

Summit Programme

Day 1 Wednesday 16 March 2016

Facing New Challenges
Better Understanding Resilience

8.00 Summit Registration at Intercontinental Hotel

8.40 Opening

Welcome and overview

Hon David Caygill

(Chair, BusinessNZ Energy Council, NZ)

Address by the New Zealand Prime Minister

Rt Hon John Key

(Prime Minister, NZ)

9.00 What is resilience? Broadening our awareness of the challenges

We know resilience is increasingly important, but do we know what it means or what challenges we need to overcome? This session will canvas what's here now and what's on the horizon to give a better understanding of resilience and the risk of a non-resilient energy system.

Stuart Brown

(Director, Head of EMEA – Asia/Pacific Origination, Weather & Energy, Swiss Re, UK)

9.30 Global resilience risks and challenges

Climate change, emerging technologies, extreme weather events, cyber security and the energy-water-food nexus present growing resilience risks and challenges. So will looking to the future inform the choices we make today? How do we balance energy access and affordability and the challenges of environmental sustainability with security and financial considerations? Our international experts will discuss global trends, their drivers and the risks and challenges they pose to delivering resilient global energy systems.

Cecilia Tam

(Deputy Vice President, Asia Pacific Energy Research Centre APERC, Japan)

Joan MacNaughton

(Executive Chair, World Energy Trilemma, UK)

Jamie Summons

(Head of Weather Solutions, Swiss Re, Australia)

Facilitator: Toby Stevenson

(Director, Sapere Research, NZ)

10.30 Morning Tea at Intercontinental Hotel

10.50 The Climate Change Challenge: Turning nationally determined contributions into global responsibility
Three months have passed since the latest international climate change conference COP21. What emerged from the Paris conference? Were its objectives achieved? Are we now on a pathway to a low carbon global economy? What needs to happen next?

Hon Paula Bennett

(Minister for Climate Change Issues, NZ)

11.20 Panel Discussion: Climate Change

With an increasing global population and a growing demand for improved quality of life, climate change is an ever more important factor in energy system resilience. But, can our efforts to address the issue outpace the rate at which the climate is changing? What types of public-private partnerships are needed for successful mitigation and adaptation, and what are the key challenges faced? What part should domestic and foreign state and business representatives play in adaptation financing?

Anna Lehmann

(Vice President Policy, Climate Markets and Investment Association, UK)

Jo Tyndall

(Ambassador Climate Change, Ministry of Foreign Affairs and Trade, NZ)

Peter Woolcott

(Australian High Commissioner, NZ)

Facilitator: Joan MacNaughton

(Executive Chair, World Energy Trilemma, UK)

12.30 Lunch at Intercontinental Hotel

13.30 Customer behaviour and technology trends and their impact on resiliency

The global and regional energy system is changing rapidly and becoming both more complex and uncertain. How can emerging technologies and systems support a cost-effective evolution to a smart, resilient low-carbon future? How do we commercialise and integrate renewable sources of energy into energy systems in a way that maintains security of supply and affordability? What consumer and technology trends are emerging and what policy settings do we need to deliver resilient energy systems?

Dr Phyllis Genter Yoshida

(Chair, APEC Energy Working Group, US)

14.00 Panel Discussion: Emerging risks and implications on resilience in the Asia-Pacific

We now know more about global resilience risks and challenges, but what effects are we observing in the Asia-Pacific region? What new risks are faced by the region's energy industry and how will these affect the design and operation of, and investment in, the energy system? What is the future role of fossil fuels in delivering a resilient energy infrastructure in the Asia-Pacific region?

Dr Xiaotao Cheng

(Vice Chairman, Institute of Water Resources and Hydropower Research, China)

Dr Phyllis Genther Yoshida

(Chair, APEC Energy Working Group, US)

Rob Jager

(Chairman, Shell, NZ)

Ashok Bhargava

(Director, Energy Division, ADB, Asia)

Facilitator: Christoph Frei

(Secretary General, World Energy Council, UK)

15.00 FEL Summit Conclusion

Summary and Outlook of the Future Energy Leaders' Summit from the 15th of March 2016

Andrew Millar

(Principal Advisor, MBIE, NZ)

Jenny Lackey

(Manager Strategy and Programme Portfolio, EECA, NZ)

Tina Frew

(Supply Optimisation Analyst, Z Energy, NZ)

15.15 Closing

Summit day one summary from the Chair

David Caygill

(Chair, BusinessNZ Energy Council, NZ)

15.30 Site Visit: West Wind Farm - Meridian Energy

15.30 Board buses outside Intercontinental Hotel on Grey Street, Wellington. Travel to West Wind Farm with commentary from a Meridian Energy representative.

16.00 Visit to public viewing area

16.30 Tour through the wind farm to switch yard leaving the buses to see turbines along the way. Go down to the Oteranga Bay jetty and the Cook Strait cable terminal site

17.30 Return to Intercontinental Hotel

18.00 Arrive at Intercontinental Hotel

19.00 Gala Dinner at Banquet Hall, Parliament

Day 2 Thursday 17 March 2016

Redefining Boundaries

Creating a More Resilient Energy Future

8.15 Summit Registration at Intercontinental Hotel

8.45 Opening

David Caygill

(Chair, BusinessNZ Energy Council, NZ)

9.00 WEC Report Launch: Energy-water-food nexus

Launch of the new WEC energy-water-food nexus report.

Christoph Frei

(Secretary General, World Energy Council, UK)

9.20 Panel Discussion: Resilient energy infrastructures adapting to the energy-water-food nexus

Energy, water and food are essentially linked with actions in one area having an effect on the other. In this context we will be discussing current energy-water-food nexus considerations to find out what lessons have emerged and what we can do to address increasing vulnerability, and become more resilient.

Christoph Frei

(Secretary General, World Energy Council, UK)

Vincent Tidwell

(Distinguished Member of Technical Staff, Sandia National Laboratories, US)

Facilitator: Patrick Smellie

(Journalist and Commentator, BusinessDesk, NZ)

9.50 Government address

New Zealand operates in a global energy world, yet has some unique resilience challenges and opportunities, but how resilient is New Zealand's energy infrastructure? What needs to be done to make it more resilient to the risks and challenges we face? Are new policy approaches needed? What solutions are available, or are on the horizon?

Hon Simon Bridges

(Minister of Energy and Resources, NZ)

10.10 Morning Tea at Intercontinental Hotel

10.30 Panel Discussion: Creating resilience – policy-maker and business leader perspectives

Resilience is emerging as a clear priority for both the private and public sectors. By getting business and policy-makers together we want to consider what governments, businesses and societies can do differently in response to the 'new normal'. Can greater energy system resilience create competitive advantage, and if so how? Do policy-makers have the right tools to develop evidence-based policy solutions? Does the business sector have the right financial risk management tools to invest in higher levels of resilience and how will this be paid for?

Hon Simon Bridges

(Minister of Energy and Resources, NZ)

Steven Kennedy

(Executive, Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education, Australia)

Mark Binns

(Chief Executive, Meridian Energy, NZ)

Oleg Budargin

(Chief Executive, Rossetti, Russia)

John Allen

(Chief Executive, New Zealand Racing Board)

11.30 Meeting the challenges: New perspectives on financial, institutional and other arrangements

What is the role of global financial institutions in achieving resilience across the Asia-Pacific region? Has the evolution in our thinking about resilience been matched by evolution in financing, institutional and other arrangements? What new tools are being applied to the resilience challenge? Are there society-wide co-benefits to investing in resilience? What are they?

Dr Xiaoping Wang

(Senior Energy Specialist, World Bank, Thailand)

12.00 Lunch at Intercontinental Hotel

13.00 Smart and resilient cities: transforming design

What does resilience mean at a city-level? How do we create a city with a resilient energy infrastructure? What new business models, technologies and information systems are required to support smart cities?

Bryna Lipper

(Vice President, Relationships, 100 Resilient Cities, USA)

13.30 Panel Discussion: Achieving resilience through energy efficiency: the changing roles of cities, citizens and consumers

According to WEC estimates, energy demand is expected to increase, dramatically in regions such as Asia. At the same time, the energy supply will face changing conditions. Recognising this, we will think about the extent to which energy efficiency can help to build energy system resilience, and if so, what are the emerging opportunities? What policy and business systems do we need to have in place to facilitate or encourage greater energy efficiency? What role will current and emerging technologies have in unlocking enduring behaviour change? How do we learn from each other's successes and failures in meeting international goals in a local context?

Bryna Lipper

(Vice President, Relationships, 100 Resilient Cities, USA)

Ray Brown

(Manager Transmission, Distribution, Renewable AECOM, NZ)

Greg Skelton

(Chief Executive, Wellington Electricity Lines, NZ)

Dr Zhu Li

(President, APEC Sustainable Energy Centre APSEC, China)

Facilitator: Mike Underhill

(Chief Executive Energy, EECA, NZ)

14.20 Convergence: The emergence of the new energy market and the rise of the shared economy

New market structures and rapidly evolving technologies can unlock energy system resilience. However, what factors are driving the emergence of new disruptive technologies and the evolution of new market models? Are we seeing a 'new' convergence of telecommunications, power and transport emerge? Are consumers forging a new relationship with the way energy is produced and consumed? What is the role of 'big data'? Can 'big data' help to design a higher resilient energy infrastructure? Does 'big data' give rise to cyber risks?

Mark Coughlin

(Partner, Australian and Asian Energy & Utilities Leader, PWC, Australia)

Lee Stewart

(Head of Sustainability Oceania, Fujitsu, Australia)

Facilitator: Mike Underhill

(Chief Executive Energy, EECA, NZ)

15.10 Coffee Break at Intercontinental Hotel

15.30 The future role of e-mobility

Is the future of mobility electric, and if so, how can e-mobility help to create a resilient city? What are the challenges and opportunities for enhanced e-mobility in the Asia-Pacific region? What role will consumer behaviour have in transport transformation and what will trigger it? Do we have the policy settings we need to stimulate a more rapid uptake in electric vehicles as well as the financial tools to facilitate it?

Christina Bu

(Secretary General, Norwegian Electric Vehicle Assoc., Norway)

16.00 Panel Discussion:

Emerging global and regional trends in transport

An intelligent infrastructure, preventive measures and preparations for diverse impacts are the key to achieving a resilient transport system. But what is the next generation of transformative transportation solutions in the Asia-Pacific region? What changes are required in the transport sector to secure sustainable energy and mobility in the future, and what policy setting changes, innovative business practices or changing patterns of consumer behaviour will unlock them? How can e-mobility contribute a city's resilience performance and what can technology, policy and finance do to assist?

Christina Bu

(Secretary General, Norwegian Electric Vehicle Assoc., Norway)

Ralph Sims

(Prof Sustainable Energy, Massey University, NZ)

Kazuyuki Iwata

(Chief Engineer, Honda Motor Company, Japan)

Prof John Boys

(Emeritus Professor and Consultant, Auckland University, NZ)

Facilitator: Dr Brent Layton

(Chair, Electricity Authority, NZ)

17.00 Closing

Summary and closing comments from the Chair

Hon David Caygill

(Chair, BusinessNZ Energy Council, NZ)

SIDE BAR EVENTS

WORKSHOP

Wednesday 16 March 2016 2.00-3.30

Building and Operating a Resilient Renewable Electricity System

At the heart of electricity sector resilience is the increase in global power generation from renewable energy of around one percentage point per year, reaching 23% in 2014. The power sector transformation is ongoing, but the transition pace and ambition level vary from country to country. Measures need to be adapted to specific power system conditions.

The Workshop is designed to provide a forum for experiences to be shared amongst those responsible for the design, construction and operation of electricity networks.

Discussion will be directed to identifying and highlighting the issues, canvassing experience within the Asia-Pacific region and exploring the potential to continue the exchange of practical operating experience to catalyse and reinforce the transition to resilient systems as renewable resources increasingly contribute to electricity generation.

MINISTERIAL ROUNDTABLE:

Thursday 17 March 2016 11.30-1.00

CEO ROUNDTABLE:

Thursday 17 March 2016 1.30-3.00

The Asia-Pacific Energy Leaders' Summit has attracted CEOs, Ministers and senior officials from across the region. With energy resilience emerging as a clear priority for both the private and public sectors, these invitation-only CEO and Ministerial Roundtables provide an opportunity for peer-to-peer dialogue in an informal setting.

As we move towards a world of increasing uncertainty and extraordinary change, the energy industry faces a wide range of risks that impact on the energy system. With the imminent release by the World Energy Council of its 2016 Energy Issues Monitor, and the release of its next resilience report at the Summit, the scene is now set for a fruitful discussion on new ideas about the growing resilience risks, challenges and opportunities.

The Roundtables will be hosted by Christoph Frei, Secretary General of the World Energy Council. The Hon. Simon Bridges, New Zealand's Minister of Energy and Resources, will co-host the Ministerial Roundtable.

Invitees will be provided with further details of these Roundtables separately.

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