

power
responsive

nationalgrid

Current status of Demand Response markets in GB

Thomas Maidonis

Storage & Flexibility Expert
National Grid

06/07/2017



National Grid's job is to Bring Energy to Life



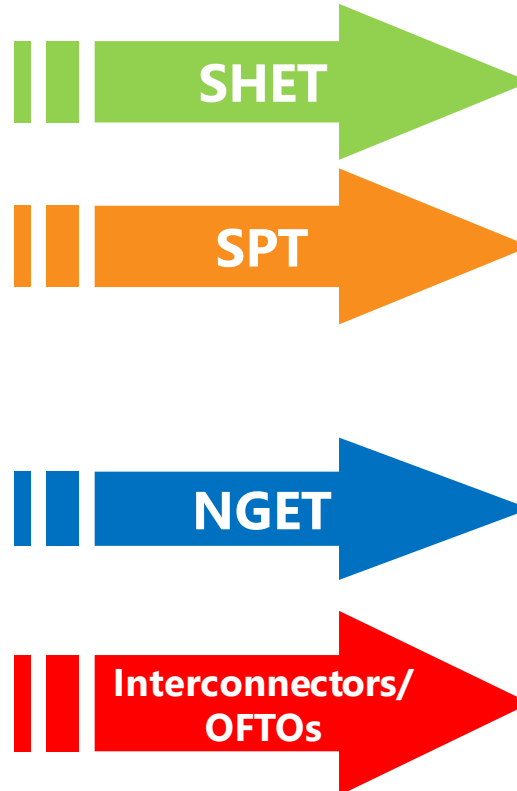
power
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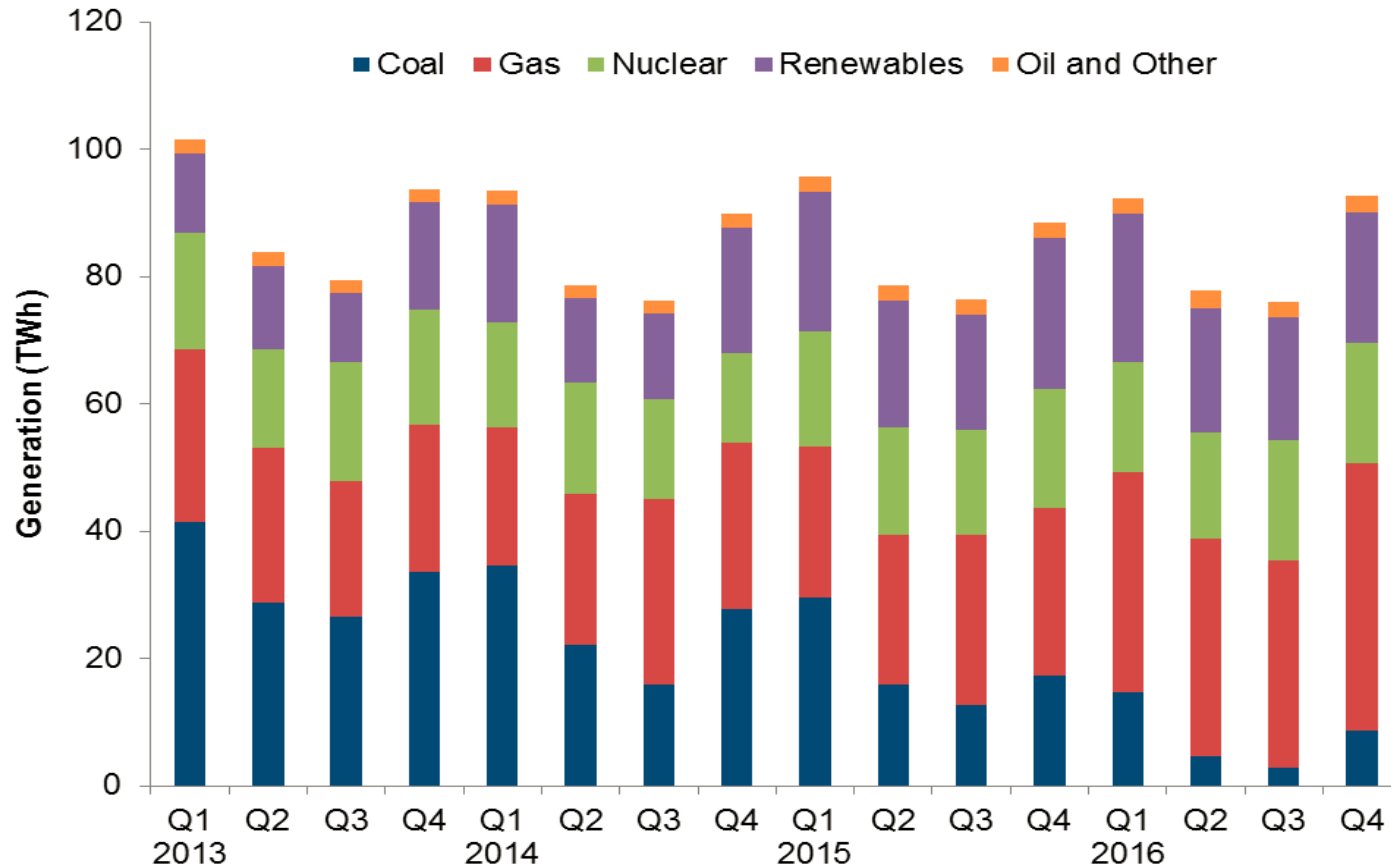
Electricity Transmission Ownership & System Operation

Multiple TOs

One SO





Electricity generation in the UK



The Electricity Industry is Changing

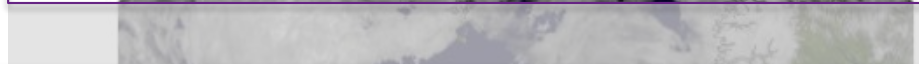



NG Control Room  @NGControlRoom · May 26 
#Solar has just broken another record in Great Britain, providing 8.7 GW (24.3% of demand)




The Electricity Industry is Changing

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 **NG Control Room** @NGControlRoom · Jun 7
#Renewables (wind, solar, biomass, hydro) breaking another record at 1pm today providing 18.7 GW (50.7% of demand)

2 105 81

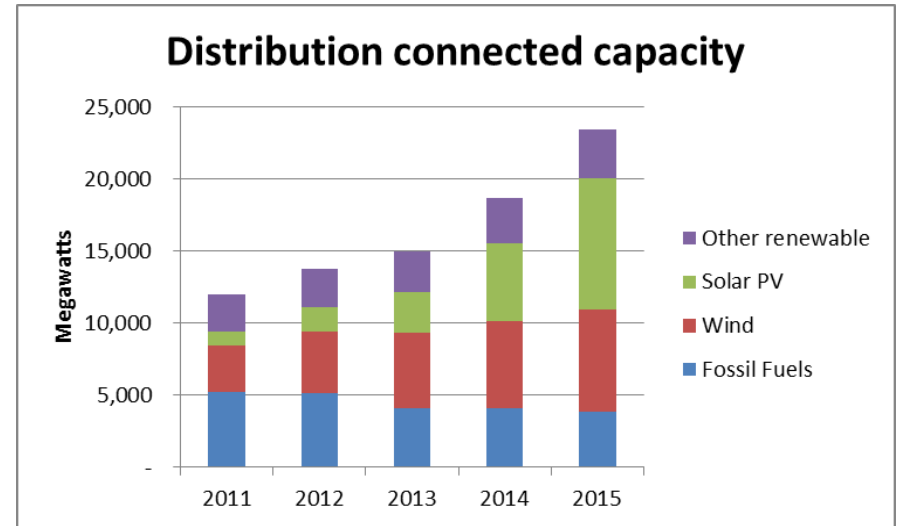
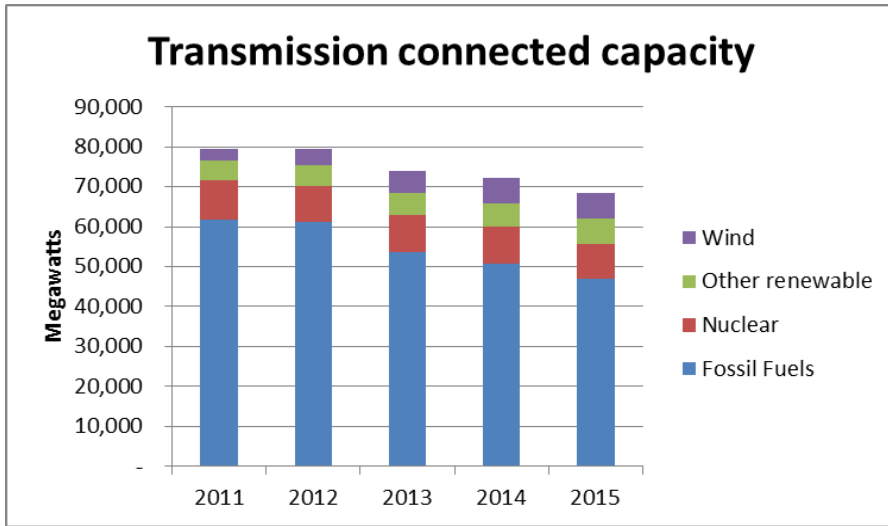


29 1.1K 1.1K

The Electricity Industry is Changing

Area	Prediction in 2012	Actual figures
Installed Solar PV	1GW by 2020	11GW in 2017
Installed onshore wind	11GW by 2020	15GW in 2017 (5GW embedded)
Level of embedded generation	12% by 2020	23% in 2017

The electricity industry is changing

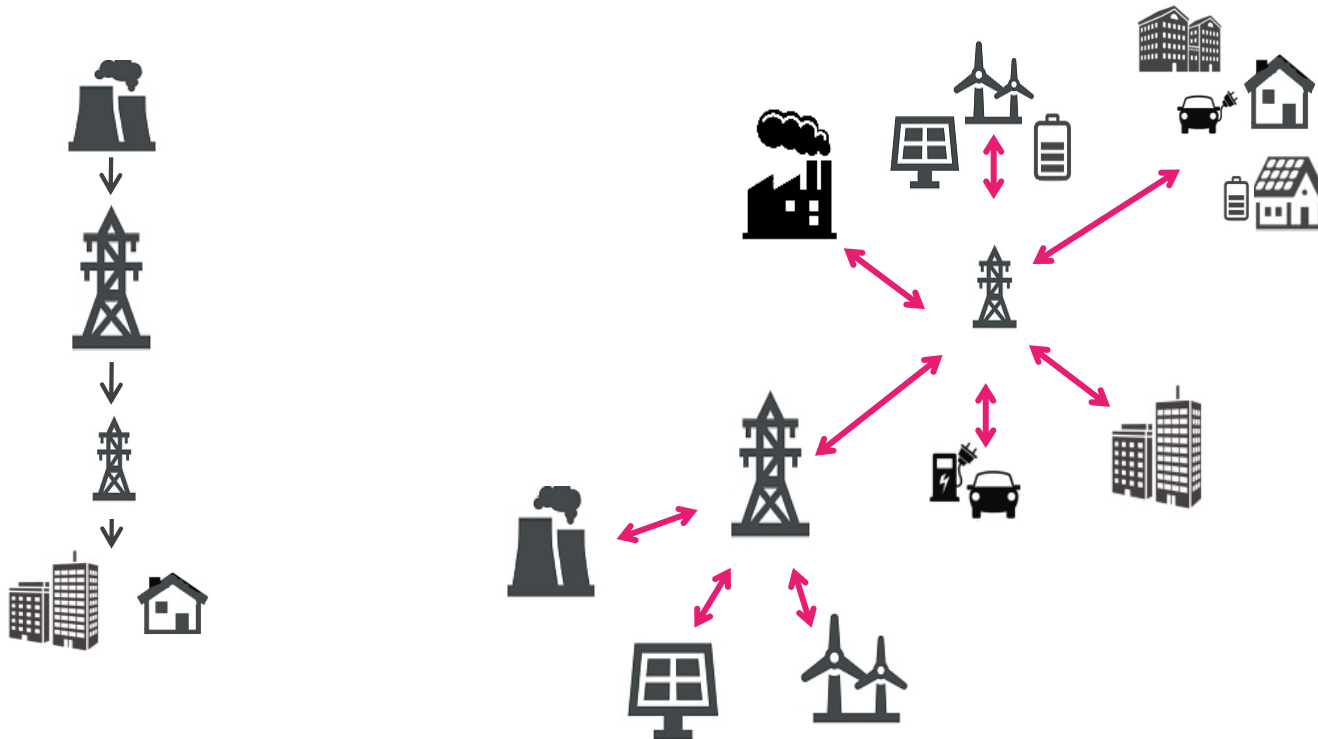


Better coordination required

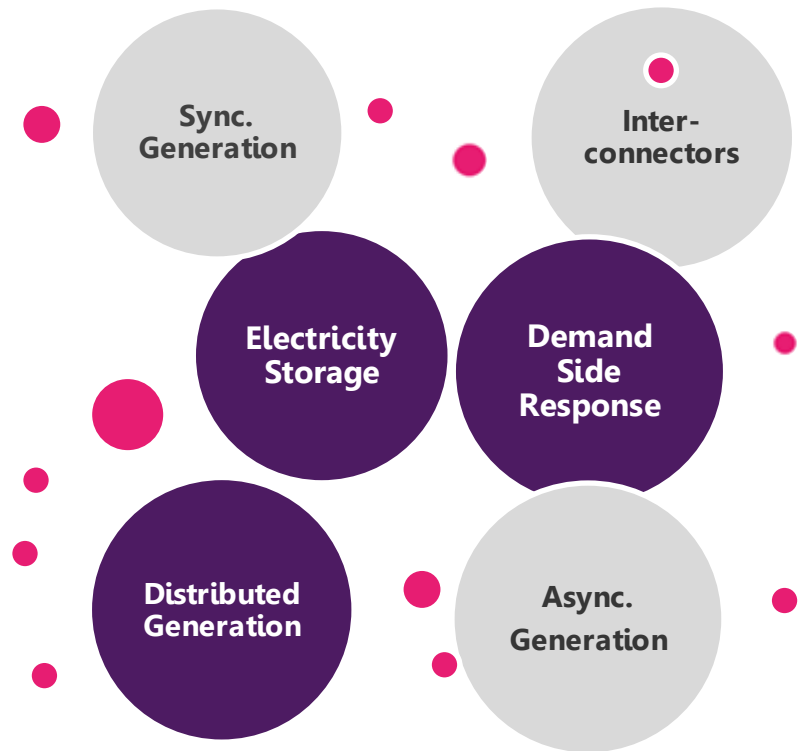
New Interactions – New System Needs

Yesterday

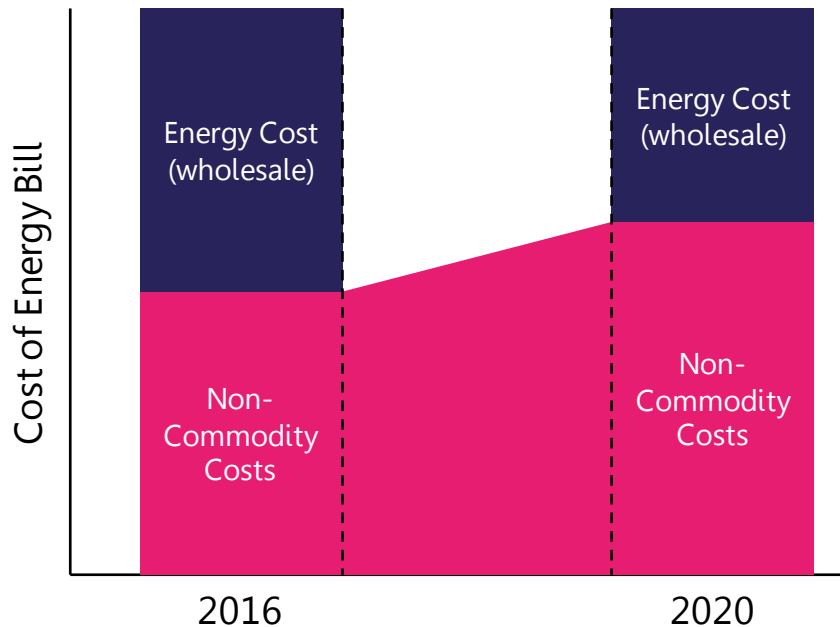
Future System – increased interactions



Our System Vision for Flexibility



The I&C DSR Perspective



Potential Benefits



Cost Savings - Shifting energy use away from periods of high network charges

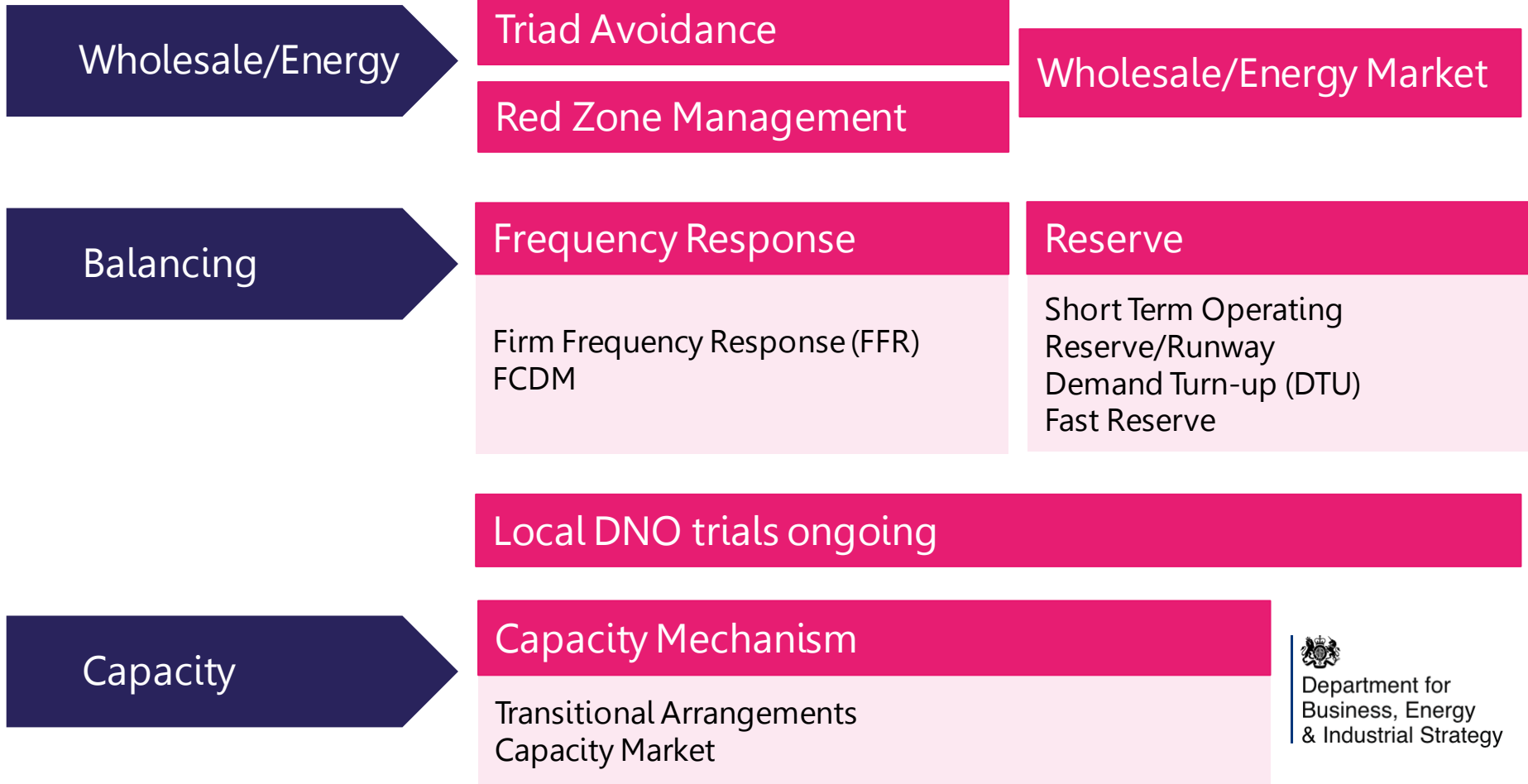


Revenue Potential - Schemes to reduce, increase, shift usage to a given signal have revenue available to earn

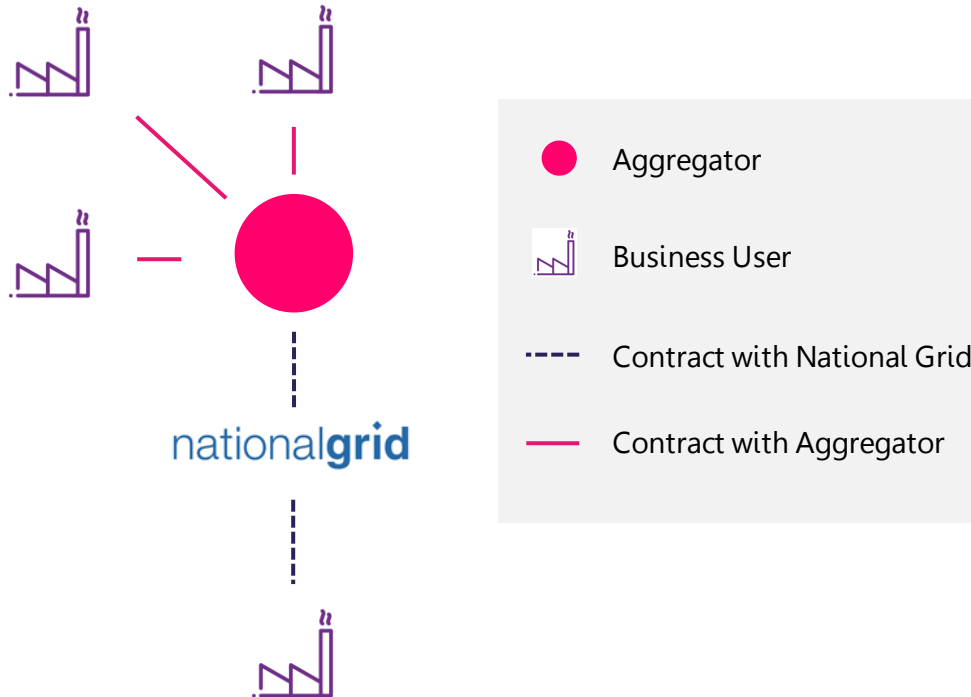


Low Carbon System - Offering flexibility of existing assets helps manage a low-carbon, majority renewable energy system

Possible Revenue Streams



Ways of Participating in DSR



Considerations

Technical Parameters of assets/load

Business capability & understanding

Access to technology solution

Case Studies

Most Recent



To help you browse through the case studies shown below, we've categorised them by sector.

Retail



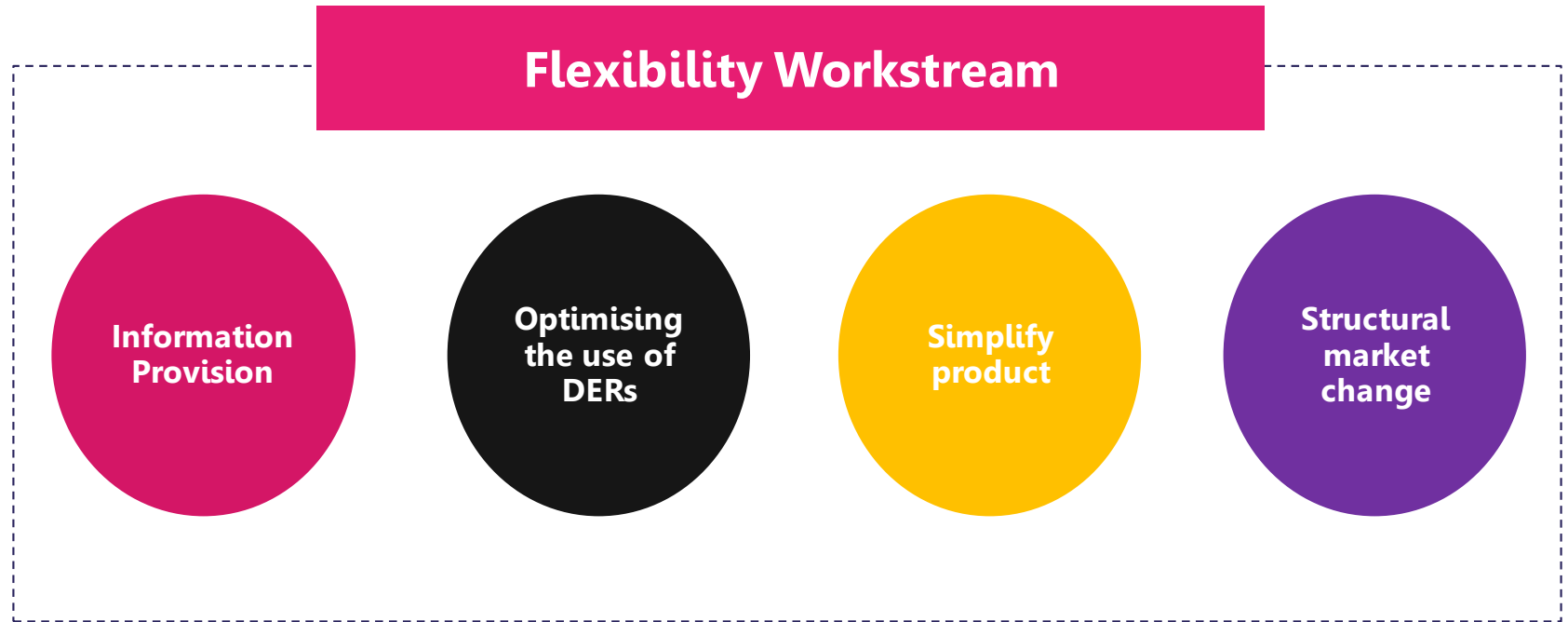
Hotel & Leisure



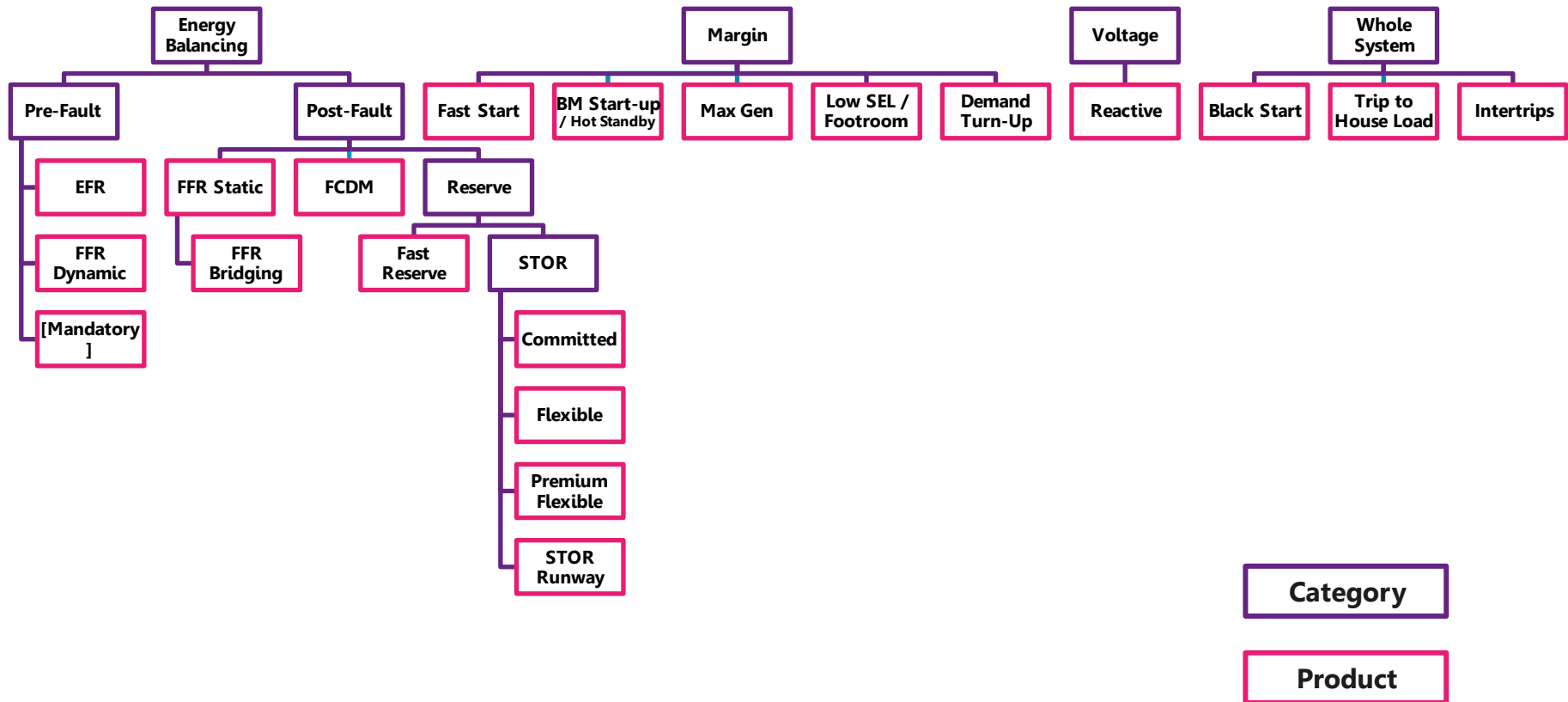
Manufacturing



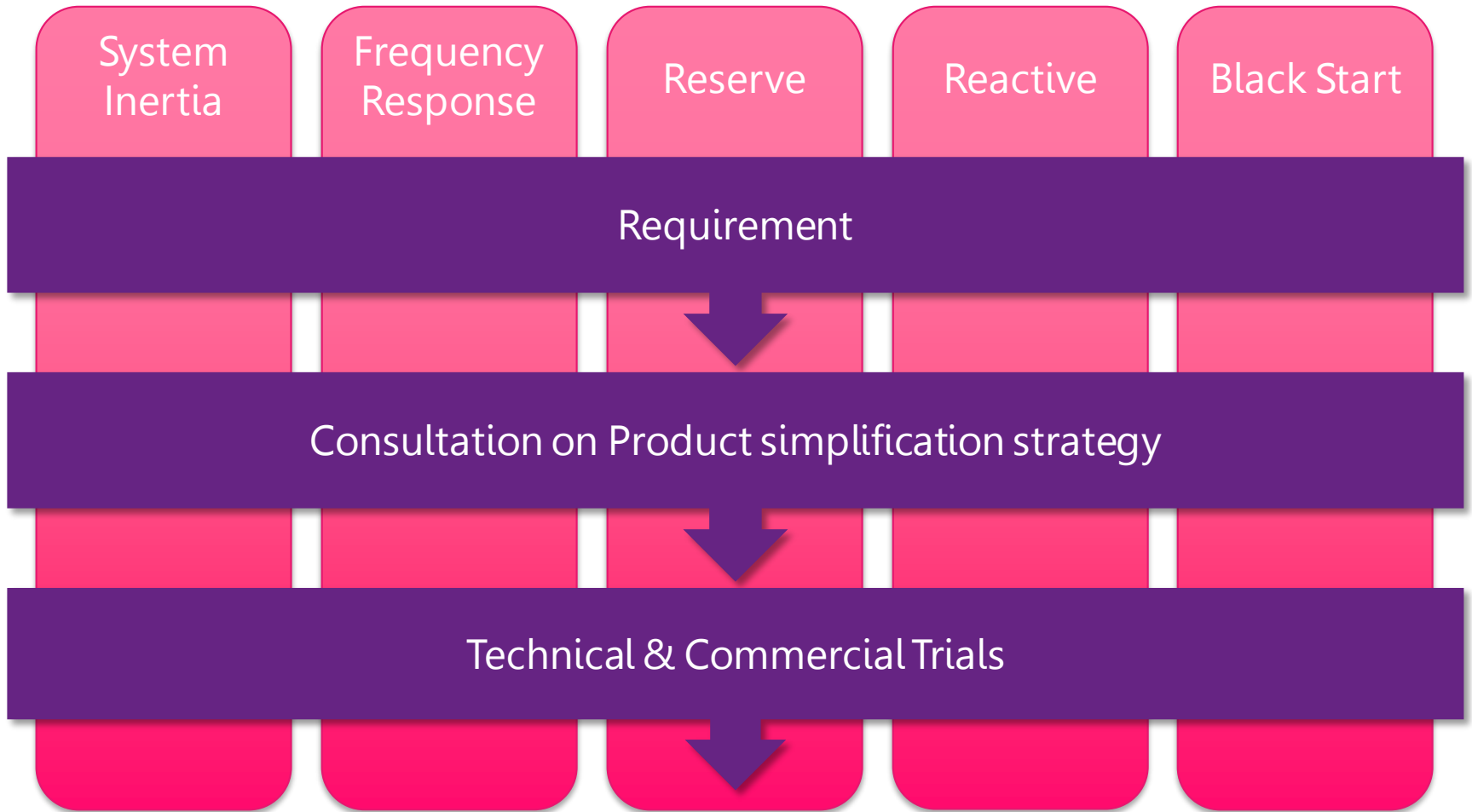
What's next?



Current Services Available



System Needs & Product Strategy



System Needs & Product Strategy



- Report out on 13 June

<http://www2.nationalgrid.com/UK/Services/Balancing-services/Future-of-balancing-services/>

- Consultation open till 18 July

Future Vision for Ancillary Services

New Procurement Approaches

- More real time markets in line with EU aspirations
- Pay-as-clear auctions

Wider Markets

- Investigate access to the Balancing Mechanism for non-BM parties
- Understand how new technologies and business models can be commercialised

To get in touch...

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LinkedIn:

Power Responsive

For National Grid service opportunities:

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