

Managing Flexibility Whilst Decarbonising the GB Electricity System

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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)