



**Large-scale Energy Storage**  
**12:30-14:00, Thursday 24 January**  
**Committee Room 2, Scottish Parliament**  
**Chair: Sarah Boyack MSP**

**1. Attendees**

A provisional list of attendees is attached to the end of this note. If you attended and are not shown on the list, please email Gavin Donoghue ([gdonoghue@scottishrenewables.com](mailto:gdonoghue@scottishrenewables.com))

**2. Welcome/ New Rules for CPGs**

Sarah Boyack MSP welcomed everyone to the meeting and informed members that new rules for Cross Party Groups in the Scottish Parliament had come into force as of 24 January 2013. A summary of these new rules was distributed to members alongside the agenda for the meeting.

Ms Boyack commented that SPREEE was one of the most active and transparent of all CPGs and, as such, already complies with the majority of the new rules. However, the Conveners and Secretariat will work with the Standards, Procedures and Public Appointments Committee to ensure that the group is fully compliant with all new rules going forward. Group officers will report back on any feedback from the workshops the Scottish Parliament is currently running on the rule changes.

Ms Boyack then introduced the day's speakers and informed the group that the presentations would be available after the meeting.

**3. Presentation: Craig Dyke (National Grid), 'Transmission perspectives on energy storage'.**

Craig informed the group that most balancing of the grid was done by generators themselves rather than National Grid and that the plant mix in the system was currently changing, i.e. there were more renewable sources. He then outlined four types of balancing tool currently available, such as flexible thermal plant, storage, demand side response, and interconnectors. He also noted that storage had been used for decades; that gas can be used for the storage of electricity as well; and that storage can also play an important role in helping deal with the challenges that the intermittent nature of wind power presents.

**4. Presentation: Andy Gregory (SSE Renewables), 'SSE Energy Storage'.** Andy outlined the four pumped storage schemes that were currently operational in the UK, including two in Scotland at Foyers and Cruachan. He then outlined in more detail SSE's operational pumped-hydro scheme at Foyers and spoke about two other potential sites for future pumped storage schemes in Scotland, Coire Glas and Balmacaan. He then went on to discuss SSE's current work on different types of batteries, including NaS and Lithium batteries, the latter of which is currently being used on Orkney to store surplus wind-generated electricity and release it at times of peak demand.

**5. Presentation: Nigel Holmes (Scottish Hydrogen and Fuel Cell Association), 'Power Beyond the Grid – Hydrogen for Energy Storage and Export'.** Nigel started by outlining the global market for hydrogen and showed the need for load balancing with energy storage, especially with an increase of wind energy on the system. He then outlined why he believes hydrogen is an excellent means of storing energy and outlined examples of where it could be used, including effectively complementing renewable energy development in islands; off-grid storage; electrolysis and chemical production; and in fuel for cars and ferries.

## 6. Questions

A range of questions were directed at the panel (please note that the intention of this meeting note is not to record a verbatim account of the meeting)

Questions posed to the panel came from:

- **Bill Walker MSP** emphasising the storage potential of places like Longannet power station and asked the panel if they thought the Government had given up on ideas like clean coal and CCS
- **Mike Mackenzie MSP** asking about the potential contribution of smarter grids and storage heaters in places like Shetland and whether there was a place for encouraging this with lower customer tariffs
- **Cllr Ian Chisholm (Fife)** highlighting compressed air technology and asked if there were enough Glens for pumped hydro storage
- **Patrick Harvie MSP** asking about the role of electric vehicles in energy storage and about the timing of when these would be recharged
- **Bill Rodger** underlining the pressing need for energy storage and asked what kind of technologies National Grid were currently looking at

7. Ms Boyack then outlined to the group the dates for the next meetings of SPREEE:

- **12:30-14:00, 21 March, Scottish Parliament** Meeting on the housing retrofit agenda
- **12:30-14:00, 13 June, Scottish Parliament** Meeting on the role of Local Authorities in utilising energy efficiency and renewable energy

## 8. AOB

For suggestions of correction to this meeting note and requests for copies of the presentations, please contact Gavin Donoghue ([gdonoghue@scottishrenewables.com](mailto:gdonoghue@scottishrenewables.com))

## Attendees

Name	
David Budge	Budge PR
Graham Lang	CATS
Iain MacKinnon	Charlesfield First LLP
Trevor Jackson	Charlesfield First LLP
Calum Smith	Claudia Beamish MSP
Roland Stiven	Confor
Dr Andy Kerr	Edinburgh Centre for Carbon Innovation
Jim Hart	Edinburgh Centre for Carbon Innovation
Prof Ian M. Arbon	EngineeredSolutions
Ian Lindsay	Eurowind
CLlr Ian Chisholm	Fife Council
Hugh Muschamp	Fife Council
Kelly McIntyre	Fintry Development Trust
Alastair Martin	Flexitricity
Mike Thomas	Forth Energy
Douglas Prentice	Geocapita
Mike Banks	Haskoning UK
Alan Simpson	HBJ Gateley
Hugh Hunter Gordon	Kirknewton CDT
Simon Munro	LoganPM
Michael Murphy	MacRoberts LLP
Alan Kyle	MWH Global
Craig McMaster	MWH Global
Craig Dyke	National Grid
John Taylor	National Grid
Alison Hardie	Ofgem
Jennifer Davie	Pinsent Masons
Ronan Beale	Pinsent Masons
Neil Phillips	Positive Solutions
Anne Stevenson	Repower
Simon Fraser	RES
Kate Bellew	RSPB Scotland
Fiona Trafton	Sarah Boyack MSP
	Scottish Hydrogen and Fuel Cell
Nigel Holmes	Association
Gavin Donoghue	Scottish Renewables
Niall Stuart	Scottish Renewables
Barry Truswell	Scott-Moncrieff
Graeme Cook	SPICe
Andy Gregory	SSE
George Baxter	SSE
Andrew Stacey	Stag Energy Development Co. Ltd
Kim Karam	Tavish Scott MSP
Dr. Chuan Zhang	The Crown Estate
Richard Leslie	Tods Murray LLP
Neil Sutherland	Wardell Armstrong LLP

Bill Walker MSP  
Sarah Boyack MSP  
Chic Brodie MSP  
Patrick Harvie MSP  
Jean Urquhart MSP  
Jim Eadie MSP  
Graeme Pearson MSP  
Bill Rodger  
Blair Armstrong  
Colin Campbell  
Derek Mitchell  
Donald Young  
Ed Maddox  
Enrique Troncoso  
Gordon Morgan  
Grant Wilson