



JEFF THONG PRINCIPAL CONSULTANT

Executive MBA
Queensland University of Technology

Bachelor of Engineering (Electrical)
University of Queensland

MAIE, MIEAust, RPEQ

PRIOR PROFESSIONAL HISTORY

- 2013 - present Principal Consultant, Oakley Greenwood Pty Ltd
- 2011 - present Director, Energy Global Pty Ltd
- 2012 - 2013 Director, QNT Gas Pipeline Pty Ltd
- 2012 - 2013 Director, Balance Power and Gas Pty Ltd
- 2007 - 2011 Manager Business Development, Energy Developments Limited
- 2005 - 2007 Business Development Manager, Energex Limited
- 2003 - 2005 Senior Electrical Engineer, WSP Lincolne Scott
- 1998 - 2003 Manager, Marketing and Resource Development, Kaer Pte Ltd, Singapore
- 1995 - 1998 Site Engineer, Bescon Consulting Engineers Pte Ltd, Brunei
- 1992 - 1995 Engineer, Ewbank Preece Engineers and Kinhill Tan, Singapore
- 1991 - 1992 Engineer, Bristol Digital Systems

OVERVIEW

Jeff provides specialist advice to clients on infrastructure, energy markets, data research, commercial modelling, commercial analysis, project feasibility. He has a proven track record of securing new business and client continuity.

Jeff has over 20 years' experience in Australia and Southeast Asia.

Recent assignments include:

- The Northern Territory Electricity Market design support, technical advice to the NT Government on legacy ancillary services unbundling, 50% renewable policy impact assessment and the transitional interim market implementation from a utility based market to a transparent trading market with mentoring from Mr G H Thorpe.
- Gas supply and price stakeholder and consumer impact analysis for the Tasmanian Energy Security Taskforce.
- Market identification and development of industrial offtake and commercial modelling of virtual electricity supply arrangements for a large scale solar PV developer in QLD and NSW.

- Commercial and technical options study and recontracting strategy of a long term remote gas-fuelled power station with renewable energy penetration integration.

Prior to joining OGW, Jeff held several directorships and executive management positions. Some project highlights include:

- Greenfield and brownfield biomass, gas and diesel generation, domestic LNG and CNG transport business development for mines, remote communities and utilities in NSW, QLD, NT, SA and WA. Successfully secured exclusivity and major brownfield organic growth and contract extensions.
- Developed the successful business case for one of the first commercial district cooling systems in Australia at the Springfield University Campus.
- Energy performance contracting and benchmark built environment energy consumption data analysis at major hospitals, hotels, commercial and industrial facilities throughout Southeast Asia. Nominated by the Singapore Building and Construction Authority as the inaugural Chairperson for the Singapore Industry Committee for Energy Efficiency.
- Construction management, services design, site engineering, project and contract management for the Four Seasons Hotel Singapore, Royal Aircraft Hangar Brunei and Royal Residence 18 Brunei.

RELEVANT EXPERIENCE

Energy market design

- Jeff and G H Thorpe provide technical advisory to the NT Government for the design and pre-implementation development of the interim Northern Territory electricity market (I-NTEM) which started in May 2015. Jeff, under direction from G H Thorpe, has developed practical experience in whole of electricity market design from first principles and analytical application of trading, dispatch, and capacity mechanism components. The project is ongoing.
- Jeff and G H Thorpe completed the Northern Territory Utilities Commission Wholesale Generation Market Review. Jeff was in a supporting role to G H Thorpe. [Report available on the Utilities Commission website.](#)

Renewable integration and penetration analysis

- Jeff and G H Thorpe provided advice to the NT Government on the impact and consequence of implementation of the government's 50% renewable energy strategy.
- Jeff and A Rich advised a major remote mine counterparty on the commercial and technical impact and consequence of integration of renewable generation into an existing remote, islanded gas and diesel power station.

Energy market research and analysis

- Jeff provided research and analysis for a major mining counterparty on drivers of wholesale electricity prices in east coast Australia which pre-defined the futures market. The client could use the analysis to mitigate its exposure to timing and conditions of procurement.
- Jeff provided the review of east coast gas markets, gas reserves, historic and forecast drilling schedules, commodity price risk analysis to inform a private equity-backed potential acquisition and strategic market entry into Queensland.

- Jeff was part of the team which delivered the [Gas Price Trends Review](#) commissioned by the Commonwealth Department of Industry, Innovation and Science. The report was the first detailed review of its kind in Australia and fed data into the Australian Consumer and Competition Council's [East Coast Gas Inquiry](#).
- Gas supply and price stakeholder and consumer impact analysis for the Tasmanian Energy Security Taskforce.
- Market identification and development of industrial offtake and commercial modelling of virtual electricity supply arrangements for a large scale solar PV developer in QLD and NSW.

Energy delivery options studies

- Development business cases, commercial structure and board presentation for greenfield off-grid power stations, coal mine methane, brownfield contract extensions, gas commercialisation (CNG, LNG, Power, Pipeline, CMM), carbon abatement and renewable technologies with counterparties to Energy Developments Limited including BHP Billiton, Peabody Energy, Macarthur Coal, Xstrata Zinc, Minmetals Group, Centennial Coal, Vale and Incitec Pivot.
- Successful tender bids for gas rights to underground coal mines and exclusive negotiating party status for power station acquisitions enabling competitive advantage and definition of client's core needs.
- Delivered concept stage studies for grid supply options, connection studies, utility connection applications, negotiations and project management with Ergon, Energex, Powerlink and Ausgrid.

Project development and implementation

- Jeff was the initial developer of the project now known as the Northern Gas Pipeline being developed by Jemena at a cost of circa A\$800M. The first business case iteration emerged when Copperstring did not proceed effectively quarantining the region to a single fuel source. The project arbitrated against escalating gas prices and supply uncertainty in the east coast gas markets. Jeff developed the underpinned by support from a consortium of foundation major energy user beneficiaries and commitment from conventional and unconventional gas producers and explorers for 2018/2020 supply. The opportunity was progressed by APA and the NT Government until Jemena became the successful proponent.
- Jeff developed, negotiated, closed and delivered two innovative and opportunistic value accretive network support agreements off the Moranbah North 45MW coal mine gas power station (Ergon Energy franchise area) and Lucas Heights 21MW landfill gas power station (Energy Australia franchise area) de-risking substation maintenance contingency, fuel supply and summer peak demand respectively.
- Jeff negotiated, closed and delivered high value major contract extension for Energy Developments Limited / Power Water Corporation for the delivery of compressed natural gas from Alice Springs to Yulara Power Station.
- Jeff was the Project Director for the chilled water benchmarking study of major commercial facilities in the Shenton Way district with the Singapore Energy Market Authority (EMA). The benchmarked data was used by NERA economic consultants to assist the EMA to develop its pricing model, regulatory and competition guidelines for the implementation of the district cooling system now serving the Marina Bay District and operated by Keppel Industries.

- Jeff implemented and managed the Energex Summer Network Support Program in 2006/7 including negotiation of network support payments and access to host sites to embed generation into the network between November and March. The project included analysis and selection of up to 20 network connection points, fault studies, connection studies, mobilisation and procurement of generation, coordination and responsibility for fail safe operation on demand from the Control Room.

Commercial analysis

- Jeff and A Rich supported a Lead-Zinc-Silver mining major with the development of a recontracting options strategy and execution of a long-term offtake agreement with one of multiple independent power producers (IPP) down-selected from a procurement process based on a matrix of client needs including commercial value modelling, analysis and technical performance.
- Jeff and J Snow provided technical and commercial re-analysis and commercial model development for multiple remote mine power stations in WA defining the value of energy delivery options for gas pipeline, LNG, CNG, diesel and grid with comparative economics to enable the client to make a capex (circa) \$200m decision based on future fuel supply risk sensitivities and commercial benefit.
- Jeff, J Snow and A Rich provided a complete market definition, path to market analysis, risk and commercial model development for a major underground waste coal mine gas to power and third-party gas sales in an off balance sheet procurement scenario and net back gas valuation to inform the investment committee's decision to proceed with market test for commercialisation of the mine's incidental coal seam gas.
- Jeff has negotiated, closed and delivered high value major contract extensions and power station expansions for Energy Developments Limited / BHP Billiton.
- Jeff developed, negotiated, closed and delivered two innovative and opportunistic value accretive network support agreements off the Moranbah North 45MW coal mine gas power station (Ergon Energy franchise area) and Lucas Heights 21MW landfill gas power station (Energy Australia franchise area) de-risking substation maintenance contingency, fuel supply and summer peak demand respectively. Contract value \$400,000.
- Jeff negotiated, closed and delivered high value major contract extension for Energy Developments Limited / Power Water Corporation for the delivery of compressed natural gas from Alice Springs to Yulara Power Station.

Carbon abatement and emissions management

- Worked with a US-based major coal company to develop fugitive emissions assessments and reporting strategies for carbon abatement and carbon cost reduction in accordance with ACARP protocols for open cut coal mine fugitive emissions and the Clean Energy Act.
- Developed carbon abatement and energy efficiency projects for commercial and industrial operations in Australia and Asia (Singapore, Indonesia, Malaysia, Brunei). Performed and project managed energy audits (level 3) and energy retrofits for major energy users in South East Asia including Asia Pacific Breweries, Parkway Group Hospitals, Hilton Hotel Group, Shangri-La Singapore, Hyatt Jakarta.
- Jeff secured and extended rights to landfill gas and waste coal mine gas to underpin small and medium scale embedded generation projects in east coast Australia for Energex and Energy Developments Limited.

- Set up Singapore's Industry Committee for Energy Efficiency (ICEE) in the early 2000's under the auspice of the Building and Construction Authority (BCA) to regularise protocols, best practice measurement and verification methodologies and ethical practice of energy efficiency companies. Jeff was designated the inaugural Chair of the committee by his industry peers and was nominated to the Board of the Singapore Association for Environmental Companies (SAFEEO) as part of his role.
- Performing state wide (QLD) Business Efficiency Reviews for Ergon Energy customers in government and commercial facilities.
- Design and business case development of Queensland's first commercial district cooling system at the Springfield University Campus.