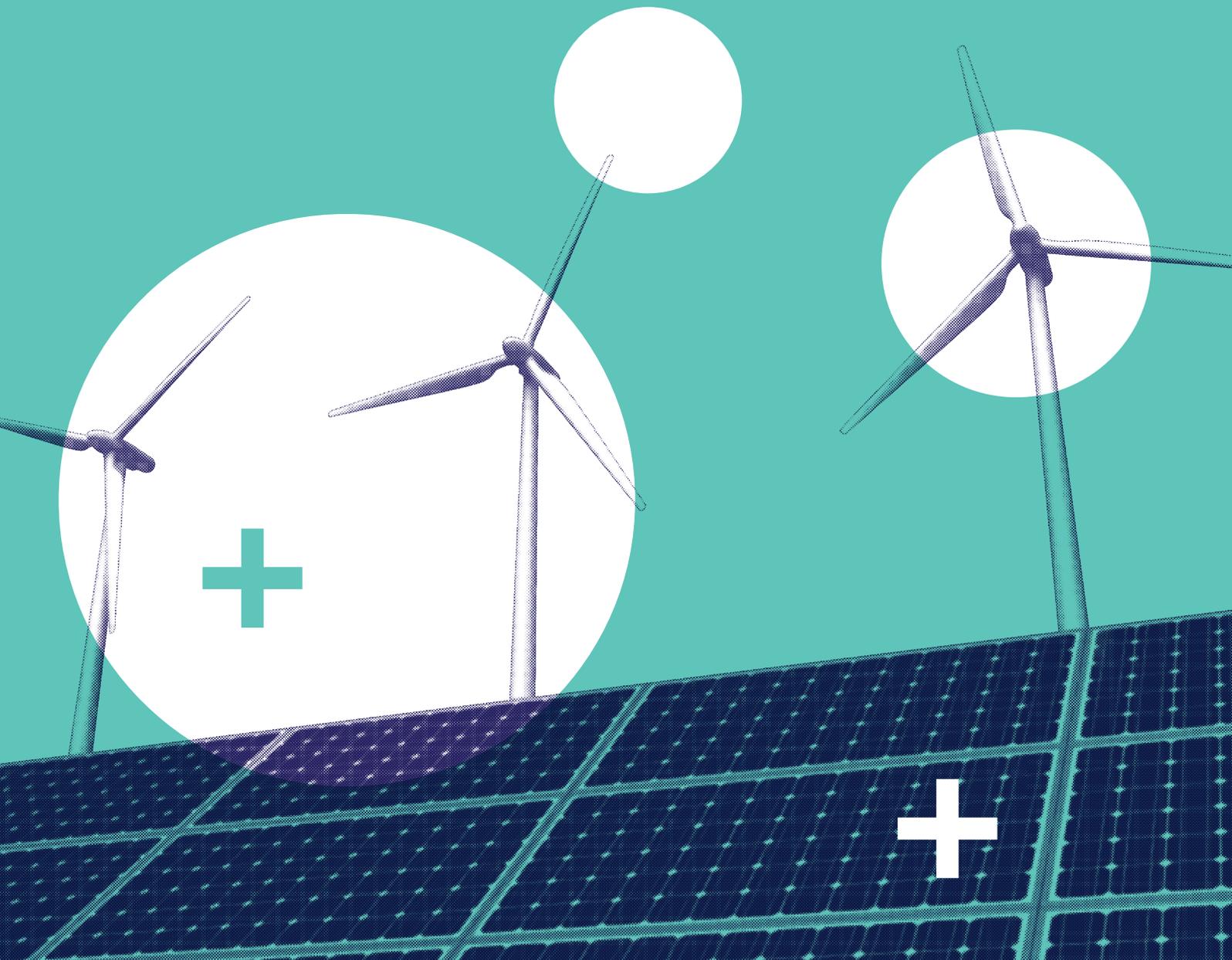


2020 | NEW ZEALAND

DOWN STREAM

Leading the transition to the new energy future

17-18 MARCH 2020 | TSB ARENA, WELLINGTON





2020 | NEW ZEALAND

DOWNSTREAM

17-18 MARCH 2020 | TSB ARENA, WELLINGTON

Downstream is New Zealand's leading event for the energy industry. In 2020, we're introducing a range of new features to promote collaboration and engagement. Downstream remains the key gathering offering crucial insights into current energy sector challenges and opportunities, bringing together sector leaders and influencers to plan for the transition to the new energy future.



Global lessons in decarbonisation

Innovating in harder to decarbonise sectors

Grid edge innovations

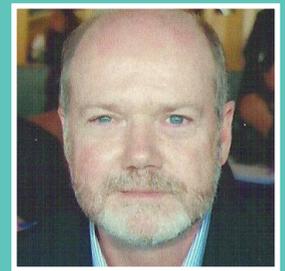
GLOBAL KEYNOTE SPEAKERS



Simon Skillings
E3G United Kingdom



Dr Colin Cunliff
Information Technology and Innovation Foundation USA



James T. Gallagher
New York State Smart Grid Consortium USA

LOCAL SPEAKERS



Alison Andrew,
Transpower



Dr Alan Bollard,
NZ
Infrastructure Commission



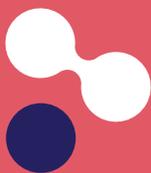
Jason Paris,
Vodafone New Zealand



Miriam Dean,
Electricity Price Review



Margaret Cooney,
Powershop



DOWNSTREAM DINNER

Join us at the end of Day One for the Downstream Dinner – a great way to continue the conversations with your peers from the industry. Book our most popular Summit+Dinner pass.

This year our dinner will host a political fireside chat with our major political party representatives and the Energy and Resource Minister, the Hon Megan Woods.

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What's new in 2020?

The energy sector is changing rapidly and, in response, Downstream has changed too. We've hit the reset button. Join us in March to experience a unique, immersive experience of energy sector innovation.

In 2020 we are delighted to bring Downstream to Wellington for the first time.

Downstream is renowned for bringing together decision makers from across the energy and utility sector. The 2020 event facilitates change and transformation across the energy sector by providing you with opportunities to *engage and interact*.

After listening to the plenary Downstream speakers, join your peers in our Engage Zone. During our extended Engage sessions, participate in a range of activities or simply use the time to connect with peers and meet with the exhibitors. The Downstream Engage Zone includes the following elements:

DOWNSTREAM SEMINARS

Held in the Pop Up Theatre, within the Downstream Engage Zone - Features 5 short compelling seminars per day. No pre-booking required.

DOWNSTREAM ENGAGE ZONE

DOWNSTREAM ROUNDTABLES

Expanded and now within the Downstream Engage Zone - Book your place and join nine of your peers for insight and discussion on one of the series of roundtables to experience the new Downstream.

ROUNDTABLE SPONSOR



DOWNSTREAM NETWORKING

Book meetings with regulators, key industry participants other delegates and exhibitors - with more space for meetings or structured discussions with people of like minds around key topics.

ENGAGE ZONE SPONSORS



DOWNSTREAM DIGITAL

Connected digital technologies, fully digitised consumers and data are the game changing keys to an efficient future energy system. In 2020, this crucial content is embedded within the main agenda and the Downstream Engage zone. Look for the Downstream Digital logo for the latest hot topics in digital energy.

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DIGITAL GOLD SPONSOR



07.30 **Coffee and networking within Downstream Engage Zone begins**



07.30 **Sponsored Breakfast (by invitation)**
Sponsored by **JACOBS**

09.00 **Opening remarks from the Chair**
Sheridan Broadbent – *Director, Transpower*

09.05 **International keynote: Energy system decarbonisation – lessons from UK and Europe**

- The evolution of policy and business strategy in the UK energy market
- Delivering net zero – institutional and policy requirements – lessons from Europe
- Broken business models and the future of liberalisation
- Green growth – aligning the innovation and delivery agendas
- From coal to clean

Simon Skillings – *Senior Associate, E3G (UK)*

09.50 **Customer focused and data driven business transformation**



- How to build a customer led digital business – what does this mean for your organisation?
- Gaining insights from data to continuously improve the consumer experience
- Understanding how connected digital technology, new service models, fully digitalised consumers and a ruthless focus on the customer experience are coming together to drive change in energy businesses the world over
- Why data is the game changing key to an efficient energy system

Jessica Venning-Bryan – *Chief Client Officer, Flux Federation*

10.30 **Morning break and networking within Downstream Engage Zone**



11.00 **Leaders' panel: Leading the transition**

Exploring the opportunities and critical issues facing all segments of the sector.

- Are New Zealand's energy businesses able to deliver the collaborative models of working required to transition to the fully optimised, highly productive and affordable energy system of the future?
- Addressing the energy hardship questions and delivering 'accessible' and 'fair' energy services
- Social license and the energy business - exploring new ways of thinking about purpose, value and stewardship of resources
- Addressing the workforce challenges driving risk and costs in the sector – do we have the solutions?

- Is the sector prepared to deliver the culture shift to meet the future energy needs of customers including the associated digital revolution?

Paul Goodeve – *Chief Executive, First Gas*
Margaret Cooney – *Chief Executive, Powershop*
Alison Andrew – *Chief Executive, Transpower*
Elena Trout – *Director, Contact Energy*

12.15 **Lunch and networking within Downstream Engage Zone**



2.05 **Industry energy transitions panel: Meeting the future energy needs of New Zealand businesses**

Hear quickfire case studies from leading New Zealand businesses on how they are planning for the transition to a new energy future. Share their thinking about how they plan to power their businesses and explore their plans for electrification and the use of alternative energy sources. Analysing the different future fuel options that could both power business growth and deliver decarbonisation of the economy.

- Fonterra – The role of electrification of industrial processes in our vision for a low emissions future

Tony Oosten – *Energy Manager, Fonterra*

- Countdown - Sustainability powering the stores and fueling the retail logistics of the future

Kiri Hannifin – *GM Corporate Affairs, Safety & Sustainability, Woolworths New Zealand*

- Refining NZ – Why a petrochemical business plans to build the country's biggest solar farm

Dr Julian Young – *Chief Development Officer, Refining New Zealand*

3.00 **The role of the Infrastructure Commission in the planning and co-ordination of energy infrastructure**

- Exploring the focus of the new Commission and its overlaps with the energy sector
- Explaining the links between New Zealand's long-term wellbeing and infrastructure investment and performance
- The link between the 30-year infrastructure strategy and energy
- Understanding how the role of the Commission connects with the roles of the current market and economic regulators

Dr Alan Bollard – *Chair, Infrastructure Commission*

3.35 **Afternoon break and networking within Downstream Engage Zone**



4.05 **Updating Te Mauri Hiko – Analysing energy futures**

- Updating our analysis of the consequences of future growth in demand for new connections

- What will be the uplift in volume of new connections needed by increased process heat demand, EV charging and renewable generation?
- Exploring the impact of these changes from a network perspective
- Understanding the changes in business models and regulation this will drive

Richard Hobbs – *General Manager Strategy, Transpower*

4.45 **Distributed energy, micro grids and innovation at the grid edge**



- How the expansion of renewables and micro-trading will drive change within the energy system
- Solutions and business models advancing the transition toward a decentralised, distributed and transactive electric grid
- Achieving the aggregation and optimisation of distributed energy resources and overcoming the load management issues for energy systems
- How to ensure that low income households benefit from the value created by grid edge technologies

James T. Gallagher – *Executive Director, New York State Smart Grid Consortium (USA)*

5.25 **Chair's closing remarks**

5.30 **Networking drinks within Downstream Engage Zone**



6.30 **Downstream Dinner and political fireside chat**



07.30 **Coffee and networking within Downstream Engage Zone opens**



07.30 **Sponsored Breakfast (by invitation)** **Sponsored by**



09.00 **Welcome back from the Chair**

Tina Schirr – *Senior Policy Advisor - Energy & Innovation, BusinessNZ Energy Council*

09.05 **Achieving accelerated electrification to drive the decarbonisation of New Zealand**

- Why the electricity system is central to decarbonisation of the whole economy
- Prioritising the accelerated electrification of transport and process heat
- How do we overcome barriers to consenting further development required to meet the energy demands of future electrification and decarbonisation?

Exciting speaker under invitation – watch this space, announcement will be made shortly

09.20 **What is the opportunity that 5G technology presents to the energy sector?**



Technology analysts predict that the energy sector will be one of the biggest future users of 5G. However, while 5G is the future, it is also the here and now. This session explores the use cases that will drive 5G adoption in the energy sector and analyses where it will deliver the greatest impact in the short to medium term.

- Analysing the impact of the 5G enabled 4th Industrial Revolution on energy consumption
- Exploring how 5G ultra reliable low latency communication (URLLC) will better enable connected network control structures
- Realising the vision of an Internet of Energy – how 5G will allow companies to manage their assets and enable better management of energy demand
- Understanding the spectrum and resilience challenges that could impact energy systems

Jason Paris – *Chief Executive Officer, Vodafone New Zealand*

09.50 **Analysing the findings of the Electricity Pricing Review**

- Delivering the Review's recommendations and predicting the short, medium and long-term outcomes
- The regulatory changes that the EPR will drive
- Establishing a Consumer Advisory Council to ensure that the consumers voice is heard
- Exploring how the Review will provide a catalyst to the industry to work collaboratively and find solutions to tackling energy hardship

Miriam R Dean CNZM QC – *Chair, Electricity Price Review*

10.30 **Morning break within
Downstream Engage Zone**



11.00 **Blackouts – could it happen again in
New Zealand?**

With large-scale blackouts being experienced all over the world, we hear two perspectives on the lessons that the New Zealand energy system can learn to avoid it happening here.

- Understanding the lessons that can improve our system resilience
- Stress testing the performance of the network – planning for the worst possible scenario
- Exploring the interdependence of our resources – are we at increased risk of fragility as we transition?
- Protecting our energy system from the risk of cyber-attack

John Clarke – *General Manager Operations, Transpower*

Ryno Verster – *General Manager, Asset Strategy and Investment, Powerco*

11.50 **The new Electricity Authority strategy**

They develop, administer and enforce the market rules that govern nearly every aspect of New Zealand's electricity industry, and their strategy is changing. The last Statement of Intent, which outlines strategic intentions, was published in 2017. This session will reveal the new strategy.

Board Member, Electricity Authority

12.30 **Lunch and networking within Downstream
Engage Zone**



2.05 **What a mesh! Real-world distributed system
operators**

Ben will share insights and experiences gained through several distributed system operator (DSO) trials underway in Australia's National Electricity Market.

- Australia is at the forefront of the need to integrate decentralised systems due to a massive acceleration in the uptake of distributed energy resources led by residential rooftop PV and emerging energy storage
- Distributed energy resources and growth projections in electric vehicles drive an urgent need to design and implement a layer of commercial and control structures to maximise value and retain security

Ben Vanderwaal – *Partner, Ernst & Young*

2.45 **Panel discussion: Meeting the demands of
New Zealand's energy peak**

New Zealand's unique energy mix means we are better placed than many to reduce our reliance on carbon. But with decarbonisation potentially driving up demand for electricity by 50% or more, hard questions have to be asked about where the energy will come from. Base load may not be a problem, but to meet the needs of future peak load and achieve the system reliability and resilience required, innovative solutions will need to be found.

- Cost and reliability perspectives on the right level of renewables
- What is the potential scale of the shortfall in capacity at peak load?
- Analysing the ongoing role of gas within the New Zealand energy system
- Gas storage – can we store the capacity we need for emergencies and to provide flexible supply
- Assessing the viability of battery technology to provide the storage needed to respond to peak demand

Andrew Knight – *Chief Executive, Gas Industry Company*

Ralph Matthes – *Executive Director, Major Electricity Users Group*

Grenville Gaskell – *Chief Executive, NZ Wind Energy Association*

3.30 **Afternoon break and networking within
Downstream Engage Zone**



4.00 **Beyond electricity: Innovation challenges for
harder-to-decarbonise sectors**

- Exploring the limits of electrification for deep decarbonisation: hard-to-electrify transportation (aviation, shipping); industrial heat and process emissions; and non-CO2 gases such as methane from agriculture
- Carbon capture and storage for heavy industry
- Zero-carbon fuels for aviation and shipping, and high-temperature heat for industrial processes
- Negative emissions technologies to counter residual emissions from sources that are difficult, if not impossible, to eliminate
- Accelerating innovation & scaling up climate solutions: combining technology push with market pull

Dr Colin Cunliff – *Senior Policy Analyst, Information Technology and Innovation Foundation (USA)*

4.45 **Closing remarks from the Chair**

4.50 **Close of conference**

Sponsored by





DAY ONE | 17 March 2020



12.25 **Eagle Technology**



12.45 **Disruption of regulatory development processes**
Nick Williamson - Principal Consultant, Align



1.05 **Technology One**



1.25 **The challenge of public safety**
Peter Berry - Executive Director, Electricity Engineers' Association (EEA)
Trish Allen - National Chairperson, EEA Public Safety Working Group, & Corporate Safety and Health Specialist, Meridian Energy



1.45 **Battery energy storage, grid stability and network deferral**
Warwick O'Dell - Manager - Australia Pacific - Aggreko Microgrid & Storage Solutions, Aggreko



DAY TWO | 18 March 2020



12.25 **Cyber security**

12.45 **Tackling energy hardship**
Miranda Struthers - Accessible Energy Advocate, Electricity Retailers' Association of New Zealand



1.05 **Blockchain applications in energy**
Dr Dermott McMeel - Lecturer, University of Auckland

1.25 **Case study: Achieving an acceleration of electrification**
Hamish Reid - Director, Sustainability and Brand, Synlait



1.45 **EDMI**



DOWNSTREAM NETWORK MANAGERS' FORUM

16 March 2020 | 1.30pm
TSB Arena, Wellington

An exclusive annual event designed for network staff involved in managing, designing and operating New Zealand's transmission and distribution systems.

- 1:30 Registration - coffee and tea
- 2:00 Welcome from the Chair
- 2:05 **Leaders' Panel: Big ticket items affecting network management**
Glenn Coates - General Manager - Asset Management and Planning, Aurora
Neil Simmonds - Chief Executive, Electra
Brigitte Colombo - Chief Information Officer, Powerco
- 2:45 **Your network and the decarbonisation priority**
- 3:15 **Industry Insight - latest network technology**
- 3:30 **Afternoon refreshments**
- 4:00 **Demand trends update**
- 5:00 **Close of Forum**

The Network Managers' Forum is included free to attend for network staff who are attending Downstream 2020 Summit.

Registration fee \$495 + GST - payable for network staff not attending Downstream 2020 Summit. There are also a limited number of \$495 tickets available for non-network staff attending Downstream 2020 Summit (apply to neilwembridge@freemanmedia.co.nz)

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DOWN STREAM SUMMIT

Includes Dinner

Super Saver:	Early Bird:	Last Minute:
\$2400	\$2500	\$2700
<small>+GST PAY BEFORE 5PM 18 DEC 2019</small>	<small>+GST PAY BEFORE 5PM 7 FEB 2020</small>	<small>+GST PAY AFTER 5PM 7 FEB 2020</small>

*Each Downstream Summit pass includes 1 Network Managers' Forum pass (value \$495) Restrictions apply

DOWN STREAM SUMMIT

(Excludes Dinner)

Super Saver:	Early Bird:	Last Minute:
\$2190	\$2290	\$2490
<small>+GST PAY BEFORE 5PM 18 DEC 2019</small>	<small>+GST PAY BEFORE 5PM 7 FEB 2020</small>	<small>+GST PAY AFTER 5PM 7 FEB 2020</small>

*Each Downstream Summit pass includes 1 Network Managers' Forum pass (value \$495) Restrictions apply

DOWNSTREAM DINNER

(DINNER ONLY)

Dinner Ticket:	Table of 10:
\$210	\$2100

DOWNSTREAM NETWORK MANAGERS' FORUM

Single Ticket: **\$495**

*Network Managers Forum Restrictions: A registration fee of \$495 + gst is payable for network staff not attending the main Downstream Summit. There are also a limited number of \$495 tickets available for non-network staff attending the main Downstream 2020 conference.

Agenda Updates: IEC Ltd reserves the right to make any amendments deemed to be in the best interest of the conference. Agenda is correct at time of printing, please check online for any updates. Please see website for full details and cancellation policy.

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Direct credit to our bank account (please supply details of remittance) Select pay via invoice when registering online.

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WHAT HAPPENS IF I HAVE TO CANCEL?
YOU HAVE SEVERAL OPTIONS:

- Send a substitute delegate in your place at no charge.
- Confirm your cancellation in writing (email or letter) at least ten working days prior to the event to be considered for a refund (minus a \$300+GST service charge per registrant). Regrettably, no refunds can be made for cancellations received after this date.

SPONSORSHIP OPPORTUNITIES

The 2020 Downstream Summit has some superb sponsorship and exhibition opportunities. Contact sponsorship@conferenz.co.nz or malcom.govender@freemanmedia.co.nz for a prospectus or to discuss ways to participate and showcase your company.

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