

# Energy Storage in Electricity Grids

An open workshop—23 March 2016

9:00am **Registration and coffee**

9:30am **Welcomes:** Peter McHugh, MRIA, Policy and International Relations Secretary, Royal Irish Academy;  
William Gillett, EASAC; and Mark O'Malley, University College Dublin Energy Institute

9:45am **Overview presentation of EASAC project and contents of final report**

Mark O'Malley, MRIA, Chair of the working group on 'Valuing dedicated storage on electrical power systems'

10:00am **Questions from the audience**

10:10am **SESSION I:** Grid-scale energy storage systems—emerging technologies

Chair: Jonathan O'Sullivan, EirGrid

Thomas Schmidt, ETH Zurich

Angelika Heinzl, Universität Duisburg-Essen

10:55am **Questions from the audience**

11:10am **Break**

11:25am **SESSION II:** Energy storage within the wider system—costs and renewable integration

Chair: Mark O'Malley, University College Dublin

Gerard Finneran, Glen Dimplex

William D'haeseleer, KU Leuven

Hannele Holttinen, VTT

12:30pm **Questions from the audience**

12:45pm **Lunch**

1:45pm **SESSION III:** Case studies—ongoing storage projects in Ireland

Chair: John McCann, SEAI

Mark Byrne, Gaelectric

Orla Nic Suibhne, Údarás Na Gaeltachta / John Ward, REDT

Peter Duffy, Schwungrad

2:50pm **Questions from the audience**

3:05pm **Tea / Coffee break**

3:35pm **SESSION IV:** Battery energy storage

combined with solar PV

Chair: William Gillett, EASAC

Julia Badeda, RWTH Aachen

Marc Bettzuege, University of Cologne

Gerard Vowles, Gaelectric

4:40pm **Questions from the audience**

5:00pm **Closing session/Final remarks**



Acadamh Ríoga na hÉireann  
Royal Irish Academy





## PETER MCHUGH, MRIA

Policy and International Relations Secretary

As the Policy and International Relations Secretary of the Royal Irish Academy, I am delighted to welcome you to Academy House for this important workshop on 'Energy Storage in Electricity Grids'. The Academy takes great pride in its active involvement with EASAC and I am delighted that on this occasion the RIA is the lead academy for the working group on 'Valuing dedicated storage on electrical power systems' through our nominee Mark O'Malley, MRIA. It is hoped that the deliberations of today's workshop will feed into the working group's report, which is due to be published in the latter half of this year.



## MARK O'MALLEY, MRIA

Director of the Energy Institute and Electricity Research Centre, UCD

Welcome to the 'Energy Storage in Electricity Grids' open workshop. Energy storage has the potential to play an important role in future power systems with high penetrations of variable renewable generation. Valuing energy storage is complex, however, and must consider future system requirements, as well as the potential role of energy storage technologies and other competing sources of flexibility. Experts at our workshop today will present details on a number of storage technologies, including case studies of ongoing projects in Ireland, and will explore the role of storage within the wider system.



## DR WILLIAM GILLETT

EASAC Energy Programme Director

On behalf of the European Academies Science Advisory Council (EASAC), it is my pleasure to welcome you here today. This workshop has been organised back-to-back with a meeting of an EASAC working group, which is preparing a report for European policy-makers on 'Valuing dedicated storage on electrical power systems'. EASAC was set up in 2001 by all of the national science academies of Europe to provide independent scientific advice to European policy-makers and stakeholders, including those in the European Commission, the European Parliament and the European Council. The outcomes of today's open workshop are expected to make an important contribution to the framing of that advice.



Acadamh Ríoga na hÉireann  
Royal Irish Academy

