Managing Flexibility Whilst Decarbonising the GB Electricity System
Energy Research Partnership

Background - Increasing concern about the implications for UK electricity grid with increasing renewable penetration

• What will the UK grid have to handle in 2030 & also 2050?

• How do we get from here (2014) to there (2030….& 2050?) meeting environmental targets with supply reliability?
  • Mindful of cost & avoiding new under-utilised assets

• What needs to be in place to ensure the grid is manageable?

• Are there any No/Low regrets decisions we can make today that will benefit tomorrow?
  • Projects likely to be costly / with long lead times
Further Work – What else should be done in the light of the work completed to date?

• Renewable technologies – holistic approach vs standalone

• Clarify what capabilities are critical or useful
  • How can we encourage their development & deployment?

• A variety of solutions exist to many of the issues identified
  • How do we encourage innovation without ‘picking winners’?
  • ERP is there to stimulate & encourage innovation

• Paper is designed to move the thinking forward
  • Open doors to new ideas
  • Highlight potential risks of a decarbonisation shortfall and the security risks on the journey
Progress to Date

• DECC – moving to a more holistic modelling approach

• CCC – ERP work used as a comparator for their model

• National Grid / OFGEM – moving towards valuing ancillary services

• Helped to broaden the debate beyond the levelised cost of electricity (LCOE)