Call for Abstracts

Energy Networks Australia

Energy Networks 2018 Sydney, Australia 5-7 June 2018

Energy Networks Australia is inviting you to submit an abstract for consideration for speaking and poster presentations at *Energy Networks 2018*. The themes below indicate the areas of interest to the Program Development Committee for the Conference Sessions and Network Operations Forum.

Conference Sessions

Theme 1: Customers, Community & Connections

Theme 2: Resilience & Reliability

Theme 3: Integrated Networks: Renewables, Technology & Transformation

Theme 4: A Secure Power System

Theme 5: New Rules, New Markets, New Directions

Theme 6: Gas Futures, Innovation & Supply

Network Operations Themes

1. Workplace, Health and Safety Forum

2. Vegetation Management Forum

It is recognised that there is some commonality across themes and your proposed topic may be focussed on a theme that relates to others. The themes are not the final structure of the Conference sessions but are used to provide guidance to you on the areas of interest to the Program Development Committee. Final concurrent session topics and structure are informed by the nature and quality of abstracts received.

The Program Development Committee is seeking presentations that address new research and insights, case studies, pilots and project results, plus excellence in technology and service delivery. Those abstracts that are predominantly commercial demonstrations must be able to provide an innovative insight, outcome, technology or service. We encourage abstracts from specialists from across the supply chain and its disciplines and expertise to represent the diversity of interests in the sector.

Please clearly indicate in your abstract submission which area of interest your abstract is for. The inclusion of a video link or file of previous presentations in the abstract submission is encouraged but not essential.

Conference Sessions

THEME 1
Customers, Community & Connections

Customer choice in service & technology presents key opportunities for a smarter, cleaner network. This will occur in partnership with traditional participants, new market entrants, research institutions & governments. How will customer engagement, collaboration & competition mature for the benefit of the community, while protecting vulnerable customers?

- Customer strategies & technology
- Advanced customer engagement practice & strategy
- Major outage event response
- Social platforms & customer engagement
- Customer protection & supporting vulnerable customers
- Innovation in pricing & tariffs
- Greenfield developments & new grid design
- Microgrids in action
- Remote & standalone systems
- Embedded networks
- Enabling customer or aggregator interface technology & services
- New collaborative options & approaches
- Partnering for research & development
- Start-ups, new entrants & connecting with incumbents
- Energy supply chain collaboration
- Global connections, partnerships & priorities

THEME 2
Resilience & Reliability

How are energy networks leveraging technology, expertise & resources to enhance asset performance & management to deliver a resilient & reliable energy system?

- System operations, stability & control
- Asset monitoring
- DER visibility & hosting capacity
- Network sensing
- Power quality issues
- Phasor measurement units
- Automation, machine learning
- Remote inspection technologies, LIDAR & drones
- Augmented reality & VR in utility operations
- Grid resilience
- System planning with diverse & high penetration DER
- Optimisation of asset use
- Fault detection & mitigation
- Standards & guidelines
- Summer 2017/18 a retrospective, key insights for Summer 2018/19
- Transformed workforce
- Climate change adaptation & resilience
- Integrating customer choice into asset management

THEME 3
Integrated Networks: Renewables, Technology & Transformation

New technology, communications & generation sources are an opportunity for the network to evolve into a platform of new services for customers & a cleaner system. What are the opportunities & challenges for enhanced data, communications & integration of renewables & technology to support a resilient energy system that creates value for customers?

- Platforms for DER & orchestration
- Locational valuation of the grid
- From DNSP to distribution system operator
- Transactive energy systems
- Renewable energy integration
- Virtual power plants – services to markets & the grid
- Innovation in system operation & management
- Grid integration of electric vehicles
- Grid defence: cyber–security, data sharing & energy networks
- Opportunities for hydrogen and biogas
- Diversity in energy storage
- Grid scale storage
- Demand side participation
- Advanced network intelligence & data analytics
- Advanced metering deployment strategies & benefit realisation
- Edge-of-Grid computing for real time response
- Open data, sharing & privacy
- Standards as a platform for innovation in grid services & energy markets

THEMES 4, 5 & 6 ON NEXT PAGE

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Energy Networks 2018 – Network Operations Forums

These one-day forums are designed for senior staff in critical operational areas.

Workplace, Health and Safety Forum *6th June 2018*	**Vegetation Management Forum** *7th June 2018*
» Strategy » Leadership and culture » Future workforce training and needs » Safety practice » Safety performance » Workforce resilience in times of change » Work practices	» Planning and community engagement » Vegetation management case studies » Risk management » New technology (LIDAR, UAV's remote sensing and vegetation growth retardants) » Business models

Conference Sessions

THEME 4	THEME 5	THEME 6
A Secure Power System	**New Rules, New Markets, New Directions**	**Gas Futures, Innovation & Supply**
Balancing security, affordability & carbon abatement is foremost in the mind of institutions, networks & decision makers. How will transmission businesses integrate high penetration renewables with the grid, while maintaining power system security & meeting their responsibilities to customers?	The transformation of the energy system will require policy & regulation that fosters innovation & a stable environment. How should institutions, market players & governments open the system to deliver a safe, clean & reliable system?	What are the opportunities for innovation, growth, supply & to support energy security for Australian energy customers, while supporting a cleaner energy future?
» Energy security planning & co-ordination » Transmission & large-scale renewables » Transmission – from capacity to system security services » Interconnection in the NEM and beyond? » Flexible resources & 'supply following' in national wholesale markets » NEM security requirements & market frameworks » Progress on inertia markets » Generation connections & performance » Managing the DSO/TSO/AEMO interface » South Australia – lessons & progress » Storage without batteries - pumped hydro, concentrated solar thermal, 'Power to Gas' hydrogen storage » Approaches to benchmarking NEM TNSPs » International lessons, responses & case studies	» 'After Finkel' - Energy policy priorities » Energy market governance » Electricity market evolution » Carbon policy » Gas policy & markets » Regulation and rules that support innovation » Smart grid enabling regulation and policy » Energy market competition » Business models » Regulatory reform » International approaches to regulation and policy » Animating markets and incentives for distributed energy systems » TOTEX based regulatory approaches » How a system-wide grid plan might inform future investment decisions » Governance and policy approaches to cyber-security	» Complementarity of gas, electricity & renewables » Outlook for Australian and International gas markets » Advancements in technology & innovation » Smart gas in the energy mix » Opportunities for growth & supply » Decarbonising gas » Renewable gas and biogas production » Supporting energy security » Innovation in gas appliances » The value proposition for residential use of gas » Gas distribution network management » Management of unaccounted for gas

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