2ND VIRTUAL POWER PLANTS, MICROGRID, LARGE SCALE **SOLAR AND ENERGY** STORAGE INNOVATIONS **FORUM**

Main Forum:

29 - 30 November 2021

Post-Forum Workshop:

1 December 2021

Venue: Virtual Forum (via Zoom) Australian Eastern Daylight Time (AEDT)

REGISTER BY 5 OCT 2021 TO ENJOY AU\$400 OFF

Powerful Reasons To Attend This Important And Timely Forum

Profit from new opportunities which VPPs, new energy storage and renewable energy innovations usher in

Receive the latest updates on government policies, incentives on VPPs. DER and decarbonization

Discover innovative products and solutions in the smart grid, metering, and renewable energy equipment sectors

Learn from renowned exemplars in the VPP, renewable and battery storage space on how they go about in moving ahead of the curve

Connect with an influential community of electric power professionals, smart grid suppliers, regulators, market makers, commercial and retail users at one strategic platform



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2ND VIRTUAL POWER PLANTS, MICROGRID LARGE SCALE SOLAR AND ENERGY STORAGE INNOVATIONS FORUM

BUILDING A STABLE POWER GRID AND SUSTAINABLE ENERGY WITH VIRTUAL POWER PLANTS

29 Nov - 1 Dec 2021 Virtual Forum (via Zoom) | Australian Eastern Daylight Time (AEDT)



GLOBAL THOUGHT LEADERS & KEY SPEAKERS INCLUDE:



GREGORY **ABRAMOWITZ** Head of Orchestration Platform and Operations **AGL Energy**



AGL'S VPP Innovation: How AGL'S **VPP Is Disrupting The Energy Market Scene**



ALAN REID Head Of Operations Reposit Power



How Reposit's VPP Solves Grid Challenges That Arise From Wholesale Market Volatility, Peaks In Demand And Poor Power Quality



LAURIE CURRO Head of Power Systems **Horizon Power**

HORIZON **POWER**

Horizon Power's Case Study: How Australia's First Remote Microgrid Uses Renewable Hydrogen Generation To Supply Over 50% Of Energy Needs



ED CHAN Director Australian Energy Market Commission (AEMC)



Why Should Technical Integration Be The First Priority In Integrating **Distributed Energy Resources (DER)**



LACHLAN BLACKHALL Head, Battery Storage, and **Grid Integration Program** ANU College of **Engineering and Computer Science**



Australian National University

Battery Storage And Grid Integration: VPP Capabilities And New Models Of Storage Deployment And Customer Representation



DR SCOTT DWYER Research Principal, Institute for Sustainable Futures (ISF) **University of Technology** Sydney

How MyTown Microgrid Takes An **Innovative Approach To Microgrid** Feasibility Using Cutting Edge IoT Technology



ANDREW BLAKERS Professor **Australian National** University



Australian National University

Australia's Rapid Solar & Wind **Electricity Prices And Emissions** Reductions



DARREN GLADMAN Director, Distributed Energy Clean Energy Council



Implications Of The New Framework That Allows DNSPs To Take **Customers Off Grid**



CHRIS TWOMEY Head of Operations Elliott Green Power

ELLIOTT GREEN POWER

Nevertire Solar Farm: Insights From A Large-Scale Solar Project To Provide Affordable, Reliable And Sustainable Electricity For Australians



ANDREW PINTAR Lead, Microgrid Commercialisation & Strategy **Monash University**



Australia's First And Largest Hybrid **Energy Storage System As Part Of** Microgrid That Can Cover 20 Buildings



JAMES EGGLESTON Senior Researcher **ARENA**

How Prosumer Can Lead To Network Effects Of Distributed Energy Resources



REGISTER BY 5 OCT 2021 AND AVOID PRICE INCREASE OF UP TO AU\$400

THE FORUM AT A GLANCE

DAY 1: MONDAY, 29 NOVEMBER 2021

MAIN FORUM

- Great The Energy Transition: Outlook, Opportunities, Challenges And Regulations In A Transitioning Energy Sector Beyond 2021
- Award Winning Virtual Power Plant: How Reposit Solves Grid Challenges That Arise From Wholesale Market Volatility, Peaks In Demand And Generation
- National Energy Laws Amendment: Implications Of The New Framework That Allows DNSPs To Take Customers Off Grid
- AGL's Virtual Power Plant How AGL'S VPP Can Dispatch Up To 12MWh Of Stored Energy And Managed By A Cloud-Based Control System
- Horizon Power Case Study: Australia's First Remote Microgrid Using Renewable Hydrogen Generation To Supply Over 50% Of Energy Needs

DAY 2: TUESDAY, 30 NOVEMBER 2021

MAIN FORUM

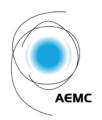
- Prosumer Led Network Effects Of Distributed **Energy Resources**
- Integrating Distributed Energy Resources (DER): Why Should Technical Integration Be The
- Battery Storage And Grid Integration: VPP Capabilities And New Models Of Storage Deployment And Customer Representation
- Insights FromA Large-Scale Solar Project To Provide Affordable, Reliable And Sustainable **Electricity For Australians**
- How Western Australia's First Thermal WTE Project Plans To Divert Up To 90% Of The Volume Of Waste Headed For The Landfills

DAY 3: WEDNESDAY, 1 DECEMBER 2021

POST - FORUM WORKSHOPS

- Workshop A: Smart Grid Solutions To Address The Rise Of Microgrids
- **Workshop B: Customer-Owned Microgrids**
- Workshop C: Solar PV Systems: The Compliant And Non-Compliant Installations

PARTICIPATING COMPANIES INCLUDE:





Australian National University



































Power Ledger

ELLIOTT GREEN POWER

MONASH **ENERGY** INSTITUTE

HEAR FROM KEY ENERGY EXPERTS

TOP-NOTCH SPEAKERS LINE UP INCLUDING:



DARREN GLADMAN Director, Smart Energy Clean Energy Council





DR ANAND BHATT
Research Scientist,
Advanced Energy Storage
Technologies
CSIRO Energy, CSIRO





ED CHAN
Director
Australian Energy
Market Commission





ARIEL LIEBMAN
Director
Monash Energy Institute
(MuEI)







ALAN REID
Head of Business Relation
Reposit Power





DR SCOTT DWYER
Research Principal
Institute for Sustainable
Futures (ISF)
University of Technology
Sydney





ADAM FALZON Managing Director Australian Wind And Solar





VANESSA RATARD Senior Project Manager Ekistica

Ekistica



ANDREW BLAKERS
Professor
Australian National
University



Australian National University



GREGORY ABRAMOWITZ
Head of Orchestration
Platform and Operations
AGL Energy





LAURIE CURRO
Head of Power Systems
Horizon Power





ANDREW PINTAR
Manager, Microgrid
Strategy &
Commercialisation
Monash University



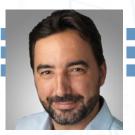
HEAR FROM KEY ENERGY EXPERTS

TOP-NOTCH SPEAKERS LINE UP INCLUDING:



KAPZ MALHOTRA General Manager, Customer and Innovation ATCO, Gas Division, **Australia**





EDUARDO ROBAINA EVP Operationss Add Energy

add energy



LACHLAN BLACKHALL Entrepreneurial Fellow and Head, Battery Storage and **Grid Integration Program ANU College of Engineering** and Computer Science



Australian National University



JULIA HALIOUA Sustainability Advisor **Frasers Property Australia**





CHRIS TWOMEY Head of Operations Elliott Green Power

ELLIOTT GREEN POWER



JAMES EGGLESTON Senior Researcher **ARENA**



DR DEEPIKA MATHUR Senior Research Fellow, Northern Institute **Charles Darwin** University





GABRIELLE KUIPER Guest Contributor Institute for Energy **Economics and Financial** Analysis (IEEFA)





VANYA KUMAR Executive Director, Commercial and Investment Attraction Department of Environment, Land, Water and Planning



Environment, Land, Water and Planning

PAST SPONSOR OF CLARIDEN GLOBAL'S VIRTUAL POWER PLANTS FORUM



2019

PAST PARTICIPATING COMPANIES

Clariden Global's Virtual Power Plants, New Energy Storage and Renewable Energy Innovations Global Summit 2019 in Australia has garnered energy professionals from various leading companies including:

ABB

AGL Energy

Air Future Group

Ausnet Services

Australian Energy Market Commission (AEMC)

Australian Energy Market Operatory (AEMO)

Australian National University

Balance Utility Solutions

Byron Shire Council

Central Coast Council

City West Water

Clean Energy Council

CleanCo Queensland

CS Energy

CSIRO

Cummins South Pacific

DNV GL

Energetics

Energus

Energy Australia

Energy Safe Australia

European Energy

Flow Power

Green Guys Solar

GWMWater

Hanwha Energy Retail Australia

Horizon Power

Lendlease

Monash University

New Energy

Osaka Gas Australia

Power Ledge

RAA

Reposit Power

RMIT University

Silverpond

Snowy Hydro

United Energy

Water Corporation

Woodside Energy

Yurika

HEAR WHAT ATTENDEES GOT TO SAY ABOUT CLARIDEN GLOBAL'S VIRTUAL POWER PLANT FORUM



All the speakers were capable and knowledgeable!

Service Solutions Manager, Cummins South Pacific



Amazing caliber of speakers

Principal Engineer, DNV GL

The venue was really nice and there was a good variety of attendees and speakers.

Energy Manager, Central Coast Council



There were many new ideas and good speakers. I appreciated hearing about the updates on what the industry is working on.

Principal Analyst,
Australian Energy Market Operator







FORUM HIGHLIGHTS



AGL'S VPP INNOVATION: HOW AGL'S VPP IS **DISRUPTING THE ENERGY MARKET SCENE**



HOW REPOSIT'S VPP SOLVES GRID CHALLENGES THAT ARISE FROM WHOLESALE MARKET VOLATILITY, **PEAKS IN DEMAND AND POOR POWER QUALITY**



BATTERY STORAGE AND GRID INTEGRATION: VPP CAPABILITIES AND NEW MODELS OF STORAGE **DEPLOYMENT AND CUSTOMER** REPRESENTATION



HOW PROSUMER CAN LEAD TO NETWORK EFFECTS OF DISTRIBUTED ENERGY RESOURCES



WHY SHOULD TECHNICAL INTEGRATION BE THE FIRST PRIORITY IN INTEGRATING DISTRIBUTED **ENERGY RESOURCES (DER)**



AUSTRALIA'S FIRST AND LARGEST HYBRID ENERGY STORAGE SYSTEM AS PART OF **MICROGRID THAT CAN COVER 20 BUILDINGS**



HOW MYTOWN MICROGRID TAKES AN INNOVATIVE APPROACH TO MICROGRID FEASIBILITY USING **CUTTING EDGE IOT TECHNOLOGY**



AUSTRALIA'S RAPID SOLAR & WIND DEPLOYMENT AND IMPLICATIONS FOR ELECTRICITY PRICES AND **EMISSIONS REDUCTIONS**



IMPLICATIONS OF THE NEW FRAMEWORK THAT ALLOWS **DNSPS TO TAKE CUSTOMERS OFF GRID**



NEVERTIRE SOLAR FARM: INSIGHTS FROM A LARGE-SCALE SOLAR PROJECT TO PROVIDE AFFORDABLE, RELIABLE AND SUSTAINABLE ELECTRICITY FOR **AUSTRALIANS**



HORIZON POWER'S CASE STUDY: **HOW AUSTRALIA'S FIRST REMOTE** MICROGRID USES RENEWABLE **HYDROGEN GENERATION TO SUPPLY OVER 50% OF ENERGY NEEDS**

DISCOVER

WHO YOU WILL MEET AT THE FORUM

Who You Will Meet:

SENIORITY LEVEL OF DELEGATES

40%

Vice President / Director / General Manager

20%

Board / C-Level / President / Managing Director

20%

Head of Department 20%

Manager



Industries (including but not limited to):

- **Utilities**
- Renewables & The Environment
- **Government Energy Departments**
- Electrical/Power Engineering
- Power Equipment
- Energy Storage/Batteries
- Telecoms (Utilities)
- Biomass/Hydro/Geothermal/Wave Energy
- Gas/Gas to Liquids/Hydrogen
- **Cloud/ICT Solution Providers**
- Clean Energy Providers
- City Councils
- Enterprises, data centers and farms participating in microgrids, VPPs and the Internet of Energy

In the Roles of (including but not limited to):

- **Asset Manager**
- CEO
- Chairman
- City Councilor, Utilities
- Co-Founder
- Commercial Manager
- СТО
- Director
- Director, Strategic Development
- Distribution Manager
- **Engineering Manager**
- General Manager, Asset Management
- General Manager, Generation
- Head, Analytics & Artificial Intelligence
- Head, Billing
- Head, Blockchain Trading
- Head, Business Development

- Head, Cybersecurity
- Head, Energy Storage Systems
- Head, Finance
- Head, Power Development
- Head, Projects
- Head, Renewables
- Head, Transmission Line Route
- **Inverter Systems Manager**
- Manager, Meter Strategy
- Manager, Network Operations
- Manager, Network Relationships and Assurance
- Manager, New Energy
- Manager, Power Market Analysis
- Manager, Regulatory Strategy
- Manager, Transmission & Distribution
- **Managing Director**
- Power Station Manager
- President
- Procurement Director
- Vendor Manager





HERE ARE

O REASONS WHY YOU SHOULD ATTEND THE FORUM

operational

jumping on the smart

electricity bandwagon

Learn from the

Participate at Australia's preeminent summit dedicated to commercializing new opportunities arising from the advent of VPPs, the impact of Al & blockchain on the power sector and the rise of prosumers

successful strategies and experience of power companies that have successfully Understand the started on VPPs, smart grids, energy storage and strategic and hydrogen energy considerations needed technologies to be made before

Obtain the latest updates on government policies and incentives on VPPs, DERs and decarbonization

> Discover an exciting showcase of innovative products and solutions in the smart grid and metering sectors that can help serve the new needs of power companies

Rethink and rebuild current market system to better regulate energy supply and demand

Learn best practices, form profitable partnerships, meet new customers and catch-up with peers in the smart electricity industry

> Prepare for peer-topeer electricity trading through blockchain, as renewable energy technology becomes more affordable

Find out new details and profit from current installed projects, technologies, and processes for large scale, commercial and microgrid applications of energy storage in ANZ and around the world

Connect with an influential community of electric power professionals, smart grid suppliers/service providers, government regulators, city councils, and special interest groups in renewables and smart energy to do business and build a more sustainable future for the power industry

MAIN FORUM AGENDA

10:00 Welcoming Speech, Opening Remarks & Thank You **Sponsor Speech By Forum Producer**

10:10 **Welcome Address By Forum Chairperson**



ARIEL LIEBMAN, PHD Monash Energy Institute



KEYNOTE

10:15 Kevnote

> The Great Energy Transition: Outlook, Opportunities, Challenges And Regulations In A Transitioning **Energy Sector Beyond 2021**

> The pandemic has the potential to change the priority of government policies and budgets, developers' investment decisions and the availability of financing through 2025. This casts a great deal of uncertainty on a market that had been expanding at a rapid pace in the previous five years. This session will share what are the resilience of renewables that will be tested beyond 2021 with regulatory changes and compliance challenges taking into consideration of the digital disruption from new utility business models.

VIRTUAL POWER PLANT IMPLEMENTATIONS. **INNOVATIONS AND FUTURE**

10:50 Clean Energy Future: How Can The Victorian Government Make Renewable Energy Zones A Success?

> Victoria is moving towards a future powered by renewable energy and we need to rethink the way we bring energy to communities. Victoria has legislated a new target of 50% renewable energy generation by 2030 and is rapidly adding renewable energy generation, which is cheaper to build than new coal plants. Victoria's coal-fired generators will begin closing from 2029. Victoria relies on an electricity network designed to move electricity from coal-fired power plants in the Latrobe Valley around the state. Many renewable energy sources like wind and solar farms are located in many parts of the state such as Western Victoria, Great South Coast, as well as in the Gippsland region. This means we need to build new electricity links to share this energy across Victoria as well as into other states. To expand renewable energy in Victoria, the government and private sector need to work together. Renewable energy can bring many benefits including reliability, affordability and reduced emissions.



VANYA KUMAR Executive Director, Commercial and Investment Attraction Department of Environment, Land, Water and Planning



11:25 Case Study

> Award Winning Virtual Power Plant: How Reposit Solves Grid Challenges That Arise From Wholesale Market Volatility, Peaks In Demand And Generation?

> ACanberra virtual power plant (VPP) has been recognized by Engineers Australia for its solar battery project. Act's Reposit Power received the accolade for its technology, which makes the electricity system cheaper, cleaner and more reliable. Reposit Power won the Sir William Hudson Award. This is the highest honor awarded for a project in the Australian Engineering Excellence Awards. Because it allows energy utilities to tap into consumer's solar batteries the VPP shores up the grid with secure renewable energy. This session will share an update of phase 2 of the project.



ALAN REID Head Of Operations Reposit Power



11:55 Case Study

> Pathway To Net Zero Emissions By 2040: Electricity Prices, Emissions And Australia's Rapid Solar/Wind Deployment

> Australia is installing solar and wind faster than almost any other country. More solar & wind is reducing BOTH prices and AND emissions, so the net cost of emissions reductions is less than zero. A 100% renewable electricity grid will be more robust and reliable than at present.



ANDREW BLAKERS Australian National University



12:30 Lunch Break

13:30 100% Renewable Microgrid

> Horizon Power's Case Study: Australia's First Remote Microgrid Using Renewable Hydrogen **Generation To Supply Over 50% Of Energy Needs**

> Traditionally, remote communities are powered by dieselgenerated microgrids. With this project, Horizon Power is testing if renewable hydrogen energy can be used to produce baseload power. The power supply for the hydrogen demonstration plant will come from a dedicated solar farm, with the plant expected to generate 526MWh per year, enough power for up to 100 homes.

> Horizon Power's Onslow system is set to be the home of Australia's largest and most advanced distributed energy microgrid, aiming to supply more than 50 per cent of energy needs with renewable power. The remote microgrid market is expected to increase to over A\$20 billion annually by 2024.



LAURIE CURRO Head of Power Systems Horizon Power



MAIN FORUM AGENDA

14:05 Case Study

> AGL's Virtual Power Plant - How AGL'S VPP Can Dispatch Up To 12MWh Of Stored Energy And Managed By A Cloud-Based Control System

> AGL's VPP project comprises the installation and orchestration of a 5MW VPP consisting of up to 1,000 residential energy storage systems installed behind the meter, and capable of dispatching up to 12MWh of stored energy. It recently successfully completed Stage 2 of the three-stage deployment of energy storage systems. 312 batteries had been installed in customer's homes and a new ESS technology energy storage system rolled out. Early trials showed that the VPP can respond as expected to both planned and unplanned dispatch events and has the potential to respond rapidly enough to participate in the 6 second contingency FCAS market. Stage 3 of the project will focus on completing the remainder of the 1,000 installations and further demonstration of VPP functionality for a number of network service and wholesale participation use cases.



GREGORY ABRAMOWITZ Head of Orchestration Platform and Operations AGL Energy



MICROGRIDS DEVELOPMENT & INNOVATIONS

14:40 MicroGrid In Australia

> National Energy Laws Amendment: Implications Of The New Framework That Allows DNSPs To Take **Customers Off Grid**

> A Stand-Alone Power System (SAPS) is an electricity supply arrangement that is not physically connected to the national grid. This includes microgrids, which supply electricity to multiple customers, and individual power systems, which supply electricity to a single customer.

> Technological developments, and the falling costs of renewable generation and batteries, are making SAPS an increasingly viable way of supplying customers. When parts of the distribution network need to be upgraded, it may now be more efficient to service a group of customers via a SAPS rather than proceed with the upgrade.

> SAPS are not generally captured under the national electricity frameworks and are currently subject to jurisdictional legislative frameworks that vary in their comprehensiveness. This can result in a preference for network upgrades over SAPS, even where the SAPS may be the most efficient option.



DARREN GLADMAN Director, Distributed Energy Clean Energy Council



15:15 Case Study

Evaluating The Results From Installing 1 MWh Behind-The-Meter Energy Storage System On A **University Campus With 20 Buildings**

- · Examining the system design of the first and largest hybrid energy storage system in Australia
- · Developing a platform to control a wide range of distributed energy resources, including 1 MWh energy storage across 20 buildings
- · Understanding and quantifying the value gained from installing behind the-meter storage and how it can be deployed to the rest of the state



ANDREW PINTAR Manager, Microgrid Strategy & Commercialisation Monash University



Case Study

ATCO's Hydrogen Microgrid Journey

Approximately 1000 solar panels have been installed at the Jandakot Operations Centre, capable of generating 300kW of power, which is approximately two and half times the daily power requirements of the facility.

The CEIH's design stores 500kWh of energy in batteries, with excess renewable energy utilised to power an electrolyser for the production of hydrogen which can be stored or injected into the micro-grid for testing, as a direct fuel or blended with natural gas. The use of excess renewable energy, which has traditionally been lost, sets this project apart from other hydrogen trials currently underway in Australia.



KAPZ MALHOTRA General Manager, Customer and Innovation ATCO, Gas Division, Australia



Closing Remarks By Forum Chairperson



ARIEL LIEBMAN, PHD Monash Energy Institute







MONASH University

MAIN FORUM AGENDA

10:00 Welcoming Speech, Opening Remarks & Thank You **Sponsor Speech By Forum Producer**

Integrating VPP Into Mainstream Electricity

10:10 **Welcome Address By Forum Chairperson**



10:15

ARIEL LIEBMAN. PHD Monash Energy Institute

AEMO Virtual Power Plant

Demonstrations: Transforming A

Scalable VPP Market Participation





AEMO

Panelists:

Moderator:



ED CHAN Australian Energy Market Commission (AEMC)







DR SCOTT DWYER Research Principal, Institute for Sustainable Futures (ISF)





DR ANAND BHATT Research Scientist and Team Leader CSIRO

University of Technology Sydney





VANESSA RATARD Senior Project Manager Ekistica

ARIEL LIEBMAN, PHD

Monash Energy Institute





ADAM FALZON Managing Director Australian Wind And Solar





EDUARDO ROBAINA EVP Operations Add Energy





GABRIELLE KUIPER Institute for Energy Economics and Financial Analysis (IEEFA)



12:15 Lunch Break

10:50 Distributed Energy Resources (DERS)

Prosumer Led Network Effects Of Distributed Energy

The Australian Energy Market Operator (AEMO) has published its first knowledge sharing report under its

landmark virtual power plant (VPP) demonstrations

program, which is intended to provide insights into the

scalability and network services potential of VPPs. The session will share insight on how the South Australia-

based Tesla-Energy Locals VPP responded to price

signals and frequency level and helps further understand

the benefits consumers can have from participating in

Energy crisis, economic and environmental concerns have led the way to prosumer-based electricity market where consumers and utilities can participate in market operations for economic benefits. Distributed energy resources and energy storage on prosumer facilities can provide significant financial savings for the consumer and grid support for the utilities. This session will cover what are the latest trend and benefits around this area.



JAMES EGGLESTON Senior Researcher ARENA

Panel Discussion

VPPs.

Integrating Distributed Energy Resources (DER): Why Should Technical Integration Be The First **Priority**

This discussion will cover what can be learnt from the integration of DER in Australia so far and how it might better inform Australia's investment program. Discuss will cover from technical, regulatory and market integration perspectives on why technical integration is the first priority or should it be first priority. Is Technical integration work vital to support consumer and investor confidence in DER in Australia? How can it encompass the quality of DER products and installations, integration into the distribution grid and providing certainty of return on investment?

INNOVATIONS IN GRID SCALE ENERGY STORAGE: GROWTH AND DEVELOPMENTS

13:15 Battery Storage And Grid Integration: VPP **Capabilities And New Models Of Storage Deployment And Customer Representation**

The Battery Storage and Grid Integration Program is taking a holistic, transdisciplinary approach to the development, integration, operation and optimisation of energy storage in electricity grids and electricity markets globally. Issues of energy equity and justice must be considered alongside issues of energy reliability and energy security as we transition our electricity sector away from coal-fired power generation towards a grid primarily powered by renewable generation and energy storage.



LACHLAN BLACKHALL Entrepreneurial Fellow and Head, Battery Storage and Grid Integration Program, Research School of Engineering ANU College of Engineering and Computer Science



30 NOV TUE

MAIN FORUM AGENDA

DAY 2

13:50 MyTown Microgrid Heyfield: Innovative Local Energy System Feasibility Study

MyTown Microgrid is an innovative, multi-year, multi-stakeholder project undertaking a detailed data-led feasibility study for the historic town of Heyfield.

\$1.8 million from the Federal Regional and Remote Communities Reliability Fund and \$100,000 from the Latrobe Valley Authority was granted to the project partners to undertake a study, testing what local energy solution is feasible and desirable for the town.

The Heyfield Community Resource Centre, Wattwatchers Digital Energy, and the University of Technology Sydney (UTS) are leading the project. More and more communities are taking control of their own energy supply in Australia. Spurred by new, affordable, clean technology options, these communities are part of a global movement changing the way electricity is generated, transmitted, stored, and used. Localized solutions empower communities to become resilient and adapt to crisis situations

Assessment and design will be built on a platform of deep community engagement and capacity building. The objective is a better energy future for the people of Heyfield, and a role model for other communities.



DR SCOTT DWYER
Research Principal, Institute for Sustainable Futures (ISF)
University of Technology Sydney



RENEWABLE ENERGY INNOVATIONS

14:25 Case Study: Net Zero Energy Demand Homes

Net Zero Energy Demand homes have the potential to reduce energy costs for homeowners and residents while also reducing emissions through deploying energy efficiency, demand management and renewable energy in new build houses. While this needs to be done rapidly it also needs to be done in a measured way that does not compromise the grid, nor put substantial additional pressures on housing affordability.



JULIA HALIOUA Sustainability Advisor Frasers Property Australia



14:55 Nevertire Solar Farm: Insights From A Large-Scale Solar Projects To Provide Affordable, Reliable And Sustainable Electricity For Australians

The Nevertire Solar Farm has an installed capacity of 132MW capable of generating circa 250 GWh of green electricity each year. The site will cover an area of 180 hectares and comprise approximately 400,000 solar panels, installed on ground-mounted single axis tracking frames. The 132MW Nevertire Solar Farm is located near Warren in north-west New South Wales. The farm has generated renewable electricity which will feed into the national electricity grid and use standard, flat solar photovoltaic (PV) modules installed on ground-mounted single axis tracking frames.

This session will cover some point on construction techniques, solar forecasting and capital costs, to Operations and Maintenance (O&M) practices and grid impacts.



CHRIS TWOMEY
Head of Operations
Elliott Green Power

ELLIOTT GREEN POWER

15:25 Case Study: Sustainable Future In End Of Life Management For Solar Panels

Installing solar panels is an easy way to lower your carbon footprint and cut electricity bills. But our recent research found there are many incentives to remove them prematurely, adding to Australia's massive waste problem.

Researchers predict Australia will accumulate one million tonnes of solar panel waste by 2047 - the same weight as 19 Sydney Harbour Bridges.

But this number is likely to be higher, as we found people often choose to remove panels after just 10 to 12 years of use. This is much earlier than their estimated end-of-life age of 30 years (and potentially older).

Unfortunately, recycling is just a small part of the solution. So why is this happening, and what can we do about it?



DR DEEPIKA MATHUR
Senior Research Fellow, Northern Institute
Charles Darwin University



BLOCKCHAIN, AI AND ANALYTICS

15:55 Block Chain P2P Solar Energy Trading

Case Study: How Power Ledgers' Blockchain-Enabled Virtual Power Plant Benefits

The Peer-To-Peer Electricity
Trading For Communities And
Grid Expansion



Power Ledger

Power Ledger has partnered with energy provider Powerclub to deploy its blockchain technology for solar energy trading on a commercial scale and give South Australian households greater control over their energy use. Under the major deal, Powerclub users will be able to pool their net solar and battery storage to act as a virtual power plant (VPP) and gain access to wholesale electricity prices.

16:25 Closing Remarks By Forum Chairperson



ARIEL LIEBMAN, PHD
Director
Monash Energy Institute







POST-FORUM WORKSHOPS

SMART GRID SOLUTIONS TO ADDRESS THE RISE OF MICROGRIDS

WORKSHOP A: 10:00 - 10:45

Recognizing that microgrids will exist with or without utility involvement, this session covers how utilities can leverage their smart grid investments to capitalize on the value proposition that occurs by working with the microgrid owner



WORKSHOP B: 11:00 - 11:45 CUSTOMER-OWNED MICROGRIDS



Why do consumers choose to build microgrids? In this session, we will focus on business case and desired outcomes, technical choices frequently available, and impacts to the utility.

SOLAR PV SYSTEMS: THE COMPLIANT AND NON-COMPLIANT INSTALLATIONS

WORKSHOP C: 13:00 - 13:45

This interactive workshop is designed to address common installation issues that lead to solar PV system non-compliance. Why is this important? The system has to be installed correctly to satisfy Australian and New Zealand standards and guidelines, in order to be eligible for STCs. If there are any noncompliant issues, the rebate cannot be claimed.



CAPITALIZE ON THIS FORUM

PARTNERSHIP OPPORTUNITIES

Looking for the ideal platform to elevate your professional status and strike key business partnerships?

Leverage on our limited sponsorship packages to strengthen and confirm your market position through consistent and continual branding awareness and take advantage of the plethora of opportunities with high level decision makers.

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- Extraordinary brand visibility, increasing brand awareness and preference
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Please contact Liezl Gutierrez (Ms) at +61 (4) 3228 7146 or email Liezl@claridenglobal.org to discuss potential sponsorship opportunities or to custom make your own package.

Microgrid, Large Scale Solar And Energy Storage Innovations Forum

- Enhance your corporate profile and visibility within your industry Your makers across the region
- Affiliation with an internationally recognized commercial event organizer

Clariden Global events are widely known and trusted throughout the world for providing supporting organizations, we are capable of delivering the highest caliber of expert knowledge and key industry insights to the target market.

If you meet the criteria mentioned above and would like to explore the opportunity to partner with us for the 2nd Virtual Power Plants, Microgrid, Large Scale Solar And Energy Storage Innovations Forum, please contact Karen Williams at +61 3 9909 7310 or email karen.williams@microgridevent.com.







2ND VIRTUAL POWER PLANTS, MICROGRID, LARGE SCALE SOLAR AND ENERGY STORAGE INNOVATIONS FORUM

Virtual Forum (via Zoom) | Australian Eastern Daylight Time (AEDT)

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Knowledge for the world business leaders

REGISTRATION PAGE

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Job Title:	Department:
Telephone:	
Email:	
Forum Package Selected:	
3rd Participant Name (Mr/Mrs/Ms):	
Job Title:	Department:
Telephone:	
Email:	
4th Participant Name (Mr/Mrs/Ms):	
, , , , , , , , , , , , , , , , , , , ,	Department:
Telephone:	•
Email:	
Forum Package Selected:	

FORUM FEES			
Forum Packages	Early Bird Fee (If payments and registrations are received by 5 Oct 2021)	Final Early Bird Fee (If payments and registrations are received by 15 Nov 2021)	Regular Fee
VIRTUAL FORUM			
A: 2-Day Main Forum (Most Popular)	AUD 1,595	AUD 1,795	AUD 1,995
B: 2-days Main Forum + 1-day Workshop (Most Value)	AUD 1,995	AUD 2,195	AUD 2,395

<u>PLEASE NOTE</u>:The forum fee includes forum documentation. Payments are required with registration and must be received prior to the forum to guarantee your place.

GROUP DISCOUNTS

Register with your Colleagues Today to Enjoy Group Discount*:

Group discount of 10% for the 2nd participant from the same organization.

For limited time only by 15 November 2021, register 3 participants and the 4th participant will receive a **complimentary** seat.

For 5 or more registrations, please contact *Karen Williams* at *karen.williams@microgridevent.com*.

Group Discount will only be applicable to the package of the lowest value.

*Only 1 discount scheme will apply. Discount will compound on top of your early bird discount! This offer is valid for a limited time only, till 15 November 2021.

4 WAYS TO REGISTER



Email: admissions@claridenglobal.com



Fax: +61 3 9909 7788 Call: +61 3 9909 7310



Website: www.microgridevent.com

PAYMENT METHODS

BY CHEQUE / BANK DRAFT:

Made payable to CLARIDEN GLOBAL INTERNATIONAL LIMITED

and mail to: 3 International Business Park, #04-29, Nordic European Centre, Singapore 609927.

BY TELEGRAPHIC TRANSFER TO:

Bank Name: Standard Chartered Bank

Bank Code: 7144
Bank Branch Code: 001

Bank Address: 6 Battery Road, #01-01 Singapore 049909

Bank Account No: 0107775042

Bank Account name: CLARIDEN GLOBAL INTERNATIONAL LIMITED

SWIFT Code: SCBLSG22

Please note that all bank charges are to be borne by participants. Please ensure Clariden Global International Limited receives the full invoiced amount.

Note: Please include invoice number on all payment types and your company's name in your payment instructions for our reference.

CREDIT CARD:

To make payment by credit card, please call our client services hotline at +61 3 9909 7310.

FORUM VENUE AND ACCOMMODATION INFORMATION

Virtual Forum (via Zoom) | Australian Eastern Daylight Time (AEDT) 29 November – 1 December 2021

HOW TO REGISTER AND PAY

An invoice and registration confirmation will be sent within 7 days, please contact us if you have not heard from us within 7 days. Payment can be made by credit card, by bank transfer or by cheque made payable to "CLARIDEN GLOBAL INTERNATIONAL LIMITED".

ALL PAYMENTS MUST BE RECEIVED IN ADVANCE OF THE EVENT.

ACCOMMODATION

Accommodation is not included in the program fee but you will be entitled to use our corporate rate for your accommodation. Information will be sent along with your registration confirmation.

CANCELLATIONS AND SUBSTITUTIONS

Once we have received your booking, the place(s) are confirmed. No refunds will be made for any cancellations, however, program credits of equivalent value only applicable for Clariden Global events will be provided. Credits can only be redeemed for 1 program and is valid for only one (1) year from date of issue.

Substitution with a qualified candidate is allowed by providing at least 5 working days of advance notice to Clariden Global. One time substitution is allowed with no charges. Subsequent substitutions will be charged 10% admin fee.

ALL CANCELLATIONS MUST BE RECEIVED IN WRITTEN FORM

<u>PLEASE NOTE</u>: CLARIDEN GLOBAL INTERNATIONAL LIMITED reserves the right to change the content and timing of the programme, the speakers and the date and venue due to reasons beyond their control. If in the unlikely event that the course is cancelled, CLARIDEN GLOBAL INTERNATIONAL LIMITED will refund the full amount and disclaim any further liability.

ENQUIRIES: If you have any queries about registration or payment please do not hesitate to contact our client services department on +61 3 9909 7310.

<u>PRIVATE DISCLOSURE STATEMENT</u>: Any information provided by you in relation to this event is being collected by CLARIDEN GLOBAL INTERNATIONAL LIMITED and will be held in the strictest confidence. It will be added to our database for the primary purpose of providing you with information about future events and services.

Visit us at www.claridenglobal.com for upcoming events

FOR OFFICIAL USE		
FEE RECEIVED	REFERENCE: L21015/ND/KW	