

power  
responsive

national**grid**

## Overview, Opportunities and Outlook for DSR

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# The energy industry is undergoing a significant transformation

## Decar-bonisation

- Fewer synchronous generators and increased renewables



## Decen-tralisation

- Generation units decrease in size and move closer to consumption



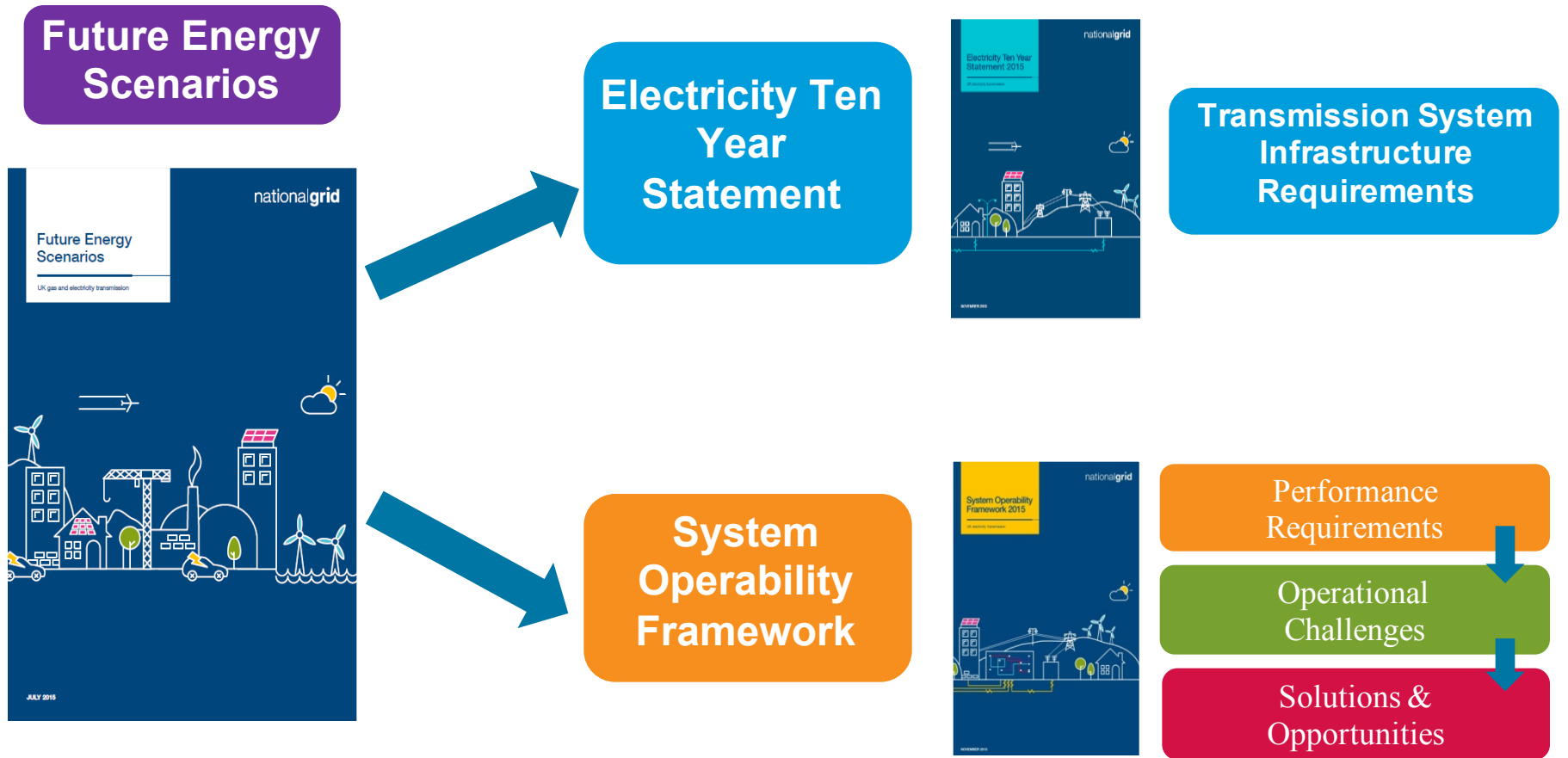
## Digiti-sation

- New electricity assets such as distributed storage and Electric Vehicles



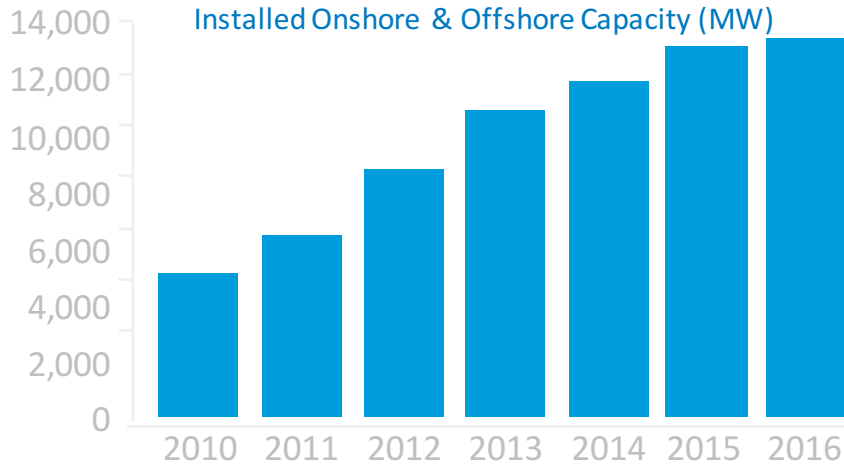
...resulting in:  
**greater  
system  
uncertainty**

# Scenario planning approach identifies evolving operability challenges of a transforming system

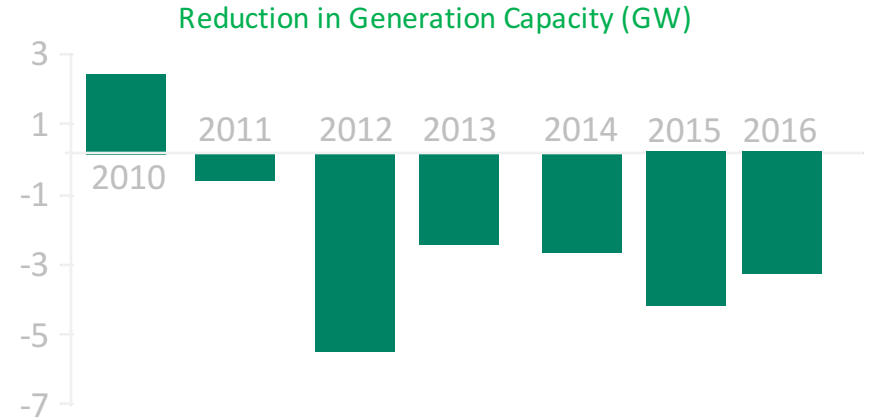


# Changing Energy Landscape

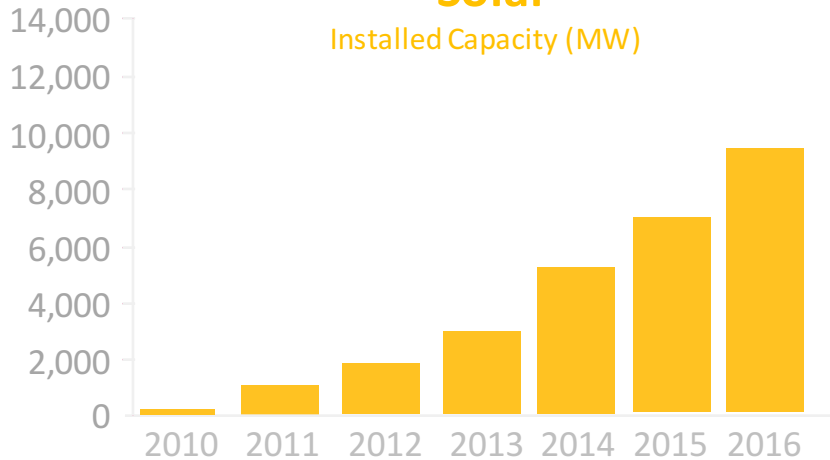
## Wind



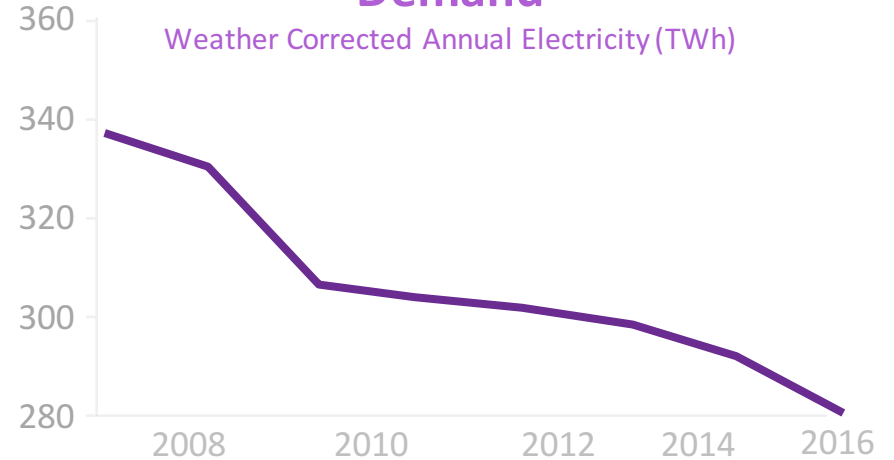
## Fossil



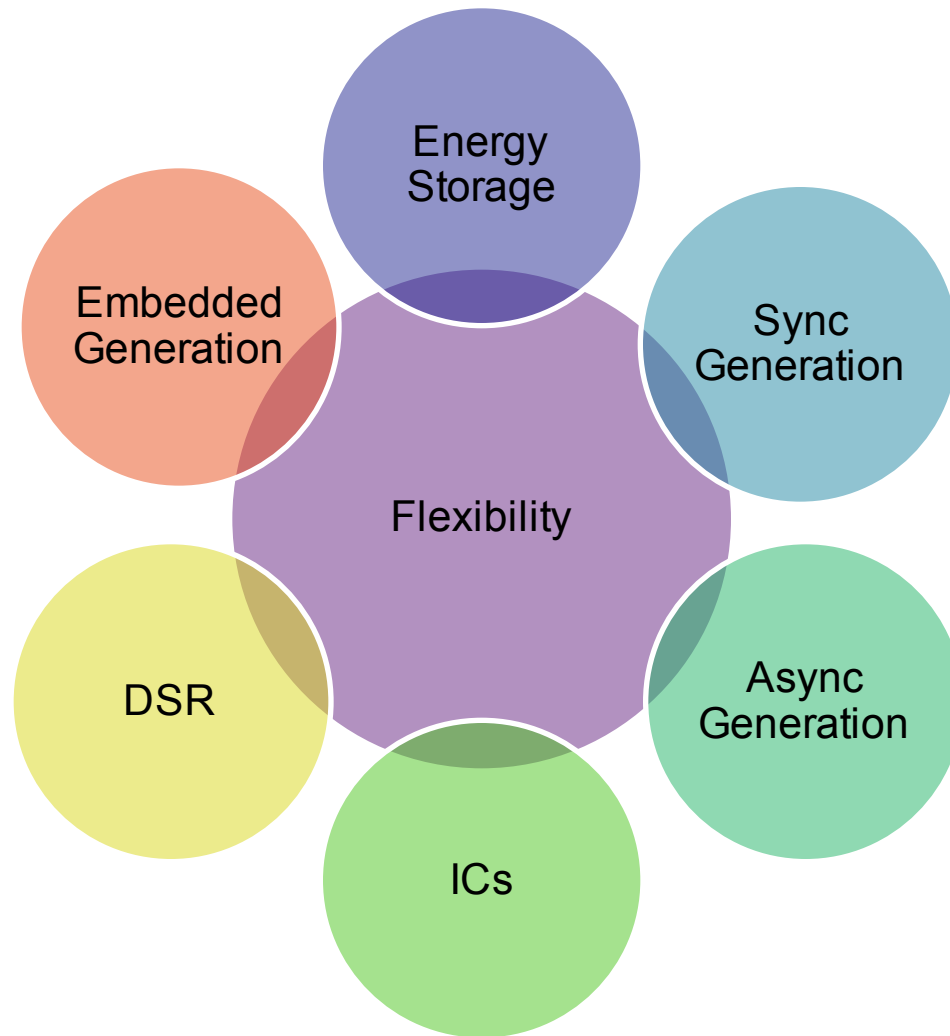
## Solar



## Demand



Changing environment results in requirement for increased flexibility – a range of technologies can contribute



# Opportunities for Businesses to Benefit Today



## Cost Savings

Triad Avoidance

Red Zone Management



## Revenue Potential

### Frequency Response

Firm Frequency Response (FFR)/Bridging  
Frequency Control by Demand Management (FCDM)  
Enhanced Frequency Response (EFR)

### Reserve

Short Term Operating Reserve (STOR)/Runway  
Demand Turn-up  
Fast Reserve

### Local Distribution Services

### Capacity Mechanism

Transitional Arrangements  
Capacity Market

# Current Focus for Power Responsive



**1** **Customer Engagement: Raising Awareness & Clarity**

**2** **Increasing Confidence in Flexibility**

**3** **Evolution of Flexibility Markets**

**Improving Market Information**

**Simplifying Services**

“Evolution” not “Revolution”

Incremental Improvements