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The Australian Energy Storage Knowledge Bank

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seek LIGHT

Overview

- Centre for Energy Technologies
- Overview of the Project
- Capabilities for Industry
 - Knowledge Bank and Knowledge Sharing
 - Grid Battery
 - Test Infrastructure
- What this means for the energy storage industry
- Q&A at the end

Centre for Energy Technologies

- Interdisciplinary Research Centre
- Research Areas include:
 - Energy Transmission and Storage
 - Alternative Fuels
 - System integration, analysis and optimisation
 - Solar Thermal
 - PV
 - Energy Efficiency
 - Hybrid Combustion
 - Control Systems

Project Overview

- Established July 2015
- ARENA Funded
- 6 Collaborating Parties
 - South Australian Department of State Development
 - SA Power Networks
 - Electrical Networks Association
 - Solar Storage
 - ZEN Energy Systems
 - Power and Drive Renewable Solutions
- 3 Capabilities
- Overriding Goal: Accelerate Growth of Energy Storage Industry

Knowledge Bank

Central Repository for Energy Storage Knowledge

- Case Studies
- All trial / test data
 - Network Performance Outcomes
 - Storage System Level
 - Environmental Data
 - Battery Level Data
- Link with other databases / projects around Australia and the world

Grid Battery

- 200kw / 200kwh
- 2 20' Containers
- High resolution data capture
 - Detailed power quality monitoring, including transients, critical operating data
- External connections available
 - Monitoring PV systems, diesels, wind generators, other storage systems, local grid
- Trial range of applications

Grid Battery – Application Areas

- Network Support
 - Peak shaving, voltage support, etc.
- Behind the Meter
- Diesel dominant micro grids
 - Ramp rate control
 - Peak load assistance
 - Power factor correction
- Additional Network Support
 - Islanding tail section of MV feeders
- Embedded Micro grids

Test Infrastructure

- Testing of 3rd Party Systems in the Field
- Off grid testing of third party storage systems
 - Simulate a range of operational conditions
 - No regard for the effects on surrounding grid

Implications for Industry

- Demonstrate Storage Systems' ability to solve problems in a range applications
- Customers can run trials
- Technology suppliers can verify their systems independently
- Share lessons learnt

- Facilitate movement along learning curve

Implications for industry

- Standards around battery life
 - Usage patterns
 - Definition of End of life
- Standards around safety
- Standards for Network Connection
- Feed info into RTOs

To Conclude

- Get in touch
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- If you have any questions, I'll endeavour to answer them



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Thank you

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