Future Resilience of the UK Electricity System

Project Launch Event

15th January 2019
Health and Safety
Energy Research Partnership

Today’s speakers

Sam Stephens
Principal Engineer, Atkins, member of SNC-Lavalin Group

Peter Jones
Technical Manager, Energy Research Partnership

Matt Crossman
Team Leader, National Infrastructure Commission

Owen Wilkes
Product Development Manager, National Grid

Juliet Mian
Associate Director, Infrastructure Advisory, Arup
Energy Research Partnership

Agenda

10:00  Introduction  
   – Sam Stephens, Atkins, member of SNC-Lavalin Group
10:15  Key Findings of the work  
   – Peter Jones, Technical Manager, ERP
11:00  Resilience Planning for the Future - Panel Q&A  
   – Chair: Sam Stephens, Atkins  
   – Matt Crossman, Resilience Team Leader, National Infrastructure Commission  
   – Owen Wilkes, Product Development Manager, National Grid  
   – Juliet Mian, Associate Director, Arup
12:00  Networking Lunch
Energy Research Partnership

About the Energy Research Partnership

• ERP is a public private partnership which brings together a diverse range of participants from across the energy sector, with senior level representation from industry, academia and government.

• Its primary purpose is to offer a consultative forum, which aims to accelerate innovation in the energy sector through enhanced dialogue and communication across industry and government.

• It is an independent, not for profit organisation whose activities are funded by Member contributions.

• ERP believes that the focus should be on optimising the whole system. Facts and fundamental engineering and economic principles, not incumbent or biased positions, should guide decision making.
Definition

- Development of project scope and objectives
- Agreement with stakeholders and ERP members
- Engagement with Project Advisors

Consultation

- Formal input from working group members – 2 to 6 page submission in response to questions
- Review, discussion, debate at working group meeting (11th June 2018)
- Three drafts produced over three month period to iterate and refine conclusions.
- Testing of conclusions on stakeholders and ERP members

Collation

- Report published 18th November 2018
- Support to other industry resilience forums
- Launch event on 15th January 2019

Dissemination
## Energy Research Partnership

### Working Group members

**ERP Members**

- National Grid Electricity Transmission
- Atkins, member of SNC-Lavalin Group
- Arup
- Energy Systems Catapult
- ABB
- EDF Energy
- BEIS
- Welsh Government
- National Infrastructure Commission

**Project Advisors**

- Energy Networks Association
- Electricity North West
- Northern Power Grid
- Scottish Power Energy Networks
- UK Power Networks
- SSE
- University of Manchester
Project objectives

To identify and assess energy landscape changes that could impact the future resilience of the electricity system, and deduce the key focus areas for their management.

Objective 1: Review current industry definition(s) of, the means of managing resilience within the UK Electricity System, including a round-up of current industry work on identifying resilience risks, and measures to improve resilience.

Objective 2: Assess the impact of the changing energy landscape (including cross-sector dependencies) on how resilience is managed within the UK Electricity System.

Objective 3: Develop an objective view of how to manage levels of resilience in the future, and what focus areas/ actions are required to enable the industry to adapt to the changing energy landscape (focus – up to 2030).
Project scope

• In scope:
  – Dependency on electricity system
  – Future effects
  – High level whole systems analysis

• Outside of scope
  – Detailed consideration of specific hazards – these are covered elsewhere
  – Black start arrangements
  – Detailed analysis of system, risks and interdependencies