Stephen R Browning BSc, MIET MIEEE

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Remaining contact details available on request.

A highly experienced and proficient DEVELOPMENT ENGINEER with a successful career in the UK Electricity Supply Industry; expertise in the analysis of Operational processes and the design and facilitation of effective computing solutions to provide economic generation advice from minute to minute despatch through to planning timescales. Stephen functioned at the centre of the System Operation modelling developments during the period in which GB Power Trading and Power Plant mix has undergone the most rapid and extensive changes in the world.

Particular expertise in solving complex problems and making things work, both for Internal and External Customers. Please see my Bullet Point Strategy, History and Future Power Systems (FPS) articles on my webspace.

Self motivated, dedicated, adaptable, innovative, tenacious, tolerant and personable.

CAREER HIGHLIGHTS

- Innovative ideas for effective integration of Distributed Resources and Renewables.
- Improving the facilities for the large CEGB Generation/Fuel Planning Programme suite, changing its operation from running monthly to running daily.
- Development and Implementation of the first Generation Scheduler and data management system to be used on the British system from Control through to planning time scales.
- Assessment of changes to Business Process and design of revised Generation modelling facilities for National Grid from privatisation in 1990 onwards.
- Review and design then Implementation of a new Scheduler to meet GB requirements plus revised data handling system.
- Appraisal of Business process changes and revised modelling requirements for the introduction of New Trading Arrangements in 2001.
- Analysis of the French Trading model to identify the requirements for harmonised Trading methods on the England to France Interconnector.
- Assessed and resolved Generation/Demand modelling and registration issues for the British Electricity Trading project; extension of the England and Wales market and NGT System Operations to cover Scotland.
- Analysing a variety of IT development tenders for different utility projects in the Electricity Operations and Trading arena.
- Author of 22 Articles on Future Power Systems - Basics through to Brave New World.

CAREER HISTORY

2009-date Electricity Efficiency

- Major revisions to the Future Power Systems articles, including addition of papers on Smart Enterprise, Smart Customer and Future Energy Strategy/Value. Analysis of the dangers with UK generation strategy and defining a robust path to analysis and evaluation. Gaining much support for my position on the issues and how Electricity Supply can evolve for a sustainable future.

2009-10 ABB Inc Energy Information Services

- National Grid Balancing Mechanism Replacement Project. Clarifying BM requirements for ABB as potential vendor. They have now (Oct 2010) been awarded the contract.

2008-9 Zensar Technologies – Consultant Business Analyst

- National Grid Balancing Mechanism Redocumentation Project. Collecting and clarifying BM functions from diverse documentation streams for the team to import to the Rational Planning Tool suite.

2007-8 European Copper Institute – Leonardo Energy

- Prepared 19 Articles on Future Power Systems – the 'Big+Little' picture to show how Distributed Energy Resources and Renewable Generation can be managed effectively to reduce fuel burn and emissions on fossil fired generation.

2005-6 Zensar Technologies – Consultant Business Analyst

- Analysing IT tenders and developing project proposals covering many diverse areas of Electricity Operations and Trading; both GB and overseas utilities.

1968-2003/5 CEGB then NATIONAL GRID UK Electricity Operations

1981-2003/5 SENIOR DEVELOPMENT ENGINEER, National Control Centre London/Wokingham

- Undertook pivotal role in Project teams who developed and delivered computer Generation scheduling tools and supporting data management systems from first use of such facilities in Control through their rebuild for Privatisation in 1990, overhaul then replacement for the New Trading Arrangements in 2001.
- Acted as focus and expert on metering requirements to support modelling and co-ordinated the large number of base data updates required as a result of the extensive Generation building programme between 1990 and 2000.
- Extensively involved on support of new facilities and diagnostics to ascertain root cause of complex problems within framework of rapidly changing computing techniques.
- Assisted with analysis of trading developments in the European Systems and the impact on logistics of Trading and Operation of the GB to France interconnector.
- Retired in 2003 then returned in 2004-5 to assist with issues on registration, representation and modelling of the Scottish power system and generating plant.

1977-1981 ENERGY MODELLING ENGINEER, System Operation, London

- Used and developed techniques and tools for Generation modelling.
- Planned Fuel Allocation and prepared Merit Order.

1975-1977 GENERATION COSTING ENGINEER, System Operation, National Control Centre, London

- Planned Power plant Operating schedules from real time up to 20 hours ahead.
- Worked on Day ahead Generation Planning and Demand Forecasting (including computerisation) and SCADA system Hardware support.

1973-1975 CONTROL ENGINEER, Croydon Power Station

- Operating highly flexible Coal fired and Gas Turbine Units.

1968-1973 STUDENT APPRENTICE

- Trained in all aspects of Generating Station and Transmission System Operation and Maintenance. Alternating periods at University and with the company.

EDUCATION, TRAINING AND QUALIFICATIONS

1969-1973 City University, London
BSc Hons in Electrical and Electronic Engineering

1966-1968 GCE 'A' Level in 2 subjects and 'O' Level in 5 subjects

2003-2005 Gained European Computer Driving Licence and completed advanced IT courses in Microsoft Excel, Access and Project.

PERSONAL INFORMATION

Married; Car owner with full clean driving licence;
Interests include Travel, Dinghy Sailing, Amateur Radio, History and DIY.