

Monday 12 October

Time	Location	Session
10:00 – 12:00	Edgbaston Park Hotel	ECRs Forum
12:00 – 13:00	Edgbaston Park Hotel	Lunch
13:00 – 16:00	Edgbaston Park Hotel	EDI forum Supergen Consortium
Session 1: Opening plenary (public)		
16:00 – 18:00		
16:00 – 16:20	Bramall/ Elgar Concert Hall Virtual – Events Air	Welcome: Stephen Jarvis Introduction: Martin Frier
16:20 – 17:10	Bramall/ Elgar Concert Hall Virtual – Events Air	Plenary 1.1 Recent advances in hydrogen storage - science & technology Speaker: Nigel Brandon (Imperial)
17:10 – 18:00	Bramall/ Elgar Concert Hall Virtual – Events Air	Plenary 1.2 Recent advances in Carnot batteries – science & technology Speaker: Andre Thess (DLR)
18.30 – 20.30		Reception Buffet dinner

Tuesday 13 October

All sessions on Tuesday 13 October will be taking place virtually on our Events Air platform.

Time	Session
10:30 – 11:00	Virtual Platform opens
10:50 – 11:00	Welcome Yulong Ding
Session 2: Recent Advances in Energy Storage	
11:00 – 13:00	
This session comprises of 4 individual concurrent sessions to choose from and will follow the below structure:	
11:00 – 11:40: Keynote address (30mins+10mins Q&A)	
11:40 – 13:00: 5 short talks (10mins presentation + 5mins Q&A = 15mins each)	
<p>Session 2.1: Recent advances in electrochemical energy storage science & technology, focusing on lithium-ion, sodium-ion and sodium-sulphur batteries Chair: Paul Shearing / Clare Grey Keynote speaker: Claire Villeville (France)</p> <p>Session 2.2: Recent advances in electrochemical energy storage science & technology, focusing on flow batteries Chair: Xiaohong Li & Xianfeng Li Keynote speaker: Qing Wang (Singapore)</p> <p>Session 2.3: Recent advances in thermo-mechanical energy storage science & technology, focusing on thermal (heat & cold) energy storage, liquid air, pumped heat electrical storage, gravity based, novel pumped hydro</p>	

Chair: Annelies Vandersickel + Christos Markides

Keynote speakers:

Alessandro Romagnoli from NTU

Novotny Vaclav – Czech Technical University in Prague

Desideri Umberto - University of Pisa

Vincent Lemort – University of Liege

Session 2.4: Recent advances in Thermo-mechanical energy storage science & technology,
focusing on compressed air

Chair: Seamus Garvey / Haisheng Chen (Institute of Engineering Thermophysics)

Keynote speaker: TBC

13:00 – 13:30 | Lunch

Session 3: Application Through Integration

13:30 – 15:00

This session comprises of 5 individual concurrent sessions to choose from and will follow the below structure:

13:30 – 14:10: Keynote address (30mins+10mins Q&A)

14:10 – 15:00: 5 short talks (10mins presentation + 5mins Q&A = 15mins each)

Session 3.1: Renewable generation with storage, including wind, solar, wave, tidal, bioenergy, geothermal

Chair: Deborah Greaves & Josh McTigue (US)

Keynote speaker: Paul Denholm (NREL)

Session 3.2: Based load generation and network with storage,

including nuclear, centralised energy grids, localised networks (e.g. districted heating/cooling), large integrated plants of foundation industry (steel, cement, glass, chemical etc)

Chair: Sarah Walker & Xiaoze Du

Keynote speaker:

Session 3.3: Applications of AI to energy storage, including materials discovery, management, control and emulation of storage, reliability, predictive maintenance, digital twinning, as well as AI driven life cycle analysis (ties well with the other session)

Chair: Haris Patsios & Alfonso Capozzoli

Keynote speaker: Parisa Akaber (Siemens, UK)

Session 3.4: Cold storage and sustainable cooling, including (TBC)

Chair: Yongliang Li & Wenji Song (Chinese Academy of Sciences)

Keynote Speaker: Kai Wang (China)

Session 3.5 TBC: Energy storage for transport infrastructure, including (TBC)

Chair: Andrew Cruden

Keynote speaker: TBC

15:00 | Meeting end.

Wednesday 14 October

All sessions on Wednesday 14 October will be taking place virtually on our Events Air platform.

Time	Session
10:30 – 11:00	Virtual Platform opens
Session 4: Whole system approach & Policy	
11:00 – 13:00	
This session comprises of 4 individual concurrent sessions to choose from and will follow the below structure:	
11:00 – 11:40: Keynote address (30mins+10mins Q&A)	
11:40 – 13:00: 5 short talks (10mins presentation + 5mins Q&A = 15mins each)	
Session 4.1: Role, value and policy of energy storage Chair: Jonathan Radcliffe Keynote speaker: Prof Steve Griffiths, UAE	
Session 4.2: Life Cycle Analysis and Sustainability of Energy Storage Chair: Jacquetta Lee / Jonathan Radcliffe Keynote speaker: TBC	
Session 4.3: Techno-economics and feasibility Chair: Chunping Xie (Grantham Research Institute on Climate Change and the Environment) / Wei Wu (Xiamen University, China) Keynote speaker: Yingru Zhao (China)	
Session 4.4: Medium & long duration energy storage Chair: Jihong Wang & Asegun Henry Keynote speaker: Jeremy Twitchell (US)	
13:00 – 13:30	Lunch
13:30 – 14:15	Session 5: Closing Plenary Royal Society large scale energy storage study Keynote Speaker: Chris Llewelyn Smith
14:15 – 15:00	Closing remarks
15:00	Meeting end.