

3&4 April, 2014
University of Technology Sydney, Australia

# Thursday, 3rd April, 2014

7:30 am - 8:30 am

8:30 am - 10:00 am

10:00 am - 10:30 am

10:30 am - 12:00 pm

#### Registration with coffee & tea on arrival

# Energy Productivity in the U.S. and Australia - Shared Challenges and Opportunities

Kateri Callahan, President, U.S. Alliance to Save Energy

Maya Stuart-Fox, Assistant Secretary, Emissions Reduction Fund Taskforce at the Department of the Environment Heather Zichal, Lead U.S. White House Advisor on Energy and Climate Change (2009-2013)

The Hon. Anthony J Roberts MA (Comms) MP, Minister for Resources and Energy, and Special Minister of State Adjunct Prof. Robert Hill, U.S. Studies Centre

Chair: Jonathan Jutsen, Chairman, A2SE

The U.S. Government has adopted a goal of doubling energy productivity by 2030. What does this mean and is it achievable? Is this a precedent that Australia should follow? Learn from key members of the U.S. team that developed the plan and persuaded the U.S. Government. Engage with leading Australian policy makers on the current state of energy productivity. The opening plenary will set the tone for discussion and sharing of experiences and ideas throughout the Forum.

# **Morning Tea**

# Industrial energy productivity

Peter Burn, Director - Public Policy, Australian Industry Group

Paul Orton, Director, Policy and Advocacy, NSW Business Communication, Knauf Insulation

# Residential buildings energy efficiency

Adjunct Prof. Alan Pears, RMIT University Barry Lynham, Group Director of Strategy and Communication, Knauf Insulation 12:00 pm - 1:00 pm

1:00 pm - 2:30 pm

2:30 pm - 3:00 pm

3:00 pm - 4:30 pm

Chamber

Lunch

Terry O'Brien, Chair of Australian Food and Grocery Council, Managing Director of Simplot Ltd. Stefan Preuss, Director of Resource Sustainability, Sustainability Victoria

Chair: Jonathan Jutsen, Chairman, A2SE

Manufacturing accounts for about 8% of Australia's GDP and employment and half of non-transport energy use. What can manufacturers and construction companies do to increase productivity? What stands in their way? How can government help? Is energy reporting and auditing a help or a hindrance? How can energy management create savings for households? What is the role of energy codes, a competitive edge? How can energy utilities work with their industrial customers for mutual benefit?

Optimising distributed generation & energy storage

Muriel Watt, President, Australian PV Institutute Dr. Dan Arvizu, Director and CEO, U.S. National Renewable Energy Laboratory (NREL) Kaia Hodge, Manager of Liveable City Programs, Sydney Water

Chair: Dr Alan Broadfoot, Director, Newcastle Institute for Energy and Resources

The advent of affordable solar power is transforming the their own power stations. More businesses and communities are also looking to generate their own power to improve energy productivity? How do we cut energy from solar, cogeneration, trigeneration and other technologies. How will the move to local generation and storage change the way we use energy? How can these trends support energy productivity? What does this mean for the traditional centralised electricity providers?

Afternoon Tea

**Vehicle Efficiency and Electric Vehicles** Graham Blight, Director, NRMA

Cecille Weldon, Head of Sustainable Real Estate, LJ Hooker Professor Deo Prasad, CEO, CRC for Low Carbon Living

Chair: Gene McGlynn, Department of Industry

Homes account for approximately one third of nontransport energy consumption in Australia, but there is a wide range of energy use in homes and zero net energy homes that are becoming more common. In 2003, the National Framework on Energy Efficiency estimated that 70% of energy use in homes could be saved cost effectively. How do we unlock these massive energy ratings and standards? How can homes become more efficient and productive?

Commercial sector energy productivity

Peter Verwer, CEO, Property Council of Australia Clover Moore, Lord Mayor of Sydney Romily Madew, CEO, Green Building Council of Australia Rob Murray-Leach, CEO, Energy Efficiency Council

Patrick Greene, Business Development Manager, Ingenero Chair: Tom Roper, President, Australian Sustainable Built Environment Council (ASBEC)

The services sector now comprises two thirds of GDP and 86% of employment. Substantial productivity gains can accrue from comprehensive energy efficiency energy sector. More than one million households now own improvements as well as individual efficiency components. What improvements can be made to commercial buildings bills for hospitals, accommodation and education?

Financing Energy Productivity

Jillian Broadbent AO, Chair of Clean Energy Finance

4:30 pm - 6:00 pm

6:00 pm - 7:00 pm

7:00 pm - 10:00 pm

Riccardo Pagliarella, Environmental Policy Manager, Toyota Scott Ferraro, Engagement Project Manager, ClimateWorks Dr Howard Lovatt, Team Leader Electrical Machines, **CSIRO** 

Chair: Mark McKenzie, GM, Victorian Automobiles Chamber of Commerce

Vehicle efficiency standards have be instrumental in reducing US reliance on imported oil, while Australia has no comparable standards. Is it time for Australia to adopt vehicle standards? Or should Australia dispense with incremental reform and embrace next generation electric vehicles that are typically three times more efficient than petrol vehicles? And how can Australia tap the productivity savings? What are the specific barriers to financing energy synergies between electric vehicles, distributed generation productivity improvements and how have they been and storage, demand management and energy efficiency? overcome? Are new tools and institutions required? What

Corporation (CEFC) and former Member of the Board of the Reserve Bank of Australia on securing CEFC finance Tanya Cox, Executive General Manager Property Services and Chief Operating Officer, DEXUS Property Group Dr Nicholas Regan, Technical Manager - Australia International Division, COFELY Australia Pty Limited & GDF SUEZ Energy Services Brian Innes, Group General Manager, Energetics

Chair: Brian Morris, Country Manager, Energy and Sustainability Services, Schneider Electric

Improving energy productivity offers very attractive returns on investment, but often does not fit into conventional financing models. How can we bring financial capital together with the enormous potential for efficiency is the role of changing internal business culture and practice in unlocking the opportunities?

#### **Building knowledge and engagement in Energy Productivity**

Dr. Dan Arvizu, Director and CEO, U.S. National Renewable Energy Laboratory (NREL) Dr. Alex Wonhas, Director, CSIRO's Energy Flagship Prof. Stuart White, Director, Institute of Sustainable Futures, UTS Skip Laitner, Visiting Fellow, American Council for an Energy Efficiency Economy Prof. Ken Baldwin, Director, Energy Change Institute, ANU

Chair: Chris Dunstan, CEO, A2SE

To transform Australia's energy future and productivity, we need to invest in research, knowledge, analysis and engagement. This session considers both how to create and deliver these resources and proposals for the next steps: an Energy Productivity Roadmap, its plans, goals and key players and an Australian Centre for Energy Productivity.

# **Drinks and Networking**

# **Dinner. Aerial UTS Function Centre**

John Hewson AM, Economist, Business Leader, former Federal Liberal Party Leader

MC: Jon Jutsen. Chair. A2SE

7:30 am - 8:30 am

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12:00 pm - 1:00 pm

1:00 pm - 2:30 pm

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#### Policy Tools for Doubling Energy Productivity

Connie Hedegaard, Commission for Climate Action, European Commission Heather Zichal, Lead U.S. White House Advisor on Energy and Climate Change (2009-2013) Martin Hoffman, Deputy Secretary for Energy, Department of Industry Anna Skarbek, Executive Director, ClimateWorks Chris Dunstan, CEO, A2SE

Chair: Jonathan Jutsen, Chairman, A2SE

What are the key policy tools for boosting energy productivity? The session discusses world's best practice in energy efficiency and productivity governance, and how policy options can be tailored to the current political and economic circumstances of different countries.

#### Morning Tea

#### Smart appliances, smart consumers

Adam Welsh, Senior Director of Regulatory Affairs, APAC, Tim Raimond, Transport for NSW Opower David Walker, Department of Industry Dr Nina Hall, Social Scientist and Project Leader, CSIRO Ian Forte, Regulatory Affairs Manager, Electrolux (Australia)

Chair: George Wlikenfeld, Director, George Wilkenfeld & Associates

Appliance energy efficiency standards and labeling have been among the great success stories of energy productivity in Australia. Smart policy has delivered billions even greater benefits. But the key is thoughtful urban of dollars in savings for Australian consumers. What are the next steps for smarter more efficient appliances? How places at the right price. Australia's car dependent cities but also peak demand? What is the role energy management devices and software in empowering consumers to use energy more efficiently? How do we improve and simplify the interface between appliance and consumers? What is the role of education, information and behaviour change?

#### Lunch

### **Energy market productivity & DM**

# Freight transport

# Efficient public transport and urban design

Dr Garry Glazebrook, University of Technology Dr. Peter Rickwood, Institute for Sustainable Futures, UTS Assoc. Prof Rod Simpson, Urban Design Director, University of Sydney

Chair: Prof Stuart White, Director, Institute for Sustainable **Futures** 

While generally more efficient than private vehicles, urban public transport's other productivity benefits such as reduced traffic congestion and increased amenity can offer design to provide the right transport options in the right can appliances and equipment reduce not just energy use have often failed to do this. How do we unlock the value of more efficient transit options in our cities? How can we encourage better urban transport infrastructure and mode choices?

2:30 pm - 2:50 pm

2:50 pm - 4:20 pm

Paul Smith, CEO, Australian Energy Market Commission Paul Troughton, EnerNOC

Ric Brazzale, Managing Director, Green Energy Trading Lucy Carter, Energy Fellow, Grattan Institute

Chair: David Green, Managing Director, Energy Futures Australia

More than 10% of our electricity supply capacity is used less than 1% of the time but contributes significantly to the Currently, road freight accounts for almost 80% of total cost of supply. The AEMC estimated that greater demand energy consumption within freight transport. Rail, on the \$11.8 billion over the next ten years. Are current reform packages effective and sufficient? What difference will opening up the energy/demand market make to the generation sector's productivity? Will it work? What else needs to be done?

#### Afternoon Tea

Electricity transmission and distribution productivity Mining and agriculture energy productivity

Omar Siddiqui, Senior Technical Executive, Energy Utilization, Electric Power Research Institute Chris Dunstan, CEO, A2SE Warwick Anderson, General Manager, Network Regulation, Mr Michael Scott, Technical Specialist, CRC Ore Australian Energy Regulator John Bradley, CEO, Energy Network Association

Chair: Judy Anderson, President, Smart Grid Australia

The cost of new electricity network infrastructure has been the biggest contributor to rising electricity prices over the past seven years. According to the Productivity Commission, more efficient network investment could save population. Given the boom-bust nature of the industry, consumers between \$2.2 and \$3.8 billion. Meanwhile. electricity networks are facing major technological change opportunities for energy efficiency are huge, what could be from the impact of energy efficiency and decentralised energy, particularly solar PV and the decline in energy consumption since 2008. Is this a recipe for higher energy particularly in the form of diesel, which makes the sector, charges or stranded assets? How do networks respond to which runs on low margins, even more vulnerable to rising a suddenly unpredictable future, including potential disconnection + impact of electric vehicles and energy storage?

Mark McKenzie, GM, Victorian Automobiles Chamber of Commerce

Frank Muller, Former Commissioner, National Transport Commission

Jordan Groeneveld, Energy Analyst, Aurizon David Coleman, Ron Finemore Transport

Chair: Kait Gotham, Pitt and Sherry/Rare Consulting

management could result in likely savings of \$4.3 billion to other hand, was less than 10%. What are the opportunities in shifting from road to rail? What does the prospect of peak oil and rising oil prices mean for our freight choices? How do we capture the benefits? What would it take to provide infrastructure? How do we ensure the flexibility of road with the dependability of rail?

David Eyre, General Manager, Research & Development, **NSW Farmers' Association** Brendan Pearson, CEO, Minerals Council of Australia Dr Damien Giurco, UTS Mary Stewart, CEEC Board member and General Manager, Consulting at Energetics

Chair: Michael Smith, ANU

Mining is one of the most energy intensive industries, consuming 9% of energy while only employing 2% of the long-term investment can be challenging. While done to persuade these major energy users of the merits of changing? Agriculture is also a significant energy user, energy costs. What is the role of solar PV and EVs in this sector?

4:20 pm - 4:50 pm

# **Doubling Energy Productivity - The Way Ahead**

Kateri Callahan, President, U.S. Alliance to Save Energy Jonathan Jutsen, Executive Director, Energetics

Chair: Chris Dunstan, CEO, A2SE

Wrap up of what we have learned about Australia's opportunities for doubling energy productivity, challenges for implementation, attitude of our stake-holders, and how do we marshall resources to drive a similar program to the USA. What have we learned from the US specialists about the best way to proceed?