Energy Storage in a Changing Climate

SHFCA Members Meeting Tuesday 22nd March 2016

In conjunction with the Energy Technology Partnership, and supported by Scottish Renewables

University of St Andrews School of Chemistry, Purdie Building, St Andrews, KY16 9ST

Alongside the ambitious CO_2 reduction target, the Scottish Government has identified energy storage as an important technology for supporting renewables and deliver these targets in their Renewables Action Plan. In this programme we present an overview of the strides being made both by academia and industry to support this ambition ranging from transport applications to heat storage. The sessions feature leading speakers and will stimulate discussion and debate on this key topic.

09:50 – 10.20 ***Registration, Coffee & Networking***

10:20 – 13:00 Morning Session **Chair: John Irvine, University of St Andrews**

- 10:20 Welcome & Opening Comments
- 10:30 *Innovate UK support for energy storage projects*, Michael Priestnall, Innovate UK
- 11:10 *Probing structure and dynamics of (nano)materials for battery applications*, Serena Corr, University of Glasgow

11:30 – 11:50 ***Coffee & networking***

- 11:50 *Energy Storage from micro to medium renewable generation, Keith Hounsell*, Green Acorn Energy
- 12:10 *Adventures with Zn-Ce and Zn-Br_2 redox flow battery systems*, Leonard Berlouis, University of Strathclyde
- 12.30 *Developing New Materials for High Energy Li-S Batteries*, David Ainsworth, OXIS Energy
- 12.50 Panel Q&A Discussion

13:00 – 14:00 ***Lunch & networking***

14:00 – 15.00 Afternoon Session 1 **Chair: Stephen-Mark Williams, Energy Technology Partnership**

- 14:00 *How best to store renewables, a matter of time and technologies*, John Irvine, University of St Andrews
- 14:30 *Energy Storage via Power to Gas*, Kris Hyde, ITM –Power
- 14:50 *Closing the ammonia-water energy cycle*, Bill David, Rutherford Appleton Laboratory

15:10 – 15:30 ***Coffee & networking***

15:30 – 17:00 Afternoon Session 2 **Chair: Nigel Holmes, SHFCA**

- 15:30 *Energy storage materials and battery development for automotive applications*, Allan Patterson, Johnson Matthey
- 15.50 *Energy Storage in Constrained Managed Zones*, David MacLeman, SSEPD
- 16:10 *Enhanced Phase-Change Materials for Heat-Storage Applications*, Colin Pulham, University of Edinburgh
- 16:30 Panel Q&A Discussion

16:50 **Closing Comments: Nigel Holmes, SHFCA**