2025

IPS CONNECT

Cairns, Australia

PRESENTER BIOGRAPHIES

Suzanne Shipp, Energy Queensland

Welcome from Energy Queensland

Suzanne joined Energy Queensland as Chief Engineer in September 2025, leading engineering strategy and asset management across Queensland's critical electricity infrastructure serving millions. Her 30-year journey from military apprentice to C-suite executive spans diverse sectors including military, aviation, power generation, digital transformation, manufacturing, and energy transmission. During her diverse career, Suzanne has managed billion dollar energy infrastructure portfolios through leading large teams of professionals. This cross-industry experience shaped her executive perspective on managing complexity, mitigating risk, and driving impact at scale. Recently awarded Women in Industry Excellence in Energy 2025, Suzanne holds First Class Honours in Electrical Engineering, MBA, and is a Fellow of Engineers Australia. She's passionate about mentoring young engineers and serves on boards supporting veteran and community causes. Suzanne exemplifies how engineers can transition from technical contributors to strategic leaders shaping Australia's energy future.

DANE THOMAS, Energy Queensland

Ergon Isolated Networks Decarbonisation shifting strategy and focus

Isolated Network Manager with Ergon Energy, leads a team which is transforming the energy supply in 39 diverse and beautiful communities in the remotest parts of Queensland. Dane is passionate about supporting and enabling a bright future for these communities and sees clean, safe and reliable energy as a key. These ambitions have been further supported by the state governments with actions in Queensland Jobs and Energy plan. Over the past 5 years he has led the continual transition from reliance on diesel generation to decarbonisation through integration of renewable energy. In 2021 the team successfully took two communities to 80% instantaneous renewable energy in far western Queensland, through an innovative solar monitoring and control system. In 2023 the team is completing the design for taking four communities to 50+% renewable energy including operating in diesel-off mode. Dane lives in Townsville and enjoys spending time with his two daughters, ice bathing and mountain biking where he does his own stunts.

KEIN JONES, Energy Queensland

Ergon Decentralised Energy and Equity – sharing electron and community benefits

Kein Jones is a Senior Renewable & Generation Strategy Engineer at Ergon Energy Networks, specialising in the deployment and integration of battery energy storage systems (BESS) and decentralised energy solutions across Queensland's isolated networks. Kein has led multiple projects focused on advancing community energy equity, decarbonisation, and the transition from diesel to renewables in remote regions. With a background in engineering strategy and stakeholder engagement, Kein's work bridges technical innovation and practical outcomes for regional communities. At the IPS Conference, Kein will present on Ergon's approach to decentralised energy and equity, sharing insights into project delivery, community benefits, and lessons learnt from recent deployments.

SIMON VAN DER AA, Hydro Tasmania

Extending operational life through refurbishment on King Island – navigating challenges and opportunities

Simon has almost thirty years in electrical engineering and system integration, across a variety of industries but with a large amount of time in Power Generation. He has extensive experience in the high-penetration hybrid renewable systems on King Island and Flinders Island in Australia, both of which are capable of 100% renewable operation for multiple consecutive days. He has worked on all elements of the systems, including planning, design and implementation, and ongoing operations.

His current focus is on options for renewal, as many elements of the system on King Island are starting to come to the end of their useful life. This is throwing up a number of challenges around what is best for all stakeholders, in what is a rapidly changing environment.

He graduated with a Bachelor of Mechanical/Electrical Engineering from the University of Tasmania in 1994, and after travelling the country and working overseas, he returned to Tasmania in 2001. Besides working in energy, he has experience in water treatment, oil and gas, pharmaceuticals and manufacturing.

ALAN ZORKOT, Amplitude Consultants

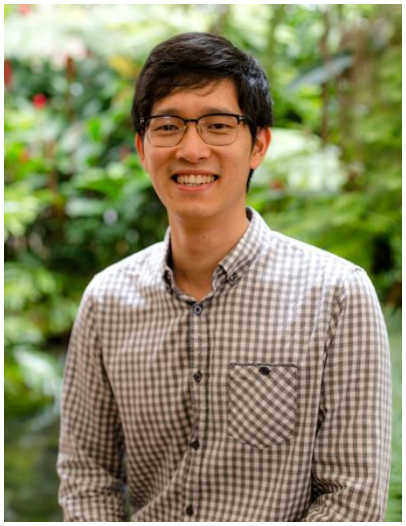
A Guide for the Conceptual Design of Microgrids – Lessons Learned

Alan Zorkot is a Chartered Professional Engineer (CPEng RPEQ NER) and Principal Consultant at Amplitude, with over 18 years of international experience in power system design, commissioning, and operation.

Alan specialises in microgrids, hybrid energy systems, and large-scale Battery Energy Storage Systems (BESS), with deep expertise in power system studies, grid integration, and the technical challenges of high renewable penetration. His work encompasses transmission and distribution systems, power quality and harmonics, insulation coordination, protection design, and HV/MV asset commissioning. He has held senior roles across leading consultancies and major utilities, providing principal-level technical support for grid connections, and power system stability analysis. His recent work includes a 12-month assignment with a distribution network service provider evaluating complex new connections.

ALAN LOUIS, Energy Queensland

MIST Facility - real power real time – simulating and testing the future network



Alan is the Principal Engineer in the New Technology group within Energy Queensland and is the lead engineer of an advanced test laboratory in Cairns called the MIST Facility and the Innovation Lab. His experience relates to integrating energy resources into the distribution and isolated networks, focusing on the modelling and validation of power converter and energy storage technology alongside traditional network assets. He has expertise in conducting hardware in the loop testing using a real-time simulator and extensive experience in laboratory testing and field trials of technologies for the modern power system.

RICHARD ROCHELEAU, Hawaii Natural Energy Institute, USA

Reliability Challenges during the Transition to a Solar Dominant Grid

Richard Rocheleau has 40 years of experience in renewable energy including photovoltaics, hydrogen and fuel cell technologies, ocean energy systems, and grid integration. Richard has been the Director of the Hawaii Natural Energy Institute (HNEI), an Organized Research Unit at the University of Hawaii since 2000. Current focus areas include analysis to identify cost-effective pathways to Hawaii's 100% RPS goals; development and demonstration of advanced grid architectures to enable alternative energy use; and development of international partnerships in the Asia-Pacific region.

AHMED SABER, ETAP, USA

Simulation, Operation, and Business Model of BESS

Ahmed Y. Saber received his Ph.D. degree in Electrical and Computer Engineering from the University of the Ryukyus, Japan, in 2007. He currently serves as Vice President of Optimization and Artificial Intelligence at ETAP, USA, where he leads the development of advanced tools for forecasting, optimization, operation, and control of intelligent power systems. His work integrates deterministic, stochastic, and AI-based intelligent methods to enable next-generation digital power system solutions. Dr. Saber's research and innovation efforts have been supported by major national and international funding agencies, including the U.S. Department of Energy (DoE). He has authored more than 100 peer-reviewed technical publications and is the inventor of five patents in the field of intelligent and resilient power systems.

His research interests span a broad spectrum of topics, including artificial intelligence and machine learning applications in power systems, smart grids, energy storage systems, renewable energy integration, power system forecasting and optimization, cybersecurity, real-time digital systems, and operations research.

TANUJ KHANDELWAL, ETAP, USA

Simulation, Operation, and Business Model of BESS

TANUJ KHANDELWAL (Senior Member, IEEE) received the bachelor's degree in electronics and telecommunications engineering from the University of Bombay, in 1999, and the master's degree in electrical engineering from California State University Long Beach, in 2001. Before joining ETAP, he was an Associate Engineer with PricewaterhouseCoopers. He has been working as an Electrical Engineer with the Engineering Consulting Services Department, ETAP, since 2001. His projects involved application development for power derivatives in a deregulated market. He was also involved in the operating procedures audit of CAISO, in 2001, and worked on streamlining power contracts for Nevada Power. His duties involve algorithm design, testing, engineering and software support, training, and application engineering for ETAP family of products. He is a Group Member of the IEEE Std. 739 (Bronze Book) and IEEE Std. 551 (Brown Book) and a member of the IEEE Rail Transit Vehicle Interface Standards Committee.

MELANIE D. JOHNSON, U.S. Army Corps of Engineers, USA

Energy Resilience Microgrids in Operational Energy

Melanie D. Johnson is an electrical engineering researcher in the Energy Branch of the U.S. Army Engineer Research and Development Center's Construction Engineering Research Laboratory (ERDC-CERL). Melanie joined the Energy Branch at ERDC-CERL in 2008 and focuses on improving energy resiliency for DoD installations with microgrids and other advanced electrical distribution technology. She was the Assistant Technical Manager for the JCTD SPIDERS program, a key technical lead for the Tactical Microgrids Standards Consortium, and currently leads CERL's Resilient Energy and Advanced Distribution Innovation Team.

Melanie graduated from the University of Illinois Urbana-Champaign with an MS in Electrical Engineering and from the University of Texas at Austin with a BSEE, both specializing in power and energy systems.

THOMAS WEARNE, CSIRO

The role of BESS in modern power systems

Thomas Wearne graduated from Murdoch University in WA and worked for five years in the solar industry in QLD, WA and the NT. This experience included off grid projects, the largest of which embedded 100 kW of solar PV in the 360 kVA diesel microgrid at Tipperary Station NT using ComAp control gear. Thomas then worked for five years at Power and Water NT in Connections, System Control and Market Operations on DER control and integration projects which included the ARENA funded Alice Springs Future Grid project. In his current role at CSIRO, Thomas focuses on the challenges of integrating DER with utility operations and improving the interoperability of behind the meter DER using open protocols.

VAHAN GEVORGIAN, NREL, USA

Role of GFM resources for enhancing grid stability in a small island system in Caribbean

Vahan joined NREL in October 1994 and has served many roles over the years. He is a chief engineer at NREL's Power Systems Engineering Centre and NREL senior research fellow. His contributions to NREL research have been recognized through various industry awards. His research Interests include reliability aspects of integrating high shares of variable generation into the grid, modelling, developing controls and testing renewable generation and energy storage technologies. He is IEEE Fellow and holds Ph.D. degree from the State Engineering University of Armenia.

JULIO BRASLAVSKY, CSIRO

Real-time voltage imbalance compensation in LV feeders via 4-wire current injections

Julio is a Senior Principal Research Scientist with the Power Systems Team at CSIRO, where he provides scientific leadership and expert advice on the transition to affordable, reliable, and secure low-emission electricity systems. His current research interests include dynamic network capacity allocation methodologies for distributed energy resources, and applications of distribution-level power electronics technologies to maximise utilisation of local electricity distribution networks.

Julio currently leads the $5.6 million 2024–2027 CSIRO Electric Power Innovation for a Carbon-free Society (EPICS) Global Centre in partnership with the University of Melbourne and Monash University. The project is part of a National Science Foundation Global Centre collaboration involving 26 researchers from eight universities, a government agency, and a nonprofit organisation across the US, UK, and Australia.

Julio earned his PhD in Electrical Engineering from the University of Newcastle in 1996 and has held academic positions in Belgium, the US, Argentina, and Australia. He is a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) and a Senior Editor for the IEEE Transactions on Control Systems Technology. Julio has

MARIKO SHIRAZI, Alaska Center for Energy and Power, USA

Grid-forming inverters in Alaska Microgrids

Mariko Shirazi received the B.S. degree in mechanical engineering from the University of Alaska, Fairbanks (UAF), in 1996 and the M.S. and Ph.D. degrees in electrical engineering from the University of Colorado, Boulder, in 2007 and 2009 respectively. From 1996 to 2004, she was at the National Renewable Energy Laboratory's (NREL's) National Wind Technology Center; from 2009 to 2017, she was with the Power Systems Engineering Center, NREL. Mariko is currently research faculty at the Alaska Center for Energy and Power, UAF. She is interested in bridging power electronics and power systems research to understand the performance of converter-dominated power systems.

HAFSAH HALIDAH, National Research and Innovation Agency (BRIN), Indonesia

Decarbonising Isolated Grids in Indonesia: Challenges and Opportunities

Hafsah Halidah is a Senior Engineering Specialist at the Research Center for Electrical Technology, National Research and Innovation Agency (BRIN), Indonesia. Her work focuses on microgrid power systems and techno-economic studies. Her recent projects include a joint research effort with PT PLN on a DC Microgrid and Virtual Power Plant (VPP), and a prototype development for an IoT-AI-based monitoring and control system for microgrids at BRIN. She earned her bachelor's degree in electrical engineering from Institut Teknologi Bandung (ITB) and her master's degree in electrical power systems from Technische Universitaet Kaiserslautern, Germany.

AMANDA BYRD, Alaska Center for Energy and Power, USA

Building relationships through storytelling

Amanda Byrd is the Chief Storyteller at the Alaska Center for Energy and Power (ACEP), an applied research program at the University of Alaska Fairbanks. She works closely with community, research, and utility partners to craft audio, radio, and written stories that showcase the challenges and successes of generating power in remote microgrids across Alaska and beyond. In her role at ACEP, Amanda also helps strengthen and expand the center’s collaborations with utility and community partners in Australia.

She holds a B.S. in Natural Resource Management with Honours from the University of New England in Armidale, NSW, and an M.S. in Renewable Energy Science from the University of Alaska Fairbanks. Her research has focused on community-scale biomass energy systems and wood resources.

Amanda lives in Fairbanks, Alaska, with her husband, Tom. In her free time, she enjoys running, cross-country skiing, bicycling, backpacking, river trips, baking, and cooking.

TIM KALKE, Sustainable Energy Galena Alaska, USA

Bringing Energy Literacy to Community Members

Tim has been the General Manager of Sustainable Energy for Galena Alaska, Inc. (SEGA), since it was established in 2014. SEGA is a Galena based non-profit organization formed by the Louden Tribe, City of Galena and Galena City School District to promote and support local renewable energy and efficiency projects. Tim also serves as an adjunct research faculty member for the Alaska Center for Energy & Power (ACEP). He has an undergraduate degree in History; Secondary Education from the University of Northern Colorado, Master of Natural Resources degree with an emphasis in Sustainable Development from Oregon State University's E-Campus and is currently a PhD candidate at the University of Saskatchewan's Environment and Sustainability program. Tim's professional and research interests focus on collaborative energy planning and sustainable development with the goal of bringing a wider range of benefits to his community and other remote regions throughout Alaska.

DOMINIQUE PRIDE, Alaska Center for Energy and Power, USA

Microgrid tools that communities can use at no cost

Dominique Pride is a Research Associate Professor of Economics at the Alaska Center for Energy and Power at the University of Alaska Fairbanks. She received an M.S. in Resource and Applied Economics (2010) and a Ph.D. in Natural Resources and Sustainability (2017) from UAF. Dominique's research is focused on reducing residential energy use and costs in cold climate regions.

GWEN HOLDMANN, Alaska Center for Energy and Power, USA

Exploring Emerging Energy Options: Community Conversations on Nuclear in Alaska

Gwen Holdmann is Chief Scientist at the Alaska Center for Energy and Power (ACEP), an applied energy research program at the University of Alaska Fairbanks focused on community-scale fossil, renewable, and alternative energy technologies. She specializes in energy policy and planning, small-scale nuclear systems, and geothermal energy. Before joining UAF, Gwen worked as a design engineer and project manager, including leading the design and construction of Alaska's only operating geothermal power plant at Chena Hot Springs. She has been recognized for her contributions to innovation and public service, including induction into the Alaska Innovators Hall of Fame, selection as one of Alaska's Top Forty Under 40, recognition as an Arctic Fulbright Scholar, and receipt of the David P. Hutchens Public Service Award from the Alaska Power Association. Gwen holds a BS in Physics and both an MS and PhD in Energy Engineering and Policy. In her free time, she enjoys sailing and dog mushing, and has competed in both the Iditarod and Yukon Quest sled dog races.