

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

External Advisory Group (EAG) Board Meeting

Minutes

Date and time: 15:00, 22nd September 2015
Venue: Radcliffe House, room no 9, University of Warwick, Coventry, UK
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
Richard Drew – E.ON

IMAGES PMT members

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

Government/Sponsors

Justin O'Byrne – EPSRC

Apologies

Industrial:

Robert Collins - Rolls-Royce
Matt Cunningham - GE Energy
Lewis Dale - National Grid
Conor Wilson – Gaelectric
Stephen Aherne - Gaelectric
Fritz Crotonino, Sabine Donadei – KBB Underground
Andrew Stacey – Gateway

Academic:

Jihong Wang, Phil Mawby, Bob Critoph, Monica Giulietti – UoW

Government/Sponsors

Sally Fenton – DECC
Gareth Evans – Ofgem
Phil Proctor – ETI

2. Welcome from Chair, and Chair's Introduction

Bryony Livesey welcomed everyone and proposed to run through the latest feedback from EAG board and what has been done to address this feedback.

3. Previous meeting minutes and report

- EAG wrote a note after the last IMAGES Annual Meeting (6 pages of advice document) and received a short feedback from PMT board. EAG board commented the project Bryony Livesey was not sure how the suggestions from EAG were acted.
- The key point was that the project structure and goals were not clear but the project update was included in the respond note. Bryony Livesey noticed that this time EAG group hasn't had too much information about the project progress in advance before the meeting.
- Bryony Livesey raised a question if goals, project program and how the group members work together are clearer now or more should be done in that area. Seamus Garvey commented that there is a big difference between the today's meeting and the one from last year (Sept 2014) due to the scheduled a major project review to understand the problems that were faced, recognize opportunities, and present them to EAG to review. This year we are in different place and in different position. Philip Eames mentioned that a summary document as a progress report with a list of publications/outcome could be submitted to EAG members beforehand.
- Bryony Livesey asked about an interaction between group members. Murray Thomson commented that the integration between work packages is better now; there is also good communication and new collaboration between different parties. Michael Waterson gave as an example economics research done by Loughborough and Warwick teams. Philip Eames mentioned about joined collaboration between Loughborough and Warwick teams on high temperature thermal storage research. Seamus Garvey mentioned that apart of already reported collaboration during review part of the meeting (a day before) four other areas where we expect to develop joint papers were also identified.
- Bryony Livesey noticed that there should be a link between IMAGES and the new project led by Imperial College. Advisory group gave a suggestion that it should be some collaboration between these two projects as there could be some parts of work in common to make sure there is no overlap. Based on a short note from Imperial Collage it seems to be that there is no overlap between those two projects. Philip Eames has had a few discussions with Yulong Ding about potential collaboration as they have different approaches to the phase change materials. They applied for a joint proposal for EPSRC schools. They try to create a Thermal Energy Storage community to bring people together. Justin O'Byrne asked to be included in correspondence about collaboration between projects.
Action: PMT to explore any potential synergy between projects.
- Bryony Livesey asked about progress with GIS access for other project members. David Evans reported that BGS developed the first web tool based on BGS standards. BGS may face potential problems with IPR and it will have to be addressed. The issue is how much

data could be potentially downloaded from outside (non-project members). BGS is happy to supply any requested / necessary information to the project members.

Action: based on suggestions from previous meeting and current feedback Bryony offered to do search to find specific areas where IMAGES Project could be improved.

4. Project Annual Project Progress Review

- Bryony Livesey asked about general EAG board members feedback from the meeting. Richard Drew and Bryony Livesey noticed that it was very brief overview so it's difficult to give too much feedback based on one hour presentation from IMAGES members. Justin O'Byrne mentioned that he would like to see more about interactions and linkages between other projects. It is also necessary to prepare more detailed presentations in the future. Mike Waterson proposed for the next (4th) Annual Meeting to focus on presentation from IMAGES project and in the final year two days meeting – first day focused on IMAGES progress, and second day focused on interactions and linkages with other projects.

Action: PMT members – more detailed presentations for the next IMAGES Annual Project Progress Meeting is required

5. EAG Advice to the Project Management Team

- Bryony Livesey asked PMT members about their expectations from industrial partners over the committee. A closer collaboration with National Grid is required. As an example Mike Waterson mentioned about two areas where he needs to find experts: first one is forecasting in extend period of time (beyond official information on the website) and the second one in operation rules on the capacity market. David Evans asked about cavern sonar data accessibility from EON.
- Bryony Livesey asked of any reason why only few industrial partners are present on the meeting. David Evans: Robert and Richard from INEOS were not available. There is no new contact person in Crown Estate. Additionally six people sent apology: Sally Felton (DECC), Phil Proctor (ETI), Stephen Aherne (Gaelectric), Andrew Stacey (Gateway), Robin G Craig (INEOS Enterprises), Gareth Evans (Ofgem), Fritz Crotogino and Sabine Donaldei (KBB Underground Technology). Some people confirmed attendance but didn't show: Conor Wilson (Gaelectric), Matt Cunningham (GE Energy) and Robert Collins (Rolls-Royce).

Action: PMT to produce a shortlist of requirements from EAG.

6. AOB

Seamus Garvey's intention is to change the direction of the projects original plan and focus more towards generation integrated energy storage (GIES) as a kind of theme, which could be one of the major outcomes of the IMAGES project. That should be the key topic for the next PMT meeting in January 2016. Bryony Livesey suggested that discussion with one of the member of Carbon Capture and Storage Association Technic Group would be beneficial for IMAGES group.