Unlocking Flexibility for Net Zero

Presentation to PGES

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ELEXON

Flexibility

- We cannot continue our historic approach of matching electricity generation to customer demand.

- With fewer controllable assets making up the generation mix and faced with increasing costs for balancing the system, including paying renewables not to generate, there is increasing value in flexibility.

- Similarly, flexible assets can reduce, or even avoid, network investment as peaks are smoothed and local flexible assets take some of the strain.

- That flexibility (the ability to both turn up and turn down, or shift, demand) comprises several emerging technologies, but all require the market arrangements, or commercial rules, to recognise and reward them.

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Flexibility

- At ELEXON, where we are responsible for the management of and ensuring compliance with those rules, we are already delivering the necessary changes to enable and sustain flexible assets and work continues to deliver platforms on which these products can be traded and made as widely available as possible.

- Whether the customer receives a direct, identifiable benefit in £x or it's wrapped into a lower overall energy price will depend on the individual retailer or aggregator. But regardless, they will receive indirect benefit of not having to fund more expensive balancing actions (the System Operator spent over £280m in Q1 this year on balancing services) or avoiding paying for infrastructure reinforcement (worth an estimated £17-40bn of value for consumers by 2050 according to BEIS/Carbon Trust 2016 report).

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Flexibility

- The technologies are arriving, the market arrangements are enabling them and the consumer can achieve these benefits without changing their behaviours as automation takes the place of human intervention.

- In fact, evidence shows more localised flexible services, often based in the community, are having a positive engagement effect on consumers, raising awareness of energy issues and the goal of achieving net zero.

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