CEP2025
CONFERENCE
27th & 28th May
Grand Millennium Auckland

PRELIMINARY PROGRAMME
As at 9 April

DAY 1: TUESDAY 27 MAY 2025
Grand Millennium Auckland

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

8.00am	**Registration and Coffee** **Pre-Function Area, , Grand Ballroom Level**
	Session 1 | Conference Opening and Welcome **Millennium Ballroom, Grand Ballroom Level**
9.00am	**Mihi Whakatau**
9.10am	**Welcome and Housekeeping** **TE RADAR | MC**
9.15am	**Welcome from CEP** **CEP BOARD MEMBER / MIKE HOPKINS**
9.20am	**Welcome to Auckland**
9.25am	**The Psychology of Climate Change, Especially on Behaviour Change** **LORRAINE WHITMARSH | DIRECTOR, CENTRE FOR CLIMATE CHANGE & SOCIAL TRANSFORMATIONS (CAST)** ***Sponsored by*** Climate Connect Aotearoa
10.25am	**Introducing a Reliable and Verifiable Net Zero Pathway** **LUIS FILARDI | HEAD OF SUSTAINABILITY, BSI GROUP ANZ** There are many regulations and sustainability schemes, which can be confusing for organizations aiming for a systemic, credible, and achievable net zero plan. Accuracy and management of data, communication, board commitment, efficient governance and wider impact are essential elements to obtain compliance and stakeholder's needs. BSI has launched the Net Zero Pathway (IWA42) with ISO at COP27, which is one of the 60,000 standards it has designed since its inception. BSI will share case studies, benchmarking practices and details about how organisations can systemically manage their net zero projects, plans and sustainable actions. Delegates will understand how their operations can become aligned with trusted Net Zero plans, while compliant with disclosure regulations.
10.55am	**MEET THE EXHIBITORS – 2 MINUTES**

11.15am	Networking Break in the Industry Exhibition		
	Session 2a | Millennium Ballroom, Grand Ballroom Level	**Session 2b | Coromandel Room, Level 1**	**Session 2c | Workshop Aucklander Room, Ground Floor**
11.45am	**Emissions Reduction Planning** **RICK LOMAX | HEAD OF SUSTAINABILITY, TE WHATU ORA HEALTH NEW ZEALAND**	**5th Generation Heat Networks (5GHN)** **RICHARD FREEBORN | FOUNDER, THE KENSA GROUP** Richard will introduce 5th generation heating and cooling networks, including why you might want one and where you can buy them. He will feature details of the 68 house "Tewa Banks" community housing development in Arrowtown, opened by the Housing Minister in late November, which is probably the first 5th generation heat network in the Southern hemisphere.	**Product Emissions Workshop - Fuel** ***(limited to 25 people)*** **DUSTIN COURAGE | SCIENCE & ADVISORY, SECTOR LEAD, BUILT ENVIRONMENT & FINANCE, TOITŪ ENVIRONCARE** **ZOE BURKITT | HEAD, SCIENCE & ADVISORY DELIVERY, TOITŪ ENVIRONCARE**
12.15pm	**Advanced Data Analytics** **NIKK KING | DIRECTOR, OT SYSTEMS CONSULTANT, NZ CONTROLS LTD**	**Beyond the Hype: Real-World Lessons in AI for Energy Management** **HONG LEE | ENERGY CONSULTING LEAD, BRAVEGEN** **QUAN SUN | PRINCIPAL DATA SCIENTIST, BRAVEGEN** The proliferation of smart meters, expanding telecommunication networks, and rising client expectations have made data the backbone of modern energy and carbon management—yet simply collecting information is no longer enough. As datasets grow more granular and extensive, manual analysis quickly becomes infeasible, even as near real-time interventions, predictive maintenance, and detailed fault detection all become possible with robust data processing. These opportunities also introduce new challenges, including data quality issues, time-sensitive alerts, and the need for efficient workflows that turn insights into tangible action. Artificial intelligence holds tremendous promise in meeting these demands—but distinguishing genuine capabilities from marketing hype is difficult. In this presentation, we aim to provide energy managers and practitioners with practical insights into the current state of AI for energy management. We will set the scene with a quick primer on relevant AI and machine learning techniques—from	

		anomaly detection to large language models like ChatGPT. We will then introduce examples of AI deployments within the energy efficiency and carbon management realms and discuss what we can learn from these examples and how to separate real-world applications from excessive hype. We will then showcase a case study detailing the development, testing, and deployment of our own AI tool, including the pitfalls we encountered and the tangible benefits we achieved in terms of cost savings, energy reductions, and operational efficiencies. From there, we'll share the lessons we've learned about balancing human judgment with automated analysis, setting realistic expectations for AI's capabilities, and anticipating future developments such as expanded automation and new systems integration. Finally, we will offer our view on what AI and related technologies have offer for energy management and carbon reduction in the next few years.	
12.45pm	**STUDENT PAPERS**		
1.15pm	**Networking Lunch Break in the Industry Exhibition**	***Proudly Sponsored by:*** LUMEN	
	Session 3a | Millennium Ballroom, Grand Ballroom Level	**Session 3b | Workshop Coromandel Room, Level 1**	**Session 3c | Workshop Aucklander Room, Ground Floor**
2.30pm	**EECA Position and Strategy**	**Electric Boiler Workshop** ***(limited to 25 people)*** **JONATHAN POOCH | MANAGING DIRECTOR, DETA GLOBAL** **ALELIGN GESSESE | ENERGY LEAD, LUMEN** This workshop explores the different types of electric boilers such as hot water vs steam and electric vs electrode. It covers key feasibility considerations such as efficiency first, thermal metering, electrical capacity upgrades, water quality and treatment, and installation requirements. The session also dives into optimising the economics of electric boilers, focusing on minimising capital expenditure through solutions such as hybrid systems, N electrical redundancy (instead of N - 1), and thermal storage. Additionally, participants will learn strategies to	**Deep Conversations About Scope 3 – Materiality, Reduction Strategies, Engagement** ***(limited to 25 people)*** **EMMA ELBAUM | MANAGING CONSULTANT, SLR CONSULTING** **CHEILO MANALO | SENIOR SPECIALIST, AUCKLAND COUNCIL** **MARTA KARLIK-NEALE | PRINCIPAL SUSTAINABILITY & RESILIENCE, TONKIN + TAYLOR** **KEVIN MANALO | ASSOCIATE, ALTA** Join this interactive workshop to explore the complexities of Scope 3 GHG emissions. Participants will first hear about three case studies: • port sector guidance materiality assessment process, • using a framework for Scope 3 emissions reductions, and
3.00pm	**TBC**		
3.30pm	**From Consumer to Prosumer: Sharing the Benefits of Rooftop Solar Energy** **MOONIS VEGDANI | GROUP CHIEF STRATEGY AND TRANSFORMATION OFFICER, COUNTIES ENERGY** **SARAH ANDERSON | PROGRAMME DIRECTOR, CLIMATE CONNECT AOTEAROA** Counties Energy's Group Chief Strategy and Transformation Officer Moonis Vegdani will overview an ambitious and innovative energy-sharing pilot in Auckland's Franklin region, which will test how households and businesses generating		

	solar electricity can share or gift excess energy to others. Programme Director of Climate Connect Aotearoa, Sarah Anderson, will discuss the key role of collaboration – between Counties Energy, Ara Ake and other partners - in bringing this pilot to life. Together, they will unpack the potential of energy-sharing to empower communities and accelerate Aotearoa New Zealand's energy transition.	reduce operational costs, including solutions such as spot market exposure, leveraging retailer special rates and PPAs, and participating in demand flexibility markets.	• Auckland Council Healthy Waters embodied carbon strategy. Speakers will then facilitate small group discussions to answer strategic questions on Scope 3 emissions, with all attendees having the opportunity to participate in each discussion.
4.00pm	**Networking Break in the Industry Exhibition**		
	Session 4 | Panel **Millennium Ballroom, Grand Ballroom Level**		
4.30pm	**The Value of Sustainable Buildings – The Realised Benefits of Rating Energy Efficiency in Sales/Rental Value** **NZGBC** Commercial buildings in Aotearoa New Zealand are a great opportunity to continuously decarbonise, not only reducing emissions and energy use, but also to create more resilient buildings. The electricity grid also benefits from the lower demand from buildings when they are more efficient. NABERSNZ and Green Star Performance are tools that enable building owners, their property managers, and tenants to understand how their energy consumption compares to others via a benchmark. As third-party verified tools, they are well received by the finance sector; banks and investors are hungry for green assets to fulfil their own climate goals and there are benefits offered to those who verify their building's energy performance. Bobby Shen, the Senior Manager of Existing Buildings at the NZGBC has worked with the finance sector over the last few years to develop more streamlined ways for decarbonised properties to access green capital via the NZGBC's 'Guidance on Green Building Ratings for Sustainable Finance'. There has also been some insightful research on the transaction records of building sales and rentals in JLL's 'Turning Green to Gold' report which show an uplift of sales and rental value for buildings that are rated to a high standard. Come to this session to learn about: - What a 'green building' looks like in our current and future years as we process toward Aotearoa's climate goals - How people have been deriving benefit from rating their buildings with rating tools, Green Star, NABERSNZ and others - What the research shows is the 'green premium' of buildings with sustainability ratings - How these value incentives are driving continuous improvement and electrification across many NZ property portfolios The NZGBC is a not-for-profit whose purpose is 'all homes and buildings in Aotearoa are green and sustainable, making healthier, happier New Zealanders.' Bobby Shen brings a background in architecture and sustainability, passionate about the improvement of buildings. As Senior Manager of Existing Buildings his role is to assist the industry in meeting Aotearoa's sustainability goals through their existing building portfolios.		
5.00pm	**Keynote - Virtual** **PETER SWEATMAN | CHIEF EXECUTIVE & FOUNDER, CLIMATE STRATEGY & PARTNERS**		
6.00pm	**Ministerial Address** **HON SIMON WATTS**		
6.20pm	**Day's Wrap and Invitation and Welcome to Networking Drinks**		
6.20pm – 8.00pm	**Networking Drinks in the Industry Exhibition** ***Proudly Sponsored by: Tonkin + Taylor***		

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DAY 2: WEDNESDAY 28 MAY 2025
Grand Millennium Auckland

8.30am	**Registration and Coffee**	
	Session 5 | **Millennium Ballroom, Grand Ballroom Level**	
9.00am	**Housekeeping** **TE RADAR | MC**	
	Session 6a | Workshop **Millennium Ballroom, Grand Ballroom Level**	**Session 6b| Workshop** **Aucklander Room, Ground Floor**
9.05am	**New Zealand's Pathway to 110% Renewable Electricity Generation by 2035** **AL YATES | CEO AND CO-FOUNDER, ECOTRICITY** New Zealand's official renewable electricity generation target is 100% by 2035, but we believe the country should be shooting for 110%. By having an oversupply of renewable energy, we can provide grid security when renewable assets underperform, and this will ultimately bring down the cost of electricity for everyday consumers. Achieving this goal will require a shift in industry mindset, innovative use of existing assets, and significant investment in emerging technologies. This presentation will explore key strategies to enable this transition, drawing on global examples and local opportunities. A crucial element is the transformation of the electricity sector's mindset. By examining rapid solar deployment in China and other leading markets, we can adopt best practices to accelerate our own transition. New Zealand is currently lagging in rooftop solar adoption, with only 3% penetration compared to an OECD average of 20%. We must reassess our policy settings to drive significant growth in this area. Wind and solar generation must expand significantly to meet growing energy demand. Distributed generation, particularly rooftop solar, can enhance both grid and consumer resilience in the face of increasing climate-related disruptions. Furthermore, the integration of home solar batteries and vehicle-to-grid (V2G) technologies can play a critical role in flattening daily energy demand peaks, reducing reliance on fossil fuel-based generation during peak periods. Once our renewable energy assets have expanded and technology adoption has increased, we can transition our hydroelectric assets from daily use to functioning as intra-seasonal energy storage, optimizing water usage to balance seasonal variability. This presentation will outline practical pathways to achieving 110% renewable electricity generation, considering policy frameworks, investment opportunities, and technological advancements. By adopting a forward-thinking, multi-faceted approach, New Zealand can not only meet but exceed its energy goals, enhancing global competitiveness. Achieving 110% renewable generation would position New Zealand as an attractive destination for industries seeking to decarbonize, such as aluminium smelters and data warehouses, further boosting economic growth.	**Product Emissions Workshop - Food Products** ***(limited to 25 people)*** **ALIREZA MOKHTAR | ENERGY & CARBON CONSULTANT, PATHWAY2050** **ABBAS TAMADON | LEAD OF LCA & CIRCULAR ECONOMY, PATHWAY2050** The CEP conference workshop, hosted by PathWay2050, will focus on life cycle assessment and product carbon footprint of food products. In 60 minutes, participants will explore these concepts through a case study in New Zealand's food industry, engaging in collaborative assignments and teamwork. This interactive session aims to enhance understanding of sustainability metrics and their practical applications within the industry, fostering skills to practically assess environmental impacts. Join us to learn, collaborate, and contribute to a greener future.

	Why this topic is of interest and value to delegates: The transition to 110% renewable energy in New Zealand is a timely and pressing issue for industry professionals, policymakers, and energy consumers alike. This presentation will provide delegates with actionable insights into how mindset shifts, policy evolution, and technological innovation can drive the transformation of our energy sector. The session will also highlight the role of emerging technologies, especially utilizing home solar batteries and EV-based V2G systems in ensuring grid stability and energy affordability. Given the increasing frequency of climate-related disruptions, as well as the instability of energy pricing, understanding how distributed energy resources can enhance resilience, referencing projects and trials already taking place within NZ and globally, will be of critical interest to delegates. We are at a crossroads, both within New Zealand, and globally in terms of the future for energy generation. We aim to showcase an alternative pathway that will transform New Zealand into a green energy destination. Attendees will leave with a clearer understanding of the opportunities and challenges associated with achieving 110% renewable generation, equipping them with the knowledge to contribute meaningfully to New Zealand's energy future.		
9.35am	**On the Grid - How the Electricity Grid is Enabling Decarbonisation** **MATT WEBB | EXECUTIVE GENERAL MANAGER GRID DEVELOPMENT, TRANSPOWER** Transpower is the national transmission power grid provider for Aotearoa. Transpower's nationwide grid can provide a boost to renewables adoption via connection of the large number of currently proposed renewable wind and solar developments but comes with a number of challenges if supply reliability and security are to be maintained for all customers during the transition to renewables. Matt Webb, Executive General Manager Grid Development will provide perspective on the areas focus areas for Transpower as well as insights from his previous role working on Renewable Energy Zone proposals in Australia.		
10.20am	**MEET THE EXHIBITORS – 2 mins each**		
10.45am	**Networking Break in the Industry Exhibition**		
	Session 7a | **Millennium Ballroom, Grand Ballroom Level**	**Session 7b |** **Coromandel Room, Level 1**	**Session 7c | Workshop** **Aucklander Room, Ground Floor**
11.15am	**Electrification in C&I** **JESS LOW | GENERAL MANAGER LARGE BUSINESS, GENESIS** **JEFF SMIT | GENESIS**	**Biogas: Is Bigger Always Better?** **EMMA REES | CHEMICAL AND PROCESS ENGINEER, BECA** **NATHAN HILL | COMMERCIAL ANALYST, POWERCO** in regions where similar industries dominate. With every challenge comes opportunity, and in this case the opportunities are plenty! In taking a	**Managing Climate Risk: A Practical Workshop for Businesses and Asset Owners *(limited to 25 people)*** **GUI BERRINGER | TEAM LEADER – BUSINESS SOLUTION TEAM, EKOS KĀMAHI** **JAMES HUGHES | TECHNICAL DIRECTOR: CLIMATE AND RESILIENCE, TONKIN + TAYLOR**

		collaborative approach to feedstock generation, there is the opportunity to increase the scale of biogas / biomethane production, share similar resources and utilities, engage wider community partners and co-ordinate to balance the feedstock provision. This presentation will assess the opportunity of feedstock co-operation for biogas development and discuss some the unique challenges to overcome. Powerco and Wood Beca will bring their particular perspectives to highlight how partnership drives for better outcomes.	Businesses and asset owners face increasing challenges in managing climate risk, as extreme weather events, rising temperatures, and shifting environmental conditions place growing pressure on essential services. At the same time, the transition to a low-emissions economy presents its own risks and opportunities, with regulatory changes, shifting market dynamics, and evolving stakeholder expectations reshaping investment and operational landscapes. This workshop will equip participants with the knowledge and tools to assess, plan for, and respond to both physical and transition climate risks. We will explore key frameworks for climate risk assessment, including scenario analysis and include some hands-on activities which will offer practical insights into effective climate risk management. By the end of the session, attendees will have a clearer understanding of climate-related risks which will support them in ensuring their assets and operations remain viable and fit for the future.
11.45am	**Port of Auckland - Transition to Electrification: Why, How, When and Future Resilience** **SIMONNE ELLIOT | SENIOR SUSTAINABILITY SPECIALIST, PORT OF AUCKLAND** Port of Auckland Limited (POAL) has charted a path for zero emissions by 2050 via electrification. Adopting this target required POAL to review its electrical masterplan, considering increased demand, climate related risks and resilience. This process identified several interesting challenges and opportunities that will be discussed in the presentation. POALs electrification and resilience journey has commenced with the operationalising of an electric tug and an electric container hoist, as well as the installation of a solar array, the learnings from which will also be discussed.	**TBC**	
12.15pm	**A Sustainable Future for Macrae's: The Role of Renewable Energy and Hydrogen in Mining and Post Closure** **DANIEL JELFS | ENERGY ENGINEER, OCEANA GOLD** This presentation explores how OceanaGold's Macraes Operation can transition toward renewable energy and green hydrogen to reduce emissions and improve energy efficiency. It assesses the feasibility of integrating solar and wind power, hydrogen production, and the use of its oxygen byproduct in ore processing. A staged implementation strategy is outlined, considering both operational benefits and post-mine closure opportunities. The session will	**A Practical Journey into New Zealand's First Commercial-Scale Anaerobic Digestion Facility and Its Role in the Renewable Transition** **ANDY BEDFORD | NORTH ISLAND MANAGER, ECOGAS** **SHAUN GOLDSBURY | CEO, BRAVETRACE** Ecogas' Reporoa commercial-scale Anaerobic Digestion (AD) facility is transforming 75,000 tonnes of organic waste annually into renewable electricity, biomethane, and biofertiliser. This session, led by Ecogas and BraveTrace, explores how biomethane supports the renewable transition, from production to certification. Learn about the AD process, its	

	also discuss economic viability, policy incentives, and how Macraes can serve as a model for sustainable mining in New Zealand. By leveraging these technologies, Macraes can contribute to national net-zero goals while ensuring long-term industry resilience.	environmental and economic benefits, challenges, and future opportunities—including the role of New Zealand Energy Certificates (NZ-ECs) in tracking and certifying renewable gas. Gain insights into New Zealand's decarbonisation journey and how innovative solutions like Ecogas are driving the circular economy.	
12.45pm	**Networking Lunch Break in the Industry Exhibition**	***Proudly Sponsored by:*** LUMEN	
	Session 8 | **Millennium Ballroom, Grand Ballroom Level**		
2.00pm	**Student Prizegiving**		
2.05pm	**AI Energy Demand and Sourcing** **ANDREW GREEN | DIRECTOR OF DATA CENTRES, DATACOM**		
2.35pm	**Space Weather** **ANDREW RENTON | SENIOR PRINCIPAL ENGINEER, TRANSPOWER**		
3.05pm	**Building Utility Scale Solar in New Zealand** **GARY HOLDEN | MANAGING DIRECTOR, LODESTONE ENERGY** The challenges, barriers and critical success factors to developing a 5% market share of large-scale solar generation that is directly sold to energy consumers. Mr. Holden will cover the financial challenges of raising debt, securing equity, the consenting process and the key methodologies of creating a credible long-term alternative to traditional electricity contracts.		
3.35pm	Conference Reflections / Wrap up		
3.40pm	**Conference Close**		

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