

ENERGY STORAGE 2017 LATEST TECHNOLOGIES TO FURTHER THE DEVELOPMENT OF ENERGY STORAGE

Institution of
**MECHANICAL
ENGINEERS**

KEY SPEAKERS INCLUDE:

Michael Ashcroft, Innovation Strategy Manager SO
Strategy, System Operator
National Grid

Claire Addison, Government & Regulatory Affairs
Manager
AES UK & Ireland

Chris Stark, Director of Energy and Climate Change
Scottish Government

Stewart Reid, Head of DSO and innovation
Scottish and Southern Electricity Networks

Carla Peterman, CPUC Commissioner
The California Public Utilities Commission

27 September 2017
Radisson Blu Hotel, Edinburgh



SUPPORTING ORGANISATION:



EVENT PARTNER:

topEngineer

Book your place today and join the discussion
www.imeche.org/energystorage2017

WHY ATTEND ENERGY STORAGE 2017

27 SEPTEMBER 2017, EDINBURGH

WITH SCOTLAND A LEADER IN ENERGY STORAGE TECHNOLOGY AND THE SCOTTISH GOVERNMENT CURRENTLY IN CONSULTATION REGARDING THEIR DRAFT ENERGY STRATEGY, THE INSTITUTION OF MECHANICAL ENGINEERS' ENERGY STORAGE 2017 WILL BE HOSTED IN EDINBURGH.

This event will address the key energy storage projects in Scotland as well as case studies from leading initiatives from the UK and across the world. With disruptive technologies including battery storage developing ever greater capability, attend to hear the latest insights from leading experts in the field.

Take this opportunity to network with the operators, regulators, academic researchers and Tier 1 suppliers who are breaking new ground in storage technology and to join the discussion surrounding the future of energy storage.

KEY PROGRAMME HIGHLIGHTS:

- **National Grid** give their view of energy storage as system regulator
- **AES UK & Ireland** share their plans for the new largest battery installation in Europe
- The **Scottish Government** talk about their draft Energy strategy
- **Ramboll** share their lessons learned from the heat storage project at South Jutland
- **Scottish and Southern Electricity Networks** give their insights gained on energy storage from the Thames Valley Vision Project

WITH THANKS TO:

Ian Arbon, Renewable Power Committee
Institution of Mechanical Engineers

ATTEND THIS EVENT TO:

- Hear from the pioneering organisations in the field of energy storage including **National Grid, RES Group, AES UK & Ireland, Scottish and Southern Electricity Networks, Ramboll, Highview Power Storage and Northern Powergrid**
- Gain insight into the draft **Scottish Energy Strategy** and Scottish plans to support energy storage to see how you could get involved in the industry
- Learn about the **latest battery storage projects** from across the UK, Scotland and worldwide
- Discover the latest breakthroughs in **thermal storage systems** and applications of them in Europe
- Network with leading organisations in the sector including **operators, regulators, researchers and energy storage solution providers**

WHO SHOULD ATTEND?

All Heads, Directors, Managers and Engineers who are involved in the following areas are strongly recommended to attend:

- Energy Policy
- Energy Storage Technology
- Heat Transfer and Management
- Equipment Design and Manufacture
- Low Carbon Development
- Climate Systems Development

**BOOK YOUR PLACE TODAY
AND JOIN THE DISCUSSION**

WWW.IMECHE.ORG/ENERGYSTORAGE2017

TERMS AND
CONDITIONS APPLY

PROGRAMME

27 SEPTEMBER 2017	
08:30	REGISTRATION AND REFRESHMENTS
09:00	CHAIRMAN'S OPENING REMARKS Ian Arbon, Renewable Power Committee, Institution of Mechanical Engineers
09:20	ENERGY STORAGE: A VIEW FROM THE SYSTEM OPERATOR Michael Ashcroft, Innovation Strategy Manager, SO Strategy, System Operator, National Grid
09:45	IMPROVING FREQUENCY RESPONSE FOR THE NATIONAL GRID THROUGH BATTERY ENERGY STORAGE SYSTEMS Edward Kenney-Herbert, Energy Storage Project Manager, RES Group
10:10	BUILDING A CLEAN, UNBREAKABLE GRID WITH ENERGY STORAGE IN SCOTLAND Claire Addison, Government & Regulatory Affairs Manager, AES UK & Ireland
10:35	QUESTION AND ANSWERS
10:50	NETWORKING REFRESHMENT BREAK
	BATTERY STORAGE PROJECTS
11:20	THAMES VALLEY VISION PROJECT AND ITS OPPORTUNITIES Stewart Reid, Head of DSO and innovation, Scottish and Southern Electricity Networks
11:45	DISTRIBUTED STORAGE AND SOLAR STUDY (DS3) Paris Hadjiodyseos, Smart Grid Development Engineer, Northern Powergrid
12:10	GENERATION INTEGRATED ENERGY STORAGE Seamus Garvey, Professor of Dynamics, University of Nottingham
12:35	QUESTIONS AND ANSWERS
12:50	NETWORKING LUNCH
13:50 Keynote	DRAFT SCOTTISH ENERGY STRATEGY: THE FUTURE OF ENERGY IN SCOTLAND Chris Stark, Director of Energy and Climate Change, Scottish Government
	INSIGHTS INTO THERMAL STORAGE
14:20	ONE SEASONAL HEAT STORAGE: MULTIPLE PURPOSES Flemming Ulbjerg, Engineer, Ramboll
	BREAKTHROUGHS IN OTHER FORMS OF ENERGY STORAGE
14:45	LIQUID AIR ENERGY STORAGE (LAES): MEETING THE DEMANDS OF TOMORROW'S POWER NETWORK WITH TODAY'S TECHNOLOGY Stuart Nelmes, Engineering Director, Highview Power Storage
15:10	QUESTIONS AND ANSWERS
15:25	NETWORKING BREAK
15:55	CALIFORNIA'S ENERGY STORAGE PROGRESS AND FUTURE PLANS Joining via SKYPE with live Questions and Answer Session Carla Peterman, CPUC Commissioner, The California Public Utilities Commission
16:20	QUESTIONS AND ANSWERS
16:25 Panel Discussion	BREAKING THE BARRIERS TO THE FUTURE OF ENERGY STORAGE
16:55	CHAIR'S CLOSING REMARKS
17:00	CLOSE OF CONFERENCE

For the most up-to-date and detailed programme for the event, please visit www.imeche.org/energystorage2017

- This programme is subject to change.
- The Institution is not responsible for the views or opinions expressed by individual speakers.

HOW TO BOOK YOUR PLACE

FEES AND CHARGES

Registration fees include entry to the sessions, refreshments and a copy of the conference proceedings.

Fees and charges	Standard Rate
Member, IMechE/supporting organisation	£360 + VAT
Non-member	£495 + VAT
Student/Retired	£99 + VAT

Group booking discounts are available. Contact us for more information.

THREE WAYS TO BOOK

- 1 Online:
www.imeche.org/energystorage2017
- 2 Email:
eventenquiries@imeche.org
- 3 Phone:
+44 (0)20 7973 1251

Please read the information listed below as each booking is subject to the Institution's standard terms and conditions.

CONDITIONS OF BOOKING

Completed application forms should be returned to the address above, along with the correct payment. Attendance at the event will be confirmed on receipt of the full balance. All participants are advised to bring a copy of their confirmation with them on the day, to ensure the fastest possible entry.

SPECIAL REQUIREMENTS

Please inform us of any special requirements, ie dietary or access, on the relevant section of the booking form or email eventenquiries@imeche.org

CANCELLATION

For a refund (minus £25+VAT admin charge), cancellations must be received at least 30 days prior to the event. Replacement delegates are welcome at any time. The Institution reserves the right to cancel any event. In this case, the full fee will be refunded unless a mutually convenient transfer can be arranged. In the event that the Institution postpones an event for any reason and the delegate is unable or unwilling to attend

on the rescheduled date, they will receive a full refund of the fee paid. The Institution is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. The Institution shall assume no liability whatsoever if this event is cancelled, rescheduled or postponed due to a fortuitous event, Act of God, unforeseen occurrence or any other event that renders performance of this conference impracticable, illegal or impossible. For the purposes of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency.

Please note that while speakers and topics were confirmed at the time of publishing, circumstances beyond the control of the organisers may necessitate substitutions, alterations or cancellations of the speakers and/or topics. The Institution reserves the right to alter or modify the advertised speakers and/or topics if necessary without any liability to you whatsoever. Any substitutions or alterations will be updated on the event's webpage as soon as possible.

LIABILITY

The organisers do not accept liability for any injuries or losses of any nature incurred by delegates and/or accompanying persons, nor for loss or damage to their luggage and/or personal belongings.

CONFERENCE VENUE

Radisson Blu Hotel
80 High St
The Royal Mile
Edinburgh
EH1 1TH

SPONSORSHIP & EXHIBITION OPPORTUNITIES

GET INVOLVED

Attending this event as either an exhibitor or sponsor will give you the opportunity to display your solutions, services and products to the right people at the right time.

BENEFITS OF SPONSORING

- **Showcase** new products
- **Raise** awareness of your operation
- **Improve** perception of your brand
- **Influence** other organisations' spending plans

This is an excellent way to enhance your company profile and communicate effectively to your target audience.

For more information please call
+44(0)20 7973 1309
or email sponsorship@imeche.org

PE
DOWNLOAD
THE PE APP

Access
the latest
engineering
news

www.imeche.org/peapp



**Institution of
MECHANICAL
ENGINEERS**

The Institution of Mechanical Engineers is a registered charity (no 206882) VAT No GB299930493.

1 Birdcage Walk
Westminster
London
SW1H 9JJ

T +44 (0)20 7222 7899
www.imeche.org

FORWARD THINKING

We are the market leader among professional engineering bodies. We've been supporting engineers since 1847 and have 115,000 members in over 140 countries, working in the world's most dynamic and important industries. Our comprehensive events programme brings you the latest research and best practice from industry and academia.

OTHER EVENTS TO LOOK FOR



SIMULATION AND MODELLING 2017

12-13 September 2017, Birmingham

A unique two-day event with thought-provoking industry discussions on utilising simulation and modelling to drive down costs, reduce inefficiencies and eradicate costly prototypes across multiple engineering industries.

www.imeche.org/simulation2017



THE INSTITUTION OF MECHANICAL ENGINEERS' ANNUAL DINNER

23 November 2017, London

The Institution of Mechanical Engineers Annual Dinner returns on 23rd November at the Science Museum, London, to celebrate the engineering profession.

www.imeche.org/annualdinner

The Institution of Mechanical Engineers organises over 120 events a year, including lectures as well as conferences, seminars, annual luncheons and dinners. Please visit www.imeche.org/events for the complete list of events.

Follow us on Twitter

 twitter.com/imecheevents