

IMAGES - Integrated, Market-fit and Affordable Grid-Scale Energy Storage

5th External Advisory Group (EAG) Board Meeting

Minutes

Date and time: 16:15, 21st November 2016
Venue: Room 'Space 10' (1st floor), Scarman House, Scarman Road, University of Warwick
Objectives of the meeting: to maximise the value of the IMAGES Project.
Chair: Bryony Livesey, Rotating Chair of the EAG

1. Attendance

External Advisers

Bryony Livesey – Costain
Chuan Zhang – Gaelectric
Nan Jia – Bilin Power

IMAGES PMT members

Jihong Wang, Michael Waterson, Robert MacKay, Jacek Wojcik – UoW
Murray Thomson, Philip Eames, Monica Giulietti – UoL
Seamus Garvey – UoN
David Evans, Jonathan Busby – BGS

Government/Sponsors

Andrew MacDonell – EPSRC

Apologies

Industrial:

Richard Drew – E.ON
Matt Cunningham – GE Energy
Stephen Aherne – Gaelectric
Andrew Stacey – Gateway
Lewis Dale – National Grid
Conor Wilson – Gaelectric
Fritz Crotonino, Sabine Donadei, Gregor Schneider – KBB Underground

Academic:

Phil Mawby, Bob Critoph – UoW

2. Welcome from Chair, and Chair's Introduction

Bryony Livesey welcomed everyone. Jihong Wang introduced Dr Nan Jia from Bilin Power, who joined the meeting as an observer.

3. Annual Project Progress Review

- Project progress has been reported during the meeting. Everyone agreed that the project progress is on track. Project has been also extended for further 6 months and the new end date is 29th Feb 2018.
- Seamus Garvey stated that the outcome from the project is enormous for its size. Project has also changed direction in some areas at Nottingham.
- Mike Waterson reported that the engagement with other Grand Challenge energy storage projects hasn't work well so far. Project members have attended other Supergen project meetings, reported IMAGES project at various meetings and are trying to keep in touch with other projects. The results from other projects have been used as a reference point for IMAGES research.
- Chuan Zhang commented that the simulation software toolbox for CAES is the very useful project outcome from industry (Gaelectric) point of view.
Action: PMT to explore any potential synergy between projects.

4. EAG Review and Advice to the Project Management Team

- Andrew MacDonell admitted that this is just a first IMAGES EAG project meeting he attends but in general he is impressed with good outcome and collaboration within the team. Project members are in contact with all major projects in the same scope/area.
- Chuan Zhang mentioned that IMAGES is too much focused on CAES, what might be not so essential in UK now. CAES can be potential excellent subject in collaboration with China and other developing countries.

5. Discuss the improvement of collaboration with industrial sectors

- Gaelectric project is identified as the best project promoting CAES technology (when completed). It has been also good talk with National Grid during a day. The Future CAES in the UK Workshop has been a great opportunity to engage with industry and government. Other events are planned in High Temperature Thermal Storage technology.
- The issue is how to present CAES to government to encourage them that this is attractive area for investment.
- Jihong Wang proposed more frequent meetings with Industrial Advisors.
- Andrew MacDonell suggested UKERC as a good platform for engagement between industry and academia.
- Bryony Livesey suggested good preparation for the last project meeting to work out the message to government and industry about the future of CAES.
- Chuan Zhang suggested that successful Gaelectric project could be potential great example for real CAES working facility. Also there are potential resources for CAES in continental

Europe where salt caverns are located (Holland) and build for different purposes than CAES and now are useless.

Action: EAG members will be invited more frequently for next regular meetings every 4 months to get more feedback before the end of the project.

6. AOB

- Andrew MacDonell mentioned about conference in Aberdeen paid by EPSRC – he is going to pass the details.
- Bryony Livesey suggested to circulate literature focused on ES technologies
- Jihong Wang suggested to invite Bryony Livesey as the EAG Chair for the remaining period of the project. The suggestion is welcomed by the members and Bryony Livesey accepted the invitation. The meeting confirmed this appointment of the EAG Chair.