Energising our Future through Innovation, Technological Solutions and Human Adaptation

Meeting with the Hon Ian Macfarlane MP
Minister for Industry
Boardroom 3 Hotel Realm, Canberra
2nd December, 2014  11.00 – 11.45am (including morning tea)

AGENDA

11.00 – Welcome
Christopher Goldsworthy
Asst. Executive Director, Business/Higher Education Round Table

11.05 – Introduction
Prof Vassilios Agelidis
Director, Australian Energy Research Institute, UNSW

11.10 – the Hon Ian Macfarlane MP
Minister for Industry

11.20 – Stakeholder Comments
Stephen Durkin, CEO, Engineers Australia
Dr Adi Paterson, CEO, ANSTO

11.30 – Open Discussion

11.40 – Closing Remarks and Next Steps
Dr Sharon Winocur
Executive Director, Business/Higher Education Round Table

11.45 – Meeting closed

One of the challenges facing Australia is, what is the energy mix that is sustainable, economical and deliverable. Such a mix is required to meet the changing economic paradigm in the years ahead. Additionally, with a globally competitive market there is constant pressure for the energy sector to evolve.

In practical terms, we need to articulate our long term energy position. This encompassing increased R&D investment, capital provision for an energy innovation ecosystem, energy portfolio management, and energy intensity reduction through the intelligent management of our energy resources and end-user demands.

The context for dialogue is Australia’s profile as a major commodity supplier, high energy user and carbon emitter. Australia has the geological, geographical and technological assets. As such the pursuit of an advanced technology platform is critical, resulting in business strategies and government policies that facilitate a market opportunity enabling an expanded product offering to domestic and international customers.

Business, government and universities need to put in place mechanisms to ensure we anticipate our needs and know how to meet them.

This meeting will be an opportunity to identify a pathway for future dialogue with thought leaders from business, industry, higher education, research, professional associations and government. We hope that the outcome will be some innovative initiatives for consideration and practical proposals for implementation by the various stakeholders.
Energising our Future – delivering a mixed energy resource platform

**Smart Energy**
Sustainable, Economical and Secure

- **Collaboration**
  Translating IP and R&D which impacts end-user behaviour, energy mix, export performance and sector transformation

- **Reform**
  Sector development and market dynamics impacted by incumbency, energy productivity and capital allocation

- **Opportunity**
  Developing business models which link demand aggregation to multifactor productivity and competitiveness

There are a number of open-ended issues for consideration including:

- What is the right energy mix solution for our future needs?
- Opportunity cost and social cost of maintaining status quo? Challenge conventional wisdom and get people to think differently about the future in Australia and the region.
- The influence of policy settings on market participants? Link national and international research and policy to help inform future decision making.
- Trends migrating to best practice – industry adaptation: Compare what works and what needs to be improved by sharing good national and international practice.
- Latest projects in R&D. Value-add to Australia’s high quality IP and R&D.
- Perspectives on developing new business models, matching supply and demand with economic development imperatives. Build upon the efficient market theory to lessen information asymmetry, improve transparency and align the cost curve with end-user demand.
- Research into sustainable energy infrastructure. Asset recycling and the allocation of capital.
- Societal adaptation: managing demand characteristics.
- The role of energy provision in urban design.
Vassilios G. Agelidis is the Director of the Australian Energy Research Institute (AERI) and Professor of Power Engineering with the School of Electrical Engineering and Telecommunications at the University of New South Wales (UNSW).

Prior to his current appointment, he worked for Curtin University (1993-1999) and Murdoch University (2005-2006) in Western Australia; the University of Glasgow, UK (2000-2004); and the University of Sydney (2007-2010).

Vassilios holds a PhD degree (Curtin University, Western Australia), a Master of Applied Science (Concordia, Canada), a Bachelor of Engineering Degree (Democritus University, Greece) all in Electrical Engineering and a Graduate Diploma of Business Administration (Curtin Graduate School of Business, WA).

He is one of Australia's leading authorities on electricity grid technologies including the integration of renewables, power engineering and energy conversion technologies. In 2004, Dr Agelidis received the UK's most prestigious research fellowship for a young researcher, the Advanced Research Fellowship from the Engineering and Physical Sciences Research Council.

Prof Mark Hoffman – Faculty of Engineering, University of New South Wales

Professor Hoffman is the incoming Dean of Engineering at the University of New South Wales. Previously he was Pro Vice-Chancellor Research. From 2007-12 Prof Hoffman was Head of the School of Materials Science & Engineering at the University. He was also Associate Dean Research of the Faculty of Science. He was Presiding Member of the University’s Committee on Research from 2010-13. He holds a BE (1989) and PhD (1994) from the University of Sydney and Masters of Business and Technology from the University of New South Wales.

Prof Mark Hoffman’s research passion is designing new materials which have high levels of structural reliability and integrity – and how to predict their operation lifetimes.

Prof Hoffman is currently a Research Program Leader for the ARC Centre of Excellence in Design in Light Metals, Fellow of the Institute of Engineers Australia and an Associate Editor of the Journal of the American Ceramic Society. He was a Director of the International Congress on Fracture from 2009-13.

George Maltabarow – Australian Energy Research Institute, University of New South Wales

George Maltabarow is an energy specialist and experienced chief executive, having managed major capital programmes, developed strategies for energy markets and spearheaded technical innovation.

He is the Chairman of the Australian Energy Research Institute’s Industry Advisory Committee, President of the Electrical and Information Engineering Foundation at the University of Sydney, where he is also an Adjunct Professor in the School of Electrical Engineering.

From 2004 to 2012, Mr Maltabarow was the managing director of Ausgrid (formerly Energy Australia), which operates the largest transmission and distribution network in Australia. Prior to that, he was an executive director of the NSW Treasury, with oversight of agencies including rail, energy, water, ports and property. He holds bachelors degrees in electrical engineering and professional economics.

George was commissioned by the Minister for Planning and Infrastructure to undertake a review of some aspects of building regulation, and was appointed President of the NSW Building Professionals Board in 2013.

Dr Adi Paterson – ANSTO

Dr Adrian (Adi) Paterson was appointment as Chief Executive Officer of ANSTO on 1 March 2009.

Formerly General Manager of Business Development and Operations at the Pebble Bed Modular Reactor Company in South Africa, Dr Paterson holds a BSc in Chemistry and a PhD in Engineering from the University of Cape Town.

He is a Member of the Academy of Science of South Africa and the South African Academy of Engineering. He is also past Chair of the South Africa Innovation Fund and was a member of the National Advisory Council on Innovation.

From 1984 to 2001, Dr Paterson worked at the Council for Scientific and Industrial Research (South Africa’s equivalent to CSIRO), rising to the position of Executive Vice President and Chief Information Officer.

From 2001 to 2006, Dr Paterson worked at the Department of Science and Technology. He was a key architect of the National Research and Development Strategy.

Throughout his career, his focus has been on the interface between public spending and practical innovations that create wealth and quality of life – putting science and technology to work.

In 2009 Dr Paterson became a Fellow of the Australian Academy of Technological Sciences and Engineering.
Stephen Durkin - Engineers Australia

Stephen Durkin is the Chief Executive Officer of Engineers Australia. Stephen is a civil engineer and a former senior executive with the National Australia Bank. Stephen holds university qualifications in engineering and also holds an MBA. Along with his role as CEO of Engineers Australia, Stephen sits on the board of technical publishing company Engineers Media, and is also a board member of education and training provider Engineering Education Australia. Stephen is based in Melbourne.

Brent Jackson - Engineers Australia

Brent Jackson is the Executive General Manager of Public Affairs and Marketing for Engineers Australia. Brent is Canberra-based, and via his national management team is responsible for the government relations, media, marketing, sponsorship, and stakeholder communications activities of Engineers Australia. Brent holds degrees in psychology, commerce, and strategic management, including a PhD from the Australian National University. Brent is a non-executive director of the Business/Higher Education Roundtable, the Australian Construction Industry Forum, and the Australian Design Alliance.

Tim Fawcett – Cisco Systems ANZ

Tim is the General Manager Corporate and Government Affairs for Cisco Systems Australia and is Chairman of Cisco’s ANZ Social Innovation and Corporate Social Responsibility Committee. As part of Cisco’s Senior Leadership Team, Tim leads Cisco’s external engagement on productivity, innovation, workforce participation, the digital economy, public administration, infrastructure, sustainability and the environment. Tim represented Cisco on the Australian Government’s Advisory Panel on Teleworking and is an occasional public speaker and media commentator. Before joining Cisco, Tim led a strategic government relations and market research consultancy and has over 20 years of federal and state public and private sector experience. Tim is married with three children and is a Director of the not-for-profit children’s charity, Make a Difference (MAD) Foundation and an Ambassador to the Snowdome Foundation. Tim holds a Masters of Public Policy – Australian National University, Bachelor of Arts (Honours) – La Trobe University and Deans Honour List – University of California

Dr Sharon Winocur – Business/Higher Education Round Table

Dr Winocur joined B/HERT as Executive Director in August 2008 after previously having held senior executive positions in the Victorian and Queensland Public Service following a successful university career as both an academic and an administrator. Following an academic career in psychology, Dr Winocur established the first Office of Equal Opportunity and UQ-Link at the University of Queensland. UQ-Link, a specialist program for academically able students from low SES backgrounds who demonstrated great potential is still operating over 20 years later. Dr Winocur joined the Queensland Public Service in 1991 and the Victorian Public Service in 2004. During her public service career, Dr Winocur held various senior executive positions including Director of Equity, Human Resources and Industrial Relations. She also maintained active research programs during this time through the ARC Linkage and Discovery grants programs.

Christopher Goldsworthy – Business/Higher Education Round Table

Christopher is the Asst. Executive Director of the Business/Higher Education Round Table, a position he has held since 2003. He also currently serves as a Non-executive Director of The Australian Ballet and Member of the Cultural Sector Advisory Committee, Innovation & Business Skills Australia. Previously, Non-executive Director of The Australian National Memorial Theatre; General Manager, DMA Clinical Pilates P/L; Manager Business & Strategy, the NZ Schools of Dance & Drama; Vice-President, Agilitas USA; and Company Manager, Essgee Entertainment. He is a member of the Australian Institute of Company Directors, and holds Master’s degrees in Business Administration and Business Law, both from Bond University.
Organisation Profiles

Business/Higher Education Round Table
The mission of the Business/Higher Education Round Table is to pursue policies and collaboration initiatives that will advance the goals and improve the performance of business and tertiary education. B/HERT was established in 1990 and is the only national organisation with members who are leaders in tertiary education, business, industry and research institutions. Connectivity across the sectors is important because knowledge exchange and cross-sector collaboration are the critical drivers for a knowledge and services economy. B/HERT has established strategic partnerships in the development of programmes that advance education, research and innovation. B/HERT adds value through its unique membership, its engagement on policy issues with government and its commitment to better business/education outcomes through collaboration.

Australian Energy Research Institute, University of New South Wales
The Institute is a sustainable energy think tank that focuses on transforming energy research into practical applications. The Institute builds upon 30 years of energy research leadership at the University of New South Wales (UNSW) and has launched coordinated strategies to address every level of the energy challenge. The vision of this energy research institute is to become an internationally recognized model of collaborative interaction between academia, industry, business and community to transform thinking and provide long-term solutions for the move towards a truly sustainable energy infrastructure. Our focus is directed towards key areas such as renewable and sustainable energy systems, the creation of smart electricity grids, and the development of alternative fuels. We know that unsustainable sources of energy must be replaced sooner or later. Our goal is to tackle complex energy issues from different angles working with experts from diverse backgrounds, to find solutions to the big questions.

Engineers Australia
Engineers Australia is the peak body for the engineering profession in Australia. With over 100,000 members Australia-wide. Engineers Australia accredits all university engineering courses in Australia and audits them against internationally benchmarked standards. The organisation's main service to members is through its Chartered Professional Engineer programme that provides a benchmark for those working as engineering professionals. Chartered status is recognised worldwide through international accords that set competency standards for professional practice. Engineers Australia has representation in every state and territory in Australia and across four overseas chapters in Hong Kong, Malaysia, Singapore and the United Kingdom. Engineers Australia is the second largest professional association in Australia and among the largest engineering organisations of its type in the world.

ANSTO
ANSTO's general purpose is prescribed by the Australian Nuclear Science and Technology Organisation Act 1987 and translated into action through the corporate drivers of vision, mission and strategic priorities. The Australian Nuclear Science and Technology Organisation (ANSTO) is a corporate Commonwealth entity operating under Public Governance, Performance and Accountability Act 2013, and is an agency within the portfolio of the Commonwealth Minister for Industry. ANSTO is responsible for delivering specialised advice, scientific services and products to government, industry, academia and other research organisations. It does so through the development of new knowledge, delivery of quality services and support for business opportunities.

Cisco Systems ANZ
Cisco (NASDAQ: CSCO) is the worldwide leader in IT that helps companies seize the opportunities of tomorrow by proving that amazing things can happen when you connect the previously unconnected. At Cisco customers come first and an integral part of our DNA is creating long-lasting customer partnerships and working with them to identify their needs and provide solutions that support their success. The concept of solutions being driven to address specific customer challenges has been with Cisco since its inception. Husband and wife Len Bosack and Sandy Lerner, both working for Stanford University, wanted to email each other from their respective offices located in different buildings but were unable to due to technological shortcomings. A technology had to be invented to deal with disparate local area protocols; and as a result of solving their challenge - the multi-protocol router was born. Since then Cisco has shaped the future of the Internet by creating unprecedented value and opportunity for our customers, employees, investors and ecosystem partners and has become the worldwide leader in networking - transforming how people connect, communicate and collaborate.
Making the Connection
Driving collaboration across business, industry and tertiary education