Preliminary Programme as at 26 June 2023

DAY 1: TUESDAY 27 JUNE 2023

Te Papa Tongarewa, Wellington

TE RADAR | CONFERENCE MC *Te Radar appears by arrangement with Johnson & Laird Management*

8.00am	**Registration and Coffee** **Oceania Outer, Level 3**		
	Session 1 |Conference Opening and Welcome **Amokura Gallery, Level 4**		
9.00am	**Mihi Whakatau** **PETER JACKSON**		
9.10am	**Welcome and Housekeeping** **TE RADAR | MC**		
9.15am	**Welcome to Wellington** **MAYOR TORY WHANAU | MAYOR OF WELLINGTON**		
9.20am	**Welcome from CEP** **CEP BOARD MEMBER/MIKE HOPKINS**		
9.25am	**Platinum Sponsor Welcome** **MARCUS BAKER | MANAGING DIRECTOR, APRICUS**		
	Keynote Speaker Introduction **SPONSORED BY SHAPE** **JOHN GELL | BUSINESS DEVELOPMENT MANAGER, SHAPE**		
9.30am	**What Could Go Right: Designing Our Ideal Future to Emerge From Continual Crises to a Thriving World** **JUSTIN BEAN** With all the doom and gloom surrounding us in the news and our stories of the future, it's not easy to feel hopeful about the future. But we live in one of the most empowered times in human history to rise to the environmental and social challenges we face, and realize immense opportunity in the meantime to thrive like never before. By envisioning what could go right, we can give ourselves a world to work towards, leverage tech and social trends to find opportunity, and help achieve a sustainable and ethical world.		
10.30am	**Enabling Resilient Decarbonisation Through Electrification** **JOHN CLARKE | GENERAL MANAGER – GRID DEVELOPMENT, TRANSPOWER** The transition towards much greater electrification of the economy presents many opportunities and challenges for the electricity sector in NZ. Recent extreme weather events have demonstrated the need to build for resilience as well, whilst managing the pace and scale of energy transformation required to meet net zero goals. In this presentation, John Clarke, GM Grid Development shares the perspective of Transpower, NZ's grid owner and system operator, on enabling resilient decarbonisation through electrification.		
10.55am	**MEET THE EXHIBITORS**		
11.10am	**Morning Tea, Networking, Industry Exhibition** **Oceania Outer, Level 3**		
	Session 2a | **Amokura Gallery, Level 4**	**Session 2b |** **Oceania South, Level 3**	**Session 2c | Workshop** **Oceania North, Level 3**
11.45am	**Gas Transition Plan** **ANDREW KNIGHT | CHIEF EXECUTIVE, GAS INDUSTRY CO** Gas Industry Co has worked alongside MBIE to develop the Gas Transition Plan, which sets out potential pathways to drive emission reductions from natural gas. The Gas Transition Plan will be a key input into a broader Energy Strategy. Gas Industry Co Chief Executive Andy Knight, will talk through the draft Gas Transition Plan and explain the hypothetical transition pathways outlined to decarbonise the gas sector.	**Decarbonising Primary Industries with Geothermal – Risk vs Reward** **CELIA WELLS | SOCIO-ECONOMIC POLICY SPECIALIST – CLIMATE AND ENERGY, GNS SCIENCE I TE PŪ AO** Energy use in agriculture and food still relies on fossil fuels, with relatively limited penetration of renewables in these sectors to date. New Zealand has an abundance of geothermal resource and there is significant potential to decarbonise parts of the primary sector with geothermal direct-use. This talk will focus on the opportunity for geothermal direct-use in primary sectors across New Zealand, international case studies where regulatory interventions have supported uptake, and work underway to replicate these initiatives here. The obstacles are not insurmountable and investments are worth exploring in the larger effort of making New Zealand's primary sector more sustainable.	**Local Authority Workshop** **JAKE ROOS | ACTING MANAGER CLIMATE CHANGE, GREATER WELLINGTON TE PANE MATUA TAIAO** **ANJANA KRISHNAN | ENGINEER, METIS CONSULTANTS LIMITED** **TRACEY HALE |SUSTAINABILITY ADVISER, WHANGAREI DISTRICT COUNCIL** This workshop will explore what local government can do to show leadership with greenhouse gas emissions reduction, using examples from three different organisations: Anjana Krishnan will relate how Westminster City Council in the UK worked with contractors to measure the embodied carbon their scheduled roading works. Tracey Hale will explain the climate change consideration processes used at Whangarei District Council. Jake Roos will cover Greater Wellington Regional Council's carbon reduction programme for achieving 'climate positive' status for their organisation (including the public transport system, council-controlled organisations and investments) by 2035. In break out groups we'll discuss how the ideas could be applied at our organisations, and share related examples of our own work.
12.30pm	**HON DR MEGAN WOODS | MINISTER OF ENERGY AND RESOURCES, MINISTER OF HOUSING, MINISTER FOR BUILDING AND CONSTRUCTION, MINISTER FOR INFRASTRUCTURE, ASSOCIATE MINISTER OF FINANCE, LABOUR PARTY**		
12.50pm	**STUDENT PAPERS** **Energy Transition of Dairy Agriculture: Scenario Analysis and System Concept Engineering - With Case Study in Canterbury, New Zealand | SAM MURPHY** **Accelerating Sustainable Change in Aotearoa's Existing Housing Stock: Understanding Retrofit Strategies to Improve Thermal Performance and Climate Change Resilience | ELOISE BLEWDEN** **Carbon Footprint of Open Cut Pipelines (NZ Context) | KEVIN MANALO** **Forecasting Indoor Environmental Parameters using Recurrent Neural Networks |BASTIEN SALLABER** **A Comparative Assessment of LCA Software using Standardised Inputs | JOSEPH GONG** **Perspectives on the Reduction of Carbon Footprint in the Building Sector | SATEESH KUMAR PISINI**		
1.15pm	**Lunch, Networking, Industry Exhibition** **Oceania Outer, Level 3**	***Proudly Sponsored by*** LUMEN	
	Session 3a | **Amokura Gallery, Level 4**	**Session 3b |** **Oceania South, Level 3**	**Session 3c | Workshop** **Oceania North, Level 3**
	Sponsor Introduction **CLAIRE FAULK | MANAGER, EQUIPMENT REPLACEMENT SCHEME, EECA**		
2.00pm	**Having a Transparent Debate about the Energy Transition** **GEOFF SIMMONS | CHIEF ECONOMICS ADVISER, OFFICE OF THE PARLIAMENTARY COMMISSIONER FOR THE ENVIRONMENT** The transition to a low emissions economy represents the largest step change in electricity infrastructure that Aotearoa New Zealand has seen in over 40 years. Right now we face many important choices that will determine the pathway to achieving this goal. The pathway we choose will bring long lasting impacts for energy consumers and the environment alike. It should be debated openly and transparently.	**Challenges and Practical Solutions in Decarbonisation Projects** **GLEN SMITH | COMMERCIAL MANAGER, AIRTECH** A successful decarbonisation project requires overcoming challenges throughout the concept, design or construction phases. This presentation is focused on illustrating previously encountered issues and how these were overcome – citing experience from previous local projects. The aim is to provide references, points to consider and examples to attendees planning, or considering, similar projects, so they can benefit from these experiences.	**Financing Workshop** **Financing Workshop** **STEVE DIXON | ESG SPECIALIST, ANZ** **NICKI SUTHERLAND | GENERAL MANAGER, INVESTMENT AND ENGAGEMENT, EECA** **PAT HOULT | SENIOR MANAGER BUSINESS, ANZ**

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2.30pm	**GIDI's Evolution – How the Government Response is Evolving to Address Barriers to Investing in Decarbonisation** **NICKI SUTHERLAND | GENERAL MANAGER, INVESTMENT AND ENGAGEMENT, EECA** Government's GIDI Fund turns 3 in October 2023 and in this time we are seeing the kernels of real progress on climate change. But many of the barriers for businesses who want to decarbonise are unchanged – such as understanding about technological opportunities, financial gaps, shortages in industry skills and capability, and ease of accessing grant funding and other support. What has government done to respond to these barriers and is there more we can do? This session will outline how EECA has intentionally responded to some of these barriers, remaining key challenges, and ask for feedback on your ideas.	**Decarbonisation in the Built Environment** **GIAN RAFFAINER | GM CEMENT INDUSTRIAL, GOLDEN BAY CEMENT** Construction is a major growth sector around the world, with approx. 60% of infrastructure required by 2050 still to be built. If we continue to build the way we have always built, we will surpass the planet's boundary as construction represents 40% of emissions, resources, waste, and energy. Innovation in materials and building is key to stopping this. Fletcher Building's Concrete Division is focussed on working to decarbonise and create circular solutions through the value chain. This presentation will discuss in detail how Golden Bay have achieved their significant reductions in carbon, and how they will continue to decarbonise to deliver carbon zero cement by 2050, what this means for the decarbonisation of concrete and opportunities for biomass and other waste streams as an energy source.	**CARA ASKEW | BTune® DELIVERY MANAGER AND DEPLOYMENT SPECIALIST, BECA** **SCOTT NOYES | SYSTEMS AND SERVICES MANAGER, SIGNIFY** In this workshop Pat Hoult (ANZ) will cover the broad sustainable finance view, where banks fit into this, what they can offer and what they need from businesses to be able to help Nicki Sutherland (EECA) will discuss what EECAs role is in financing projects, what's currently on offer, what's coming and for who. What does EECA need to see from businesses (and their consultants) to enable it to fund projects. Scott Noyes (Signify) looks into what are Energy Performance Contracts (EPCs), what are the different models, where do they work best, where do they not work and what's required for success. Cara Askew (Beca) will take a deeper dive into the shared savings financing model and the importance of data in delivering a successful EPC.
3.00pm	**A Quarter of Our Energy Could be Coming From Bioenergy by 2050** **BRIAN COX | EXECUTIVE OFFICER, BIOENERGY ASSOCIATION OF NEW ZEALAND** The transition to a decarbonized circular bioeconomy is encouraging new thinking with regard to energy supply resilience and this is opening new business opportunities which can address Transpower's concerns about winter electricity supply security. Some people feel swamped by the changes in the energy market so it is important that we develop a sound Energy Strategy. Even today information and "facts" more than nine months old should be considered history. The bioenergy and biofuels sector is a case in point. In the last decade bioenergy has gone from being a way for getting rid of sawmill waste by producing kiln heat, to being a main-stream source of energy for many industrial plant, or space heating for universities, schools and hospitals.	**Demand From the Industry – Energy Performance Transparency for Buildings to Drive Decarbonisation** **BOBBY SHEN | SENIOR MANAGER FOR EXISTING BUILDINGS, NEW ZEALAND GREEN BUILDING COUNCIL** Time and time again, the NZGBC hears from industry players that there needs to be accessible methods for fairly comparing the performance of buildings and using this to reduce carbon. There are major changes in train to how the performance of our buildings are being measured and a significant gearing up on regulation for the measurement of energy use. The NZGBC is in a privileged position as the hub of the sustainability movement for the property sector in NZ, with all parts of the sector and government talking to our team about their decarbonisation journeys. Existing buildings are an enormous opportunity for reducing the carbon of the property sector which makes up 10% of NZ's total greenhouse gas emissions.	
3.30pm	**Afternoon Tea, Networking, Industry Exhibition** **Oceania Outer, Level 3**		
	Session 4 | Panel **Amokura Gallery, Level 4**		
4.00pm – 4.45pm	**GLEN BENNETT | MEMBER OF PARLIAMENT FOR NEW PLYMOUTH, LABOUR PARTY** **SIMON COURT | MEMBER OF PARLIAMENT – SPOKESPERSON FOR ENVIRONMENT, CLIMATE CHANGE, INFRASTRUCTURE, TRANSPORT, LOCAL GOVERNMENT, ENERGY AND RESOURCES, ACT PARTY** **HON JULIE ANNE GENTER | MEMBER OF PARLIAMENT - SPOKESPERSON FOR TRANSPORT, ENERGY AND RESOURCES, FINANCE, URBAN DEVELOPMENT, BUILDING AND CONSTRUCTION, INFRASTRUCTURE AND STATE OWNED ENTERPRISES, GREEN PARTY** **SIMON WATTS | MEMBER OF PARLIAMENT, SPOKESPERSON FOR LOCAL GOVERNMENT, REGIONAL DEVELOPMENT, CLIMATE CHANGE, STATISTICS ASSOCIATE SPOKESPERSON FINANCE, INFRASTRUCTURE, NATIONAL PARTY**		
4.45pm	**The Electrification of Everything** **MIKE CASEY | CO FOUNDER AND CEO, NEW ZEALAND ZERO AND OWNER/OPERATOR, FORREST LODGE ORCHARD** Hear the story of how Mike Casey built the world's first zero fossil fuel, 100% electric farm. Mike is a former software engineer and tech startup founder that threw in the towel on big city life, to have a go at decarbonising the primary industry through his passion for technology. Mike moved back to New Zealand from Sydney, having sold his tech startup in 2019 and invested in a farm in Central Otago. The goal was to become a living breathing demonstration on how to decarbonise and electrify food production to increase efficiency and profits. Mike is here to share the story and all his numbers, because the only way we will truly enable change is to provide irrefutable evidence by example and complete fiscal transparency.		
5.20pm	**Day's Wrap and Invitation and Welcome to Cocktail Function** **DAN TOMLINSON | HEAD OF MARKETS AND PARTNERSHIPS, ESP**		
5.25pm – 7.20pm	**Cocktail Function** **Oceania Outer, Level 3**	***Proudly Sponsored by*** ESP	

DAY 2: WEDNESDAY 28 JUNE 2023 **Te Papa Tongarewa, Wellington**	
7.30am	**Registration and Coffee**
8.00am	**Carbon and Energy Professionals New Zealand Annual General Meeting – Open to CEP Members Only** **Oceania North, Level 3**
	Session 5 | **Amokura Gallery, Level 4**
9.00am	**Housekeeping** **TE RADAR | MC**
	Keynote Speaker Introduction **Sponsored by Beca** **TOM KELLY | DIRECTOR – SUSTAINABILITY (HANDPRINT), BECA**
9.10am	**Principles for Resilient Infrastructure** ***Proudly Sponsored by:*** Beca **LIZ VARGA| PROFESSOR, HEAD, INFRASTRUCTURE SYSTEMS INSTITUTE, UNIVERSITY COLLEGE LONDON** The presentation describes the six principles for infrastructure resilience after providing some definitions and describing the systems approach used to develop the principles. Some of the 33 key actions which describe what must be done to achieve the principles are described with examples. The expected outcomes of infrastructure resilience are covered showing that resilience is a dynamic property of infrastructure which is increasingly difficult to achieve because of challenges such as climate change, interdependent and aging systems, skills shortages, etc. To implement the principles, a framework is also presented which will enable nations to engage stakeholders, measure progress on resilience and create an action plan suited to the national context. The action plan will provide the means to obtain funding and meet the ambition of the nation for infrastructure resilience.
9.55am	**The Role of Innovation in Delivering a Resilient Future** **CRISTIANO MARANTES | CHIEF EXECUTIVE, ARA AKE** Ara Ake is developing a Community Energy How-to Guide that will assist communities across Aotearoa in successfully developing and deploying their own energy projects. The guide is informed by the theory, practical implications and lived experiences of communities in Aotearoa. This includes the commercial and regulatory environment, but also cultural understanding including te ao Māori. The end goal is to enable future projects to be implemented with lower or zero subsidy. To accomplish this, all aspects of a project need to be addressed from energy use and balance, technology choice, supply chain, financing options, community engagement and leadership, to negotiations with third parties such as installers, lines companies, retailers and regulators.
10.25am	**The Development of "HazardAware"** **MELANIE GALL | CO-DIRECTOR, CLINICAL PROFESSOR, CFM, CENTER FOR EMERGENCY MANAGEMENT AND HOMELAND SECURITY, ARIZONA STATE UNIVERSITY** This presentation describes the development of "HazardAware", an interactive website that allows the public and community decision-makers to learn about housing-related natural hazard risks and mitigation options along the U.S. Gulf coast. The web application connects coastal residents to risk and resilience information. The project's overarching goal is to leverage actionable information on disaster risk and mitigation alternatives in pursuit of housing as the first line of defense against natural hazards.
10.55am	**Morning Tea, Networking, Industry Exhibition** **Oceania Outer, Level 3**

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	Session 6a | Amokura Gallery, Level 4	Session 6b | Oceania South, Level 3	Session 6c | Workshop Oceania North, Level 3
11.25am	**VERBREC TO INTRODUCE THE BIOENERGY SESSION** **PETER MAY| GENERAL MANGER, VERBREC NZ**	**A 1.5° World Can Only be a Circular World** **DEBBIE O'BYRNE | PRINCIPAL CIRCULAR ECONOMY, BECA** Previous efforts to combat climate change have focused on the critical role of renewable energy and energy-efficiency measures. Though crucial and wholly consistent with a circular economy, these measures can only address 55% of emissions, the remaining 45% comes from producing the electronics, cars, clothes, food, and other products we use every day. **But the global economic landscape is changing**. "*A 1.5° degree world can only be a circular world*" is a concept gaining significant traction across the globe. There is a growing acceptance that climate change and material use are closely interlinked and post-Covid there is a recognition that while long complex supply chains are hyper-efficient, they have poor resilience to shocks and disruption. Research has found that the **circular economy has the potential to increase resilience** to the physical effects of climate change. By keeping materials in use in multiple cycles businesses can reduce emissions and decouple economic activity from the consumption of raw materials, many of which are vulnerable to climate risks. There is also growing interest in distributed manufacturing where design is centralised but manufacturing is moved closer to where goods are consumed reducing reliance on overseas production. **Embracing a circular economy is a fundamental step towards achieving climate targets** moving beyond efforts to minimise emissions in an extractive linear system. We need to **embrace systems thinking** mindsets to **understand the inter-relatedness of these systemic issues** to sculpt responses to the climate crisis that reduce emissions and increase resilience to its effects. **Wider benefits** include creating more liveable cities, distributing value more widely in communities, growing more localised economies and spurring innovation. Learn how the circular economy is a potent enabler to achieving a decarbonised and resilient future.	**Heat Pump Workshop** **JONATHAN POOCH | FOUNDER AND MANAGING DIRECTOR, DETA CONSULTING** **JACK YOUNG |ENGINEERING MANAGER, ENERGY NZ** **GLEN SMITH |COMMERCIAL MANAGER, AIRTECH NZ LIMITED** **CRAIG DUFF | FOUNDING DIRECTOR, ACTIVE REFRIGERATION** In this workshop, some of NZs most experienced heat pump specifiers, integrators and installers will be presenting an overview of: • The major issues impacting successful deployment of high temperature heat pump technologies • Areas where high temperature heat pumps should be deployed and strategies for ensuring economic outcomes • Case studies highlighting the good, the bad and the ugly This is an opportunity for you to bring your questions, queries and experience – asking the experts the difficult questions for you to get your heat pump projects implemented successfully.
11.30am	**Biomass** **REBECCA LARKING | CHIEF OPERATIONS OFFICER, GENESIS** Biomass at Huntly was first investigated over a decade ago. Since then, several technologies and fuels have been assessed, with fuel selection being the single most important factor. Rebecca Larking, COO will provide some of the technical detail relating to the biomass trial undertaken earlier this year, share lessons learnt and talk about next steps with biomass. Huntly Power Station has continuously innovated and adapted to meet anticipated needs of NZ and is an exciting energy location of the future.		
11.55am	**Closing the Loop – Transforming Organic Waste into Regionally Dispersed Gas Production Through Biogas** **TOM MEACLEM | PROJECT ENGINEER, DETA** Organic waste streams present a regionally dispersed energy source, which though anaerobic digestion can be converted into a high value thermal fuel – biogas. This presents an opportunity for industrial sites to gain security of energy supply and control over their own energy futures. By utilising process by-products, industrial sites can promote the principles of kaitiakitanga and the Sustainable Development Goals (SDGs).	**Climate Change Mitigation vs Adaptation – Priorities for Business** **BELINDA MATHERS | GENERAL MANAGER TECHNICAL, TOITŪ ENVIROCARE** When not leading Toitū's Science and Advisory team, Belinda is deputy team leader for a NZ Response Team and responded to Cyclone Gabrielle impacts in the Auckland region earlier this year. This has given her unique insights into the impacts of climate change on communities and businesses. Belinda will address the question of 'Should we focus on mitigation or adaptation?', giving insights on likely impacts of climate change on NZ businesses and some things to think about when planning for the future.	
12.25pm	**Bioliquids** **PAUL BENNETT | PORTFOLIO LEADER, INTEGRATED BIOENERGY, SCION** There are a lot of uncertainties around the deployment of liquid biofuels in New Zealand. This has been exacerbated by the recent cancellation of the Liquid Biofuels Obligation. However, they can play a major role in decarbonising transportation in the future but what is their potential role? What feedstocks and technologies should we be using? and which sectors should be targeted with these fuels? Are there any other factors that we need to consider such as sustainability of biofuels and the impact on engines.	**When the Quick Wins are Won: The Role of Continuous Commissioning in Commercial Building Decarbonisation** **HONG LEE | BUILDING OPTIMISATION MANAGER, ESP** Commercial property managers must juggle tenants needs with increasing pressures to improve building performance and meet sustainability goals. For many, work has already begun to meet these new demands, but how do property managers continue to provide value in the long term, once the quick wins are won? In this talk, we will explore the role of continuous commissioning - and the process of providing ongoing insights, upgrades and optimisations to a building - in meeting and surpassing the growing expectations on property owners, facilities managers and asset managers.	
12.55pm	**Lunch, Networking, Industry Exhibition** **Oceania Outer, Level 3**	***Proudly Sponsored by*** LUMEN	
	Session 7a | Amokura Gallery, Level 4	**Session 7b | Oceania South, Level 3**	**Session 7c | Workshop Oceania North, Level 3**
2.00pm	**Unleashing Decarbonisation Potential through Thermal Energy Metering: A Case Study of WoolWorks' Decarbonisation Journey** **ALELIGN GESSESE | PRINCIPAL ENGINEER, LUMEN** New Zealand's reliance on fossil fuel-based process heat systems significantly contributes to greenhouse gas emissions. However, the measurement of energy consumption at the supply level, such as tonnes of coal or GJ of natural gas consumed, offers limited insight into how, when, and where thermal energy is utilised within process heat systems. WoolWorks achieved full decarbonisation at their Timaru site through thermal energy meter installation, energy efficiency measures, demand reduction projects, and fuel switching projects. With the support of GIDI funding, they implemented heat recovery, a wastewater source high-temperature heat pump, and an electrode steam boiler, achieving decarbonisation by June 2023. Their sustainability efforts improved product quality, market acceptance, and business opportunities, reinforcing their reputation as a responsible exporter.	**Climate Action Initiative - Community Led Climate Mitigation Action with a Global Reach** **CARLY GREEN | PRINCIPAL CONSULTANT, ENVIRO ACCOUNTS** Not-for-profit WAO Aotearoa, along with partners Environmental Accounting Services, Queenstown Lakes District Council, Destination Queenstown and Lake Wanaka Tourism delivered the Climate Action Initiative (CAI); a community led program aimed to build capacity in understanding greenhouse gas emissions from tourism related businesses in the district. Through a series of group workshops, one-on-one discussion and support, more than 30 small business in the region were able to engage in meaningful planning for decarbonisation with a focus on collaboration, sharing experiences and acknowledgement of the scale of the challenge. This initiative sparked the momentum within the broader business community and now events and destination management plans within the region are including decarbonisation in long term planning.	**Bio Energy Workshop** **MARCUS BAKER | MANAGING DIRECTOR, APRICUS ECO HOT WATER & HEATING** **TOM MEACLEM |PROJECT ENGINEER, DETA CONSULTING** Join Marcus Baker, Apricus Eco and Tom Meaclem, Deta Consulting, for a solution focussed workshop on retrofitting biomass systems in existing commercial buildings for central heating, domestic hot water and process heat. We will detail the availability and energy density of existing and future biofuels in NZ, fuel handling and storage considerations, boiler output and space required, innovation in containerised plant rooms, when / if buffering is required, FM operational requirements, maintenance and system longevity.
2.30pm	**Behind the Meter Solar PV for Large Energy Users** **HARSHAL PATEL | BECA**	**Fletcher Building – A Case Study of the Impact of Science-Based Targets at a Large New Zealand Corporate**	

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	New Zealand along with most of the developed countries have committed to Net Zero emissions by 2050 and large energy users that currently source their energy needs from The first step to assessing if a behind the meter solar PV solution is right for your business is to undertake a feasibility study that considers factors such as; availability of ground/rooftop real estate, annual yield estimates, site demand offsets, payback periods, network integration and procurement options. Often, one of the key barriers to investment is the availability of upfront capital. Most organisational CAPEX budgets are allocated for core business operations with very little in the way for non-business critical spend. This paper will discuss in detail the steps required to assess feasibility of behind the meter solar. This includes key challenges, opportunities and procurement options to reduce upfront capital costs and improve attractiveness of investment to support emission reduction targets and lower cost of energy. carbon-based fuels will play a big part in achieving this target. Renewable energy sources such as solar and wind are now the cheapest forms of energy and there is tremendous opportunity for large energy users to explore behind the meter renewable generation not only offset Scope 2 emissions from purchasing power from the grid but to also lower the overall cost of energy. Behind the meter solar PV systems are starting to become popular due their technical and commercial maturity in the market which include ground mount and/or rooftop solutions. These systems may also include some form of energy storage to manage time of use and network stability.	**MICHAEL BURGESS | GROUP CARBON AND ENVIRONMENTAL PERFORMANCE MANAGER, FLETCHER BUILDINGS** Setting ambitious carbon targets can act as a significant catalyst for change within business. However, developing a roadmap to the goal is complex needs to be underpinned by solid management of fundamental environmental performance data and incorporation of sustainability initiatives into short- and long-term business planning cycles. This talk will discuss Fletcher Building's experience setting a science-based target (SBT), the resulting changes this has caused within the organisation and its effect on supply chain engagement.	
3.00pm	**The Climate Waits for No One** **ROD CARR | CHAIRPERSON, CLIMATE CHANGE COMMISSION** Transitioning to a thriving, climate-resilient low emissions Aotearoa New Zealand will require changes - where we live, how we get around, and how we earn a living. But with change comes opportunity - a low emissions future is likely to be less vulnerable to disruption, more affordable, healthier, and more sustainable than our current way of living. Increasing renewable electricity generation, growing the number of electric vehicles on our roads, moving away from coal, and reducing agricultural emissions are all positive signs. However, the Commission's analysis shows there is much more work to do, and the Government must broaden, strengthen, and accelerate climate action.		
3.30pm	**Afternoon Tea, Networking, Industry Exhibition** **Oceania Outer, Level 3**		
	Session 8 | **Amokura Gallery, Level 4**		
4.00pm	**Student Prizegiving**		
4.05pm	**Te Whatu Ora Energy Decarbonisation Programme** **DEBBIE WILSON | KAITOHUTOHU WHAKAUKA PRINCIPAL SUSTAINABILITY ADVISOR INFRASTRUCTURE AND INVESTMENT GROUP, TE WHATU ORA** This session will share details of the energy decarbonisation journey taken by Te Whatu Ora, Health New Zealand. Decarbonisation activities have been underway for well over a decade across the public health sector. At the beginning of the session, a brief overview will be provided of the context in which we operate, such as the current environmental situation with global warming and the social context described within the setting of the health sector. For example, attendees will learn how challenging and complex it is to make changes at a large hospital campus where operations cannot be shut down to make those changes, timing of interventions is therefore essential. These activities are underway to ensure the health sector complies with the Carbon Neutral Government Programme yet the positive benefits of uplifting the health outcomes of our people as a result of decarbonisation cannot be ignored. The main part of the discussion has been framed under three main discussion areas: State Sector Decarbonisation, Coal boiler transition and Energy Transition Programme (ETP). Examples of projects delivered within the first two focal areas will allow attendees to gain some insight into what work has been successfully rolled out and what will likely fall out of the third phase of this energy decarbonisation journey, the ETP.		
4.35pm	**The Importance of Increasing Flexibility in New Zealand's Energy Transition** **JAMES CARBERRY | SIMPLY – DISTRIBUTION GEN** The New Zealand government aims to grow the economy while meeting net zero carbon emissions, which requires increasing the flexibility of the electricity system to maintain supply and demand balance. Traditionally, supply-side controls have been used to maintain system stability, but demand-side flexibility, which enables consumers to adjust their electricity usage, is also necessary as more variable energy sources come online. Simply Energy, the country's only dedicated energy solutions provider for commercial and industrial sectors, will cover the importance of demand-side flexibility, its ability to reduce emissions and improve resilience, different types of flexibility, practical examples, and additional steps the government, networks, and industry could take to build grid stability.		
5.05pm	Conference Reflections / Wrap up		
5.10pm	**Conference Close**		

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