

Market Flexibility

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Drivers for change

Decarbonisation

Fewer synchronous generators and increased renewables



Decentralisation

Generation units decrease in size and move closer to consumption



Digitisation.

New electricity assets such as distributed storage and Electric Vehicles



...resulting in:
greater system uncertainty
and an
increased
requirement for
flexibility

Large number
of flexibility
providers
anticipated

Flexibility market framework



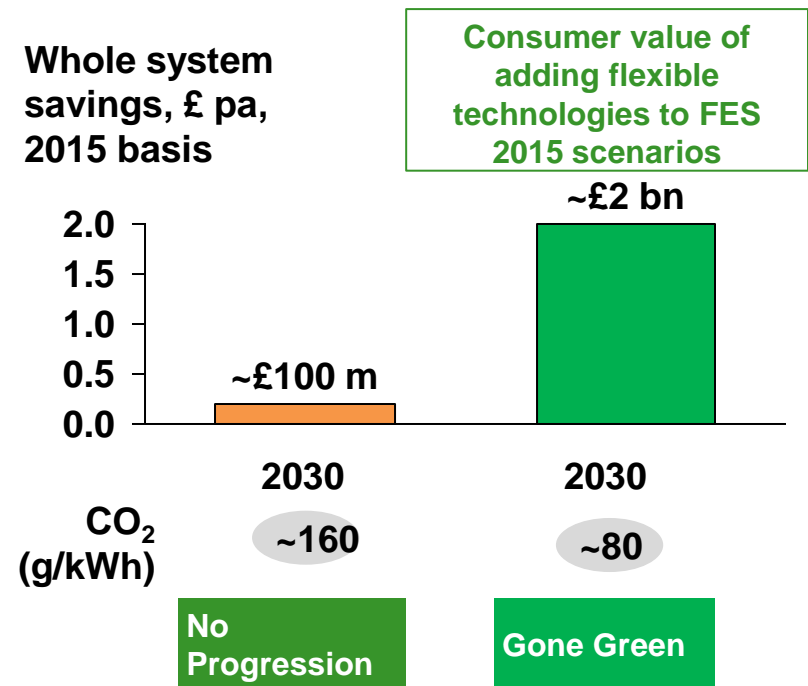
Our aspiration is a flexible market framework which is *Accessible* and delivers value to the end consumer

Consumer value – up to ~ £2bn pa

Flexibility creates consumer value in four ways

- 1 Reducing wholesale costs by displacing high cost plant
- 2 Reducing the cost of curtailing renewables
- 3 Reducing balancing costs of scheduling flexible generation
- 4 Reducing costs of network congestion

Adding¹ flexibility could deliver up to £2bn pa of consumer value by 2030



The value of flexibility is highest in scenarios with high volumes of inflexible capacity

Source: National Grid internal analysis, FES 2015, Imperial College & Carbon Trust (*Can Storage help reduce the cost of a Future Electricity System*).
 1. Flexibility added could include storage, DSR & interconnection; amount deployed dependent on economics of technologies and the economic value available in the market. 2. Compared with operating the GG system with no flexibility.

Flexibility work stream deliverables

Alignment with DBEIS/Ofgem CfE

Deliverables

Achieved by
2018

Information
Provision

- Improve information provided to market participants

Reduced barriers to entry

Shared
services
framework

- Flexibility providers deliver services to multiple market participants

Improved business cases due to multiple revenue streams

Commercial/
Strategy

Simplify
product

- Clear understanding of balancing services required to meet system operability and simplification of products where appropriate

Wide range of flex providers and improved commercial strategy

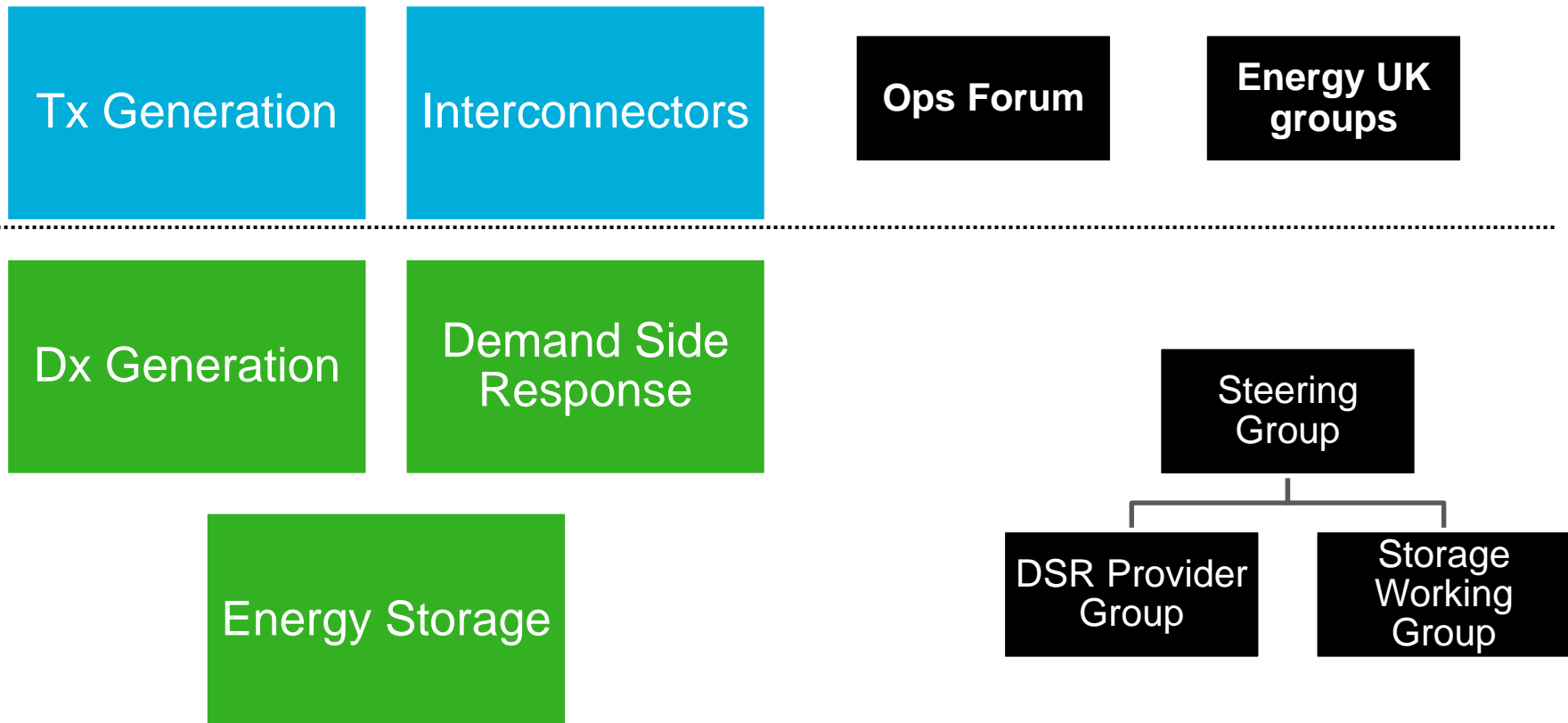
Structural
market
change

- Common vision for a future market framework which incentivizes flexibility
- Clear roadmap to delivering that vision

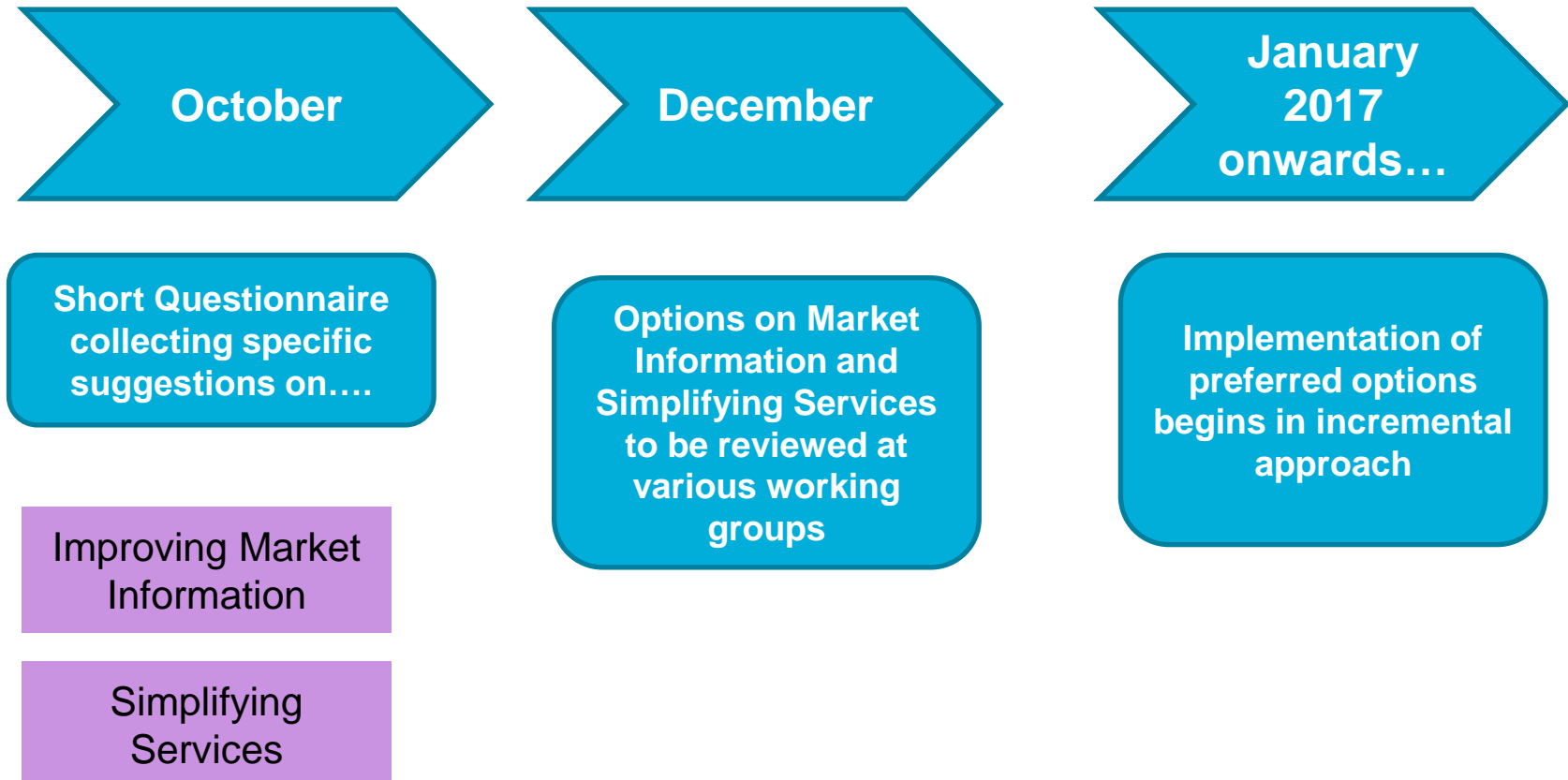
Clear road map for market framework increases investor confidence

Target stakeholder forums

Utilising existing forums & groups



Flexibility deliverables timescales



Q&A

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