust network of assets. Modelling can potentially support decisions at a range of business levels, from strategic planning through to plant & system operation and maintenance. Through detailed strategic analysis and stakeholder engagement, the ETI has identified that a need exists to develop a Modelling Tool-Kit for partial (but full-chain) CCS systems to develop understanding of and support business decisions around the design, operation and maintenance of assets (eg power stations, compressor stations) within a future CCS system.

**Context:**

A scoping study to identify the requirements for the project subsequently procured by the ETI to develop a CCS system modelling toolkit.

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**ETI Programme:** Carbon Capture and Storage  
**Project Name:** System Modelling FRP  
**Contractor:** E4tech

### **Context**

Given the required speed of roll-out, cost and complexity of the future CCS infrastructure in the UK, modelling will play a crucial role in ensuring a practical, cost effective and robust network of assets. Modelling can potentially support decisions at a range of business levels, from strategic planning through to plant & system operation and maintenance.

Through detailed strategic analysis and stakeholder engagement, the ETI has identified that a need exists to develop a Modelling Tool-Kit for partial (but full-chain) CCS systems to develop understanding of and support business decisions around the design, operation and maintenance of assets (eg power stations, compressor stations) within a future CCS system.

### **Project**

In order to define the requirements for such a Modelling Tool-Kit, the ETI commissioned a short FRP Project, led by E4tech and supported by Process System Enterprises (PSE) and Amec. The project engaged potential stakeholders for the Tool-Kit, including ETI members, and made recommendations on the functionality of the component & whole system models and the modelling environment within which such models would be developed. In addition a review of potential modelling tools was completed, and suggestions made for a project plan to develop an initial version of the CCS Modelling Tool-Kit.

### **Key Project Findings**

The project found clear and coherent requirements amongst the stakeholders for a Modelling Tool-Kit to simulate whole chain CCS systems and operational events occurring in such systems. Based on the project's recommendations, the ETI launched a Request for Proposals for a full project to develop a Modelling Tool-Kit in October 2010.

### **Further Information**

Full information on the results of the project is available to ETI Members in the confidential technical report.