

ENERGY FOR THE FUTURE22nd – 23rd August at
Hyatt Regency PerthGovernment of **Western Australia**
Department of **Treasury****Day 1 Wednesday 22nd of August**

8:00am	Registration
8:45am	Introduction by Sally McMahon, Conference MC
8:50am	Welcome to Country by Barry McGuire
9:00am	Conference Opening by Louis Kent, Chair of Perth's AIE Branch
9:10am	Minister's Address Speaker: Hon Ben Wyatt MLA, Treasurer; Minister for Finance; Energy; Aboriginal Affairs
Frameworks in Energy Transformation	
9:40am	International Keynote Speaker Professor Graciela Chichilnisky, Professor Economics and Statistics, Director CCRM, Columbia University Synopsis: Professor Graciela Chichilnisky's presentation will cover the role of frameworks to guide energy transition in Australia, which has been characterised by vacillation on carbon policy. There is a missing framework in Australia's energy markets that impedes the orderly adoption of the carbon neutral and carbon removal technologies needed to forestall the worst catastrophic risks of climate change. The missing framework has also stalled investment in conventional generators at a time when consumers are taking matters into their own hands and investing heavily in distributed generation outside energy markets. The presentation will explore the upside of integrating frameworks into energy markets in Europe and the USA.
'A Tightening Global LNG Market – Opportunities for Western Australia?'	
10:10am	International Keynote Speaker Gavin Thompson, Head of Asia Pacific Research, Wood Mackenzie Synopsis: Stronger than anticipated demand for LNG in Asia Pacific is changing the shape and duration of the long-anticipated supply glut. China has led this growth, while Europe's burgeoning import dependency will soon result in more LNG imports. As a result, the prospect of LNG oversupply between 2019 and 2021 has shifted to a more modest market rebalancing, with around 65 mmtpa of pre-FID LNG supply now needed by 2025. But despite improved market fundamentals, the global LNG industry has dramatically changed – buyer demands, rising supply competition and the increased optionality provided by US LNG are all impacting the way that Western Australian supply must now compete. In this presentation, Wood Mackenzie will address the following key issues: <ul style="list-style-type: none"> • Global gas and LNG – addressing the fundamentals as the market rebalances • LNG market evolution in Asia Pacific – where next? • China's evolving gas market • Where will the next wave of LNG supply come from, and how will Western Australia compete?
10:40am	Morning Tea Sponsored by ATCO

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International Gas Markets

11:10am **Speaker: Craig Jennings, Opportunity Manager Power and New Markets, Woodside Energy Ltd**
Synopsis: Australian exports of liquefied natural gas will rise significantly in the next few years with Western Australian projects making a major contribution. Australia may become the largest exporter by 2020. The growth will see LNG exports move into second place for commodity exports and rival iron ore as a driver of the Australian dollar. The presentation will explore the potential for further expansion in Western Australia and the opportunities this brings to downstream gas users.

Interactive Session: Evolution of the Gas Market

11:40am **Chair: Murray Meaton AM, Director, Economic Consulting Services**
Speakers:

- **Malcolm Roberts, Chief Executive, APPEA**
- **Taron Brearley, General Manager - Infrastructure & Major Projects, Strategic Policy, Department of Jobs, Tourism, Science and Innovation**
- **Elizabeth Aitken, General Manager Operations, Perth Energy**
- **Claire McArdle, Marketing Manager, BHP Billiton Petroleum Pty Ltd**

Synopsis: The natural gas market in Western Australia has fundamentally changed in the last few years. The end of joint marketing and new producers have greatly increased the number of suppliers. Meanwhile, global trade conditions and a mature mineral processing & manufacturing sector have limited demand growth. The gas panel will look at supply, demand and future opportunities for gas processing.

12:40pm **Lunch**

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New Opportunities in Energy: Storage and Efficiency in WA's Mining and Agriculture Sectors

1:40pm **Speaker: Paul Rasmussen, Renewables and Energy Storage Specialist and Associate, Arup**
Synopsis: The opportunities for energy storage in the mining and agricultural industries are substantial, particularly with battery technology gaining traction. Paul Rasmussen will discuss applications with respect to load shifting and ancillary services, which can reduce cost and improve system reliability. His research includes case studies with SunDrop Farms and Cultana Pumped Hydro.

New Opportunities in Energy: The Asian Renewable Energy Hub

2:10pm **Speaker: Andrew Dickson, Business Development Manager, CWP Renewables**
Synopsis: Andrew Dickson will explain the vision for a mega project in the Pilbara to export renewable energy to Asia. The Asian Renewable Energy Hub consortium, led by InterContinental Energy, CWP Energy Asia and global wind leader Vestas, has been developing the project since 2014. The 6,000 MW project (consisting of 4,000 MW of wind turbines and 2,000 MW of solar PV arrays) will export Australian wind and solar power to Indonesia and Singapore via subsea, high-voltage DC cables. The 7,000 km² project site, situated on the Pilbara coast between Broome and Port Hedland, is 10 times the size of Singapore.

New Opportunities in Energy: The New Innovation Hub

2:35pm **Speaker: Matt Cronin, General Manager Strategy and Regulation, ATCO, Gas Division Australia**
Synopsis: Matt Cronin will discuss international case studies that examine the critical role innovation and collaboration can play in a rapidly evolving energy landscape and how ATCO plans to contribute to a cleaner energy future.
 Matt's presentation will look at the use of hydrogen in North America, Japan and Europe, and at the plans South Australia and the eastern states have to transform their traditional energy infrastructure using hydrogen.

3:00pm **Afternoon Tea Sponsored by ATCO**

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Critical Infrastructure and Foreign Investment

3:30pm	<p>Speaker: Luke O’Callaghan, Energy & Infrastructure Partner, Lavan</p> <p>Synopsis: The <i>Security of Critical Infrastructure Act 2018</i> seeks to manage risks of sabotage, espionage and coercion posed by foreign involvement in Australia's critical infrastructure, including energy infrastructure such as networks and electricity generators. While the Act focusses on interference by foreign powers, there are broader questions about energy infrastructure and just how secure we really are. WA legislation provides broad powers to the Coordinator of Energy and the Minister in relation to emergencies and similar matters, but how do we deal with the risks of technological advances? Luke O’Callaghan will discuss the risks of increased interconnectivity, including in relation to smart appliances and electric vehicles.</p>
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The Coal Transition

4:00pm	<p>International Keynote Speaker</p> <p>Dr Charles Taylor, Global Partnerships Manager, United States Department of Energy</p> <p>Synopsis: Are new coal technologies such as High-Efficiency Low-Emissions and Carbon Capture and Storage viable in a future energy mix? Dr. Charles Taylor will explore how coal generation can remain cost-competitive during the transition, responsive to changing consumer baseload demand, and part of CO2 emission reductions. Dr Taylor will discuss the technologies that the U.S. Department of Energy is pursuing to assure that coal, as a part of the future energy mix, meets the economic and environmental requirements of the 21st century.</p>
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Transitioning Communities

4:30pm	<p>Speaker: Dr Elizabeth Thurbon, Associate Professor of International Political Economy, University of New South Wales</p> <p>Synopsis: In Australia and abroad, energy transformation is substantially changing energy supply dynamics. These changes will affect the vitality of communities supporting both growing and declining energy industries. Dr Elizabeth Thurbon will explore the role of industry policy in transitioning communities facing a decline in the energy industries they support.</p>
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5:00pm **Close of Day One**

6:30pm **Western Australian Energy Awards 2018 Dinner: Fraser’s, Kings Park**
Sponsored by Australian Institute of Energy and Chamber of Minerals and Energy

18TH ENERGY IN WESTERN AUSTRALIA CONFERENCE

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AUSTRALIAN INSTITUTE OF ENERGY

Day 2 Thursday 23rd of August

7:30am	<p>AIE Women in Energy and Young Energy Professionals Breakfast - career advice for my younger self Women in Energy and Young Energy Professionals are proud to host the Energy in WA Conference Breakfast on “Career advice for my younger self” where national and international energy industry leaders will talk about their career journeys, the joys and challenges along the way, and advice they would give their younger selves. <i>The breakfast is a paid event. Tickets can be purchased for conference delegates through the registration site.</i></p>
8:30am	Registration
8:45am	Introduction by Sally McMahon, Conference MC
The Changing Economics of Energy Supply	
9:00am	<p>National Keynote Speaker Professor Ross Garnaut, Professorial Research Fellow in Economics, University of Melbourne Synopsis: Distributed energy resources are changing the energy landscape, yet price remains the greatest barrier. Will the price trajectory follow that of solar, or will the greatest surprise be a gradual change? Professor Ross Garnaut will discuss the pricing trends of distributed energy resources and technology enabled opportunities to improve services to consumers and reduce supply costs.</p>
Financing in an Uncertain World	
9:30am	<p>Speaker: Lachlan Creswell, Associate Director, Macquarie Capital Synopsis: Lachlan Creswell will provide an overview on changes and trends in national and international capital flows in the energy sector, along with insights into interactions between international energy markets and projects. He will also outline perspectives on how emerging technologies influence energy financing. To what degree is policy uncertainty stemming capital flows in Australia, or is innovation fuelling transformation anyway?</p>
Electric Vehicles	
10:00am	<p>Speaker: Alison Morley, Deputy Chair, Electric Vehicle Council Synopsis: Although Australians are wedded to cars that can travel long distances, electric vehicles (EVs) are coming! EVs will be taken up at an increasing rate when their prices and incentives appeal to a growing number of interested customers. What do we need to be ready? Will customers charge their EVs when they get home from work and overload the network, forcing unnecessary network augmentation, or will technology and incentives be in place to charge them overnight when there is spare network capacity? EVs are a network owner's and retailer's dream for additional sales if managed correctly. Alison will outline the overseas and Australian state of play and projections for EVs, and what needs to be done in Australia.</p>
10:30am	Morning tea Sponsored by Phoenix Contact

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National Energy and Carbon Policy

11:00am **Speaker: Ben Skinner, General Manager, Policy & Research, Australian Energy Council**
Synopsis: Australian energy markets have suffered several anni horribiles with ongoing carbon wars, a state-wide system blackout, big increases in east coast gas and electricity prices, and a major new market reform blueprint (the Finkel Review), amongst a host of other proposals. All the public claims of broken markets add up: studies rank our industry’s reputation below that of banks, even during the Banking Royal Commission. But we may have a way out of the morass with unprecedented support for the National Energy Guarantee, which has at its base some good policy principles. Ben Skinner will look into how it can work in the National Electricity Market, and how, in time, WA might choose to participate.

Microgrid and Standalone Power Systems

11:30am **Speakers: Colin Beckett, Board Chair, and Matt Cheney, Head of Grid Transformation, Western Power**
Synopsis: Embedded microgrids, stand-alone power systems, and utility-scale batteries are becoming increasingly viable alternatives for niche network opportunities as their costs fall. Western Power will present its experience with such technologies and the scale of their potential in the SWIS, the implications for the future transmission and distribution networks, how the business model is adapting to seize opportunities, and what is being done to remove regulatory barriers.

Embracing New Technology to Deliver Better Services at Lower Costs

12:10pm **Speaker: Mike Houlahan, Acting Chief Executive Officer, Horizon Power**
Synopsis: Horizon Power’s unique position in the energy sector is both the envy and the nightmare of energy utilities. Managing the most diverse and sparsely populated customer base in Australia (perhaps in the world) presents great challenges, but it also brings forth unique opportunities, making innovative solutions viable much earlier than would be the case in traditional networks. Mike Houlahan will discuss how Horizon Power is using new technology and product innovation to solve some of the most pressing problems facing the sector, all while providing better services to customers.

12:40pm **Lunch Sponsored by Alinta Energy**
Dine with Conference Speakers
 The Energy in WA Conference will host an interactive lunchtime session with conference speakers and WA energy leaders. A selection of speakers will host informal discussions at their tables on matters of their expertise over an enjoyable lunch. The sessions will follow an informal Q&A style, and delegates will be able to choose their table on a first-come, first-served basis.

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Leaving No Customers Behind: The Future of Managing Hardship

2:00pm

Speaker: Jan Prichard, General Manager, Customer Care, Origin Energy

Synopsis: Media attention about retail competition brings to focus the serious consequences for the market's 'stickiest' customers. Those in hardship are the most vulnerable to changes in energy prices yet are often the least likely to pursue a better product. In a market that rewards on-time payment, encourages direct debit, and penalises paper bills and in-person payment, how do we make sure we don't cut the market's most vulnerable customers out of a better deal?

Jan Prichard will discuss Origin's unique approach to managing customer hardship and its views on the evolving role of retailers in ensuring customers stay connected.

Cost, Price and Productivity: Taking Control of Energy Market Exposure

2:25pm

Speaker: Luke Menzel, Chief Executive Officer, Energy Efficiency Council

Synopsis: The last two years have seen concern around rising energy bills run red hot. The ensuing debate has focused almost entirely on some parts of the solution – distributed generation and storage – and largely ignored others, like cost-effective demand-side opportunities to bring down bills. Yet often it is energy efficiency and energy management that can have the quickest impact on bills and reduce energy market exposure over the long term. Luke Menzel's presentation will go beyond solar panels and batteries to explore the role of consumer decisions in energy sector transformation and outline some policy options to support consumers' long-term interests.

2:50pm

Afternoon tea Sponsored by Phoenix Contact

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Interactive Session: What WA Needs Now

3:20pm

Chair: Nicky Cusworth, Chair, Economic Regulation Authority

Speakers:

- **Tony Wood AM, Energy Program Director, Grattan Institute**
- **Jeff Dimery, Managing Director & Chief Executive Officer, Alinta Energy**
- **Cameron Parrotte, Executive General Manager, Australian Energy Market Operator (AEMO)**
- **Jason Waters, Chief Executive Officer, Synergy**
- **Richard Harris, Chairperson, WA Independent Power Association**

Synopsis: The call for long-term vision for the energy sector has resulted in several large reviews, many of which have been criticised for failing to deliver as promised. Is this a case of analysis-paralysis, or does the future of energy require a shorter-term focus?

Our panellists will discuss the priorities for the WA electricity market over the next two years. What should be prioritised, what is achievable, and what do we need to make it happen?

4:50pm

Conference wrap-up by Julian Fairhall, Conference Committee Chair

5:00pm

Conference Closing Function Sponsored by Synergy