



ALEX CRUICKSHANK PRINCIPAL CONSULTANT

Master of Business Administration
Bachelor of Science
Diploma in Education
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Member of CIGRE &
Smart Cities Association

OVERVIEW

Prior to joining Oakley Greenwood in 2016, Alex had over 25 years' experience in energy markets within a range of organisations, including a vertically integrated utility, a generator/retailer, a rule making body and government.

Alex has deep experience in market design. He was involved in the initial design examining capacity markets versus energy only markets, network development approaches and access rules. He continued in the developmental role with the rules body (the National Electricity Code Administrator) as Principal Consultant Code Development and oversaw all rules change applications and changes.

Alex then have a brief stint in the Treasury Department in South Australia, providing technical advices as part of the Microeconomic Reform Unit and, in particular, managing a review into the operation of the National Electricity Market in South Australia during a period of system stress.

Alex then joined AGL, then a retailer, and was involved in the market development from a private sector perspective and assisted in the expansion of AGL initially into generation but later into new technologies. He was involved in connection and registration issues for conventional and renewable generation.

Alex has also been active in working to identify new technology, including the market and organisational changes required to exploit it.

Alex is a member of CIGRE, the International Council for Large Electrical Systems, convening the local panel on markets and regulation and is the Australian representative on the related international study committee (Study Committee C5).

During his career, Alex has developed experience in:

- Energy market design and operation;
- Wholesale and Retail energy regulation;
- Due diligence (sale and merger processes);
- Organisational design management processes;
- Emerging Technologies;

RELEVANT EXPERIENCE

Market design

- Alex developed and honed his market design knowledge at ETSA, where he was part of the team that worked on the development of the, then, National Electricity Code. This work continued at Optima Energy (the generation arm of ETSA when it was separated) and then at NECA, where he was Principal Consultant Code development and worked early changes to the Code.
- Alex continued to be involved in market design issues at Treasury, where he was a key part of the review by South Australia into the operation of the National Electricity Market and then at AGL, where he held various roles reviewing and being involved in the development of the NEM and related retail markets.
- Alex chaired the wholesale markets groups of both the National Generator Forum and the Energy Retailers Association of Australia where he led significant aspects of market design on behalf of those organisations. This include a major reworking of the implementation of generator technical standards.
- Since becoming a consultant, Alex has been involved in a number of projects to do with market design, notably the development of rules for the Northern Territory Energy Market and designing an approach for microgrids.

Wholesale and Retail Regulation

- Alex was a member of the AGL regulatory group and for a time the head of the group. He worked on a number of aspects of industry regulation involving state governments, regulators and market bodies. He was active in generation operations and connection, retail operations and new technology implementation.
- During this period, Alex was also a member of numerous working groups and industry bodies, including:
 - National Generator Forum, as chairman of the Wholesale Market Working Group;
 - Energy Retailers Association of Australia, as a board member and chairman of the case studies and regulatory environments for embedded networks/microgrids; and
 - Wholesale Markets Working Group;
 - the Regulatory and Policy Steering Committee of the Smart Grid Smart City trial, a A\$100 million trial of smart grids in Australia;
 - Representing retailers on the Retail Market Executive Committee and the Information Exchange Committee, which oversaw changes to the retail operations of the market operator;
 - Various standing and working groups on embedded networks & multiple trading relationships, demand side response, management of settlement residues, market contract development and prudential matters.

Due Diligence

- Alex was a member of the Board and the final Chairman of GASCOR, the industry owned body that managed the transition of government established gas contracts after the gas privatisation in Victoria. GASCOR managed the contracts and allocated the gas to retailers. During this time Alex was involved in the oversight of GASCOR operations and its eventual voluntary liquidation when its role was complete.

- Alex was involved in the regulatory due diligence of the demerger of AGL into AGL Energy and Alinta. This was a complex merger/demerger, requiring significant due diligence.
- He was also involved in the due diligence activities for various generator and retail purchases by AGL, requiring assessment of regulatory environments, contracts and personnel of target companies.

Organisational design

- Alex was involved in organisation design work, using the Socio-Technical System approach prior to entering the energy industry and continued this work at ETSA initially in the strategic planning group and then as the Manager of Organisational Design. During this work, ETSA was radically redesigned and staffing substantially reduced to allow it to be competitive in the NEM.
- Alex used and trained other staff at ETSA in:
 - project management, decision making and issues analysis using Kepner-Tregoe methods; and
 - management and change facilitation, including quality assurance, using Total Quality Institute methods amongst other approaches.

Emerging technology

- Alex has been involved in the application of demand side response, renewable and emerging technologies since his time at ETSA. More recently he has been the Vice President of Smart Grid Australia, writing papers in support of industry development, including energy market disruption and future technology and is currently a member of the Australian Smart Cities Association.
- Alex was a member of the Victorian Advance Metering Infrastructure Ministerial Advisory Council, the National Smart Meter Steering committee and the Advanced Metering Infrastructure Steering Committee.
- Since becoming a consultant, Alex has worked on projects related to the adoption and integration of new technologies, including:
 - a report and proposal in relation distribution level markets, including designs, operations and an analysis of overseas experience;
 - a forecast of the future development of the energy market in Australia, particularly the likely adoption of new technologies Rules development; and
 - Apart from the memberships noted above, Alex has been involved in key aspects of the Electricity Network Transformation Roadmap as a participant and a contributor.

International (CIGRE) involvement

- Alex has been active in the study of international market and regulatory systems since 1994 when he joined the relevant Australian panel of CIGRE. The International Council for Large Electrical Systems (CIGRE) is a worldwide body, established just after the first world war, which is active in fifty-eight countries and has 14,000 members.
- Alex is currently the Australian representative on the international study committee on markets and regulation (SC C5) and convenes an Australian panel that mirrors the international committee. The Study Committee and the Australian Panel do their work via specific, task-focused working groups that examine specific areas and provide published reports or presentations.

- Working groups that Alex has worked on in the past, including the publications (shown as TB xxx) are:
 - C5.9 Retail Market Competition - Customer Switching, Metering and Load Profiles;
 - C5.12/TB 580 Generator Market Power Mitigation Measures in Electricity Markets;
 - C5.13 Interaction of Markets and Regulatory Actions with Emerging Technology. The results of the WG were published in Electra, the CIGRE journal;
 - C5.15/TB 667 Risk Management in Evolving Regulatory Frameworks;
 - C5.15/TB 658 Default Management in Electricity Markets;
 - C5.17/TB647 Capacity Mechanisms; needs, solutions and state of affairs; and
 - C5.19/TB651 Regulatory Aspects of the Demand Response within Electricity Markets.
- Alex is currently on four working groups:
 - C5.16 Costs of Electric Service, Allocation Methods and Residential Rate Trends, which has included a paper for the Dublin Symposium;
 - C5.23 Wholesale market price caps;
 - C5.24 Exploring the market value of Smart Grid developments; and
 - Joint CIGRE/IEC working group on global electricity interconnection.
- Alex also manages one session of the biennial sessions held by CIGRE, which examines market disturbances from the various member countries, the causes of the disturbances, how they were managed and what can be learned from them for other countries.

PRIOR PROFESSIONAL HISTORY

- 2016 - present Oakley Greenwood Pty Ltd - Principal Consultant
- 2015 - 2016 Alex Cruickshank Consulting - Principal
- 2001 - 2015 AGL - various roles, including Manager NEM development, Manager Wholesale Markets Regulation, Head of Energy Regulation
- 2001- 2001 SA Treasury (Micro-economic reform unit)
- 1998 - 2000 National Electricity Code Administrator - Principal Consultant Code Development
- 1997 - 1998 Optima Energy - Senior Analyst Market Liaison
- 1989 - 1997 ETSA - various roles, including Principal Training Officer, Manager Strategic Planning, Manager Organisational Development, Executive Office National Electricity Market Project.

OTHER PUBLICATIONS

- Smart Grid Australia
 - "Towards Australia's Energy Future, 2014 Update", Smart Grid Australia 2014
 - "The Five Disrupters - Report on the 2015 Seminar", Smart Grid Australia, 2015