



23 & 24 SEPTEMBER 2020 | 9.00am - 1.00pm









© @EIANZorg



## **INTRODUCTION**

New Zealand's Climate Change Response (Zero Carbon) Amendment Act 2019 outlines how New Zealand will contribute to the global effort to comply with the Paris Agreement. The agreement limits the global average temperature increase to 1.5° Celsius above pre-industrial levels

The Act established an independent Climate Commission to guide NZ's transition to net zero greenhouse gas emissions by 2050. It will help the Government set targets and prepare a policy plans. It has two main functions: to provide expert advice and act as an independent watchdog to hold the Government to account.

The EIANZ Symposium will hear from the Chair of the Commission to speak on the commission's mandate and how it intends to proceed. This will be followed by a series of speakers each addressing some aspect of carbon emissions and the measures being implemented to reduce or offset these to assist in achieving the target set by the Act.

## NZ | VIRTUAL SYMPOSIUM CARBON ZERO 2050

## DAY ONE | 23 September 2020

Time	
9:00am – 9:15am	Welcome
	Dr Mark Bellingham   President EIANZ NZ Chapter
9:15am – 10:00am	Dr Rod Carr   Chairperson, Climate Change Commission
	The Climate Change Commission: mandate, methods and how we can help
10:00am – 10:30am	Dr Dave Lowe   Director, Lowenz Ltd
	The Science of carbon, increasing atmospheric CO2 and methane,
	implications for the climate, the urgency of emissions reductions and engineering solutions
10:30am – 10:40am	Break
10:40am – 11:10am	Mr Mike Smith   Iwi Leader & Chair of Iwi Chairs Climate Change Rōρū
	Maori perspective
11:10am – 11:40am	Mr John Carnegie   CEO, Petroleum Exploration & Production Association of NZ (PEPANZ)
	Oil industry responses to the carbon challenge
11:40am – 11:45am	Break to set up discussion groups
11:45am – 12:25pm	Discussion Groups
12:25pm – 1:00pm	Summary of the day

## DAY TWO | 24 September 2020

Time			
9:00am – 9:15am	Welcome/summary of feedback from Day 1 discussion groups  EIANZ representative		
9:15am – 9:45am	Green Carbon Mr Chris Livesey   Ecological economist and forestor Forestry and carbon sequestration		
9:45am – 10:15am	Brown carbon  Ms Michelle Sands   Horticulture NZ  Farm Environmental Plans - helping deliver NZ's carbon commitment		
10:15am – 10:25am	Break		
10:25am – 10:55am	Blue Carbon Dr Candida Savage   Otago University Estuaries and wetlands as carbon sinks		
10:55am – 11:30am	Dr Sean Simpson   Chief Scientific Officer, LanzaTech Turning carbon into ethanol – a major breakthrough in carbon reduction		
11:30am – 12:00pm	Dr Sean Weaver   CEO Ekos Carbon trading and markets		
12:00pm - 12:05pm	Break to set up discussion groups		
12:05pm – 12:40pm	Discussion Groups		
12:40pm – 1:00pm	Closing remarks		

### **PRICING**

Membership Status	Two Days   23 & 24 Sept 2020	Day One Only   23 Sept 2020	Day Two Only   24 Sept 2020
EIANZ Member	\$100	\$60	\$60
EIANZ Student Member	\$50	\$50	\$50
Non Member	\$200	\$110	\$110

# SPEAKERS DAY ONE | 23 September 2020



#### DR ROD CARR

Dr Carr has extensive experience in both public and private sector governance and leadership, and is the current Chairperson for the New Zealand Climate Change Commission. He served as Chair and non-executive director of the Reserve Bank of New Zealand and served as Deputy Governor and for a time Acting Governor of the Bank. Dr Carr was the founding Chair of the National Infrastructure Advisory Board and for over a decade was a non-executive director of the Canterbury Employers' Chamber of Commerce, and led the University of Canterbury as Vice Chancellor for ten years.



#### DR DAVE LOWE

Dave Lowe had an early interest in environmental, atmospheric and oceanographic sciences which led to him completing Physics honours and Masters degrees at Victorian University, and a PhD in atmospheric chemistry at the University of Cologne in Germany. Dave has worked at several international scientific institutes including the Kernforschungsanlage, Jülich, NIWA in Wellington New Zealand, the US National Center for Atmospheric Research in Boulder Colorado and the University of California in San Diego, where he is a visiting scholar and for University of Heidelberg's institute of Environmental Physics.

From 2004 to 2007, he was one of two New Zealand lead authors on the United Nations IPCC 4th assessment report on climate change working group 1 "The physical science basis". For ground breaking contribution to human knowledge on climate change science, contributors to this report were jointly awarded the 2007 Nobel peace prize.



#### MR MIKE SMITH

Mike has a background in indigenous rights and Maori community development and over 40 years experience as an activist and advocate in the areas of law, Treaty rights, environmental action and climate change.

Mike is a member of the National Iwi Chairs Forum and as the chairperson of the Climate Change Iwi Leaders Group, Mike champions Māori efforts to support the development of collective solutions, reducing greenhouse gases and accelerating Māori resilience to climate change.



#### MR JOHN CARNEGIE

John is the Chief Executive of PEPANZ, a role he took up in December 2019. He was previously the Executive Director of the BusinessNZ Energy Council and has nearly three decades experience in public policy and energy markets, specialising in energy, climate change and resource management policy.

He leads PEPANZ's advocacy for evidence-based policies to make New Zealand a better place, ensuring we have sustainable, affordable and reliable energy.

# SPEAKERS DAY TWO | 24 SEPTEMBER 2020



#### MR CHRIS LIVESEY

Chris is an ecological economist and forester who worked for more than 20 years for both the New Zealand and Australia governments on developing policies to mitigate GHG emissions. He is currently going through the process of registering his own commercial forest in the NZ Emissions Trading Scheme (ETS) and post-harvest, plans to transition it to a multi-species, continuous-cover forest. He is also heavily involved with two ecological forest restoration projects in Wellington that are to be registered in the ETS and with a forest conservation project in the western Ruahine Ranges.



#### MS MICHELLE SANDS

Michelle leads the Natural Resources and Environment team at Horticulture New Zealand. Her focus is to draw on technical experience to provide policy advice that is informed by science.

Michelle's background is in hydrology and water quality and she has led the development of catchment scale models to inform catchment limit setting and allocation policy. She also has experience in the design of water quality treatment devices and flood management.



#### DR CANDIDA SAVAGE

Candida Savage is a Senior Lecturer in the Department of Marine Science at the University of Otago, Dunedin, New Zealand. Candida's research draws on interdisciplinary approaches in ecology and biogeochemistry to understand drivers of ecological structure and functioning and the role of humans in shaping changes to marine systems. Her research in New Zealand Fiordland highlighted that fjord sediments are hotspots of carbon sinks, with carbon burial rates twice as large as the ocean average and account for 11% of annual marine carbon burial.



#### DR SEAN SIMPSON

Dr. Sean Simpson is a Co-founder and Chief Scientific Officer of LanzaTech, a global leader in gas fermentation. Dr. Simpson has over 20 publications and 130 patents. He has received a number of awards including the 2015 US Environmental Protection Agency (EPA) Presidential Green Chemistry Award, the 2014 Sanitarium, NZ Innovator of the Year Award, and the 2013 Kea NZ World Class New Zealander in Science Award.



#### DR SFAN WFAVER

Sean is founder and CEO of Ekos - a social enterprise focusing on market-based mechanisms for climate change solutions, environmental protection and sustainable development. Sean is an expert in environmental financing with extensive experience in indigenous forest carbon markets in New Zealand and internationally. He is a forest carbon financing consultant to national governments (NZ and Pacific Islands), local governments (Hawke's Bay Regional Council, Ruapehu District Council, Nelson City Council, Tasman District Council, Christchurch City Council, Environment Canterbury), multilateral banks (World Bank, African Development Bank), small medium and large businesses.

