Welcome

Kayte O’Neill
Head of Strategy & Regulation
Housekeeping
The energy landscape has been changing

Decarbonisation
400%
Increase in all renewable capacity since 2010

Decentralisation
3 times
More distributed capacity connected than in 2010

Digitalisation
12.3 mil
Smart and advanced meters in homes & businesses in GB
System operations are changing as a result

**March 25, 2017**

*Transmission demand was lower in the day than overnight for the FIRST TIME*

**June 7, 2017**

*Renewables provided over 50% of generation for the first time*

**April 24, 2018**

*The electricity system ran for 76 hours without coal*
The future is uncertain

**Uncertain Demand**
3 to 11 million
Electric Vehicles driving on our roads by 2030

**Uncertain Supply**
37 to 50 GW
Of wind capacity generating on the system by 2030

**Uncertain Markets**
10s to 1000s
Of active energy suppliers across the country by 2030

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nationalgridESO
We are changing the way we interact with the industry

- **Jan 2017**
  NG, BEIS and Ofgem announce plans to create greater separation of the ESO from NG Group

- **Mar 2018**
  ESO publishes its 2018/19 Forward Plan

- **Sep 2018**
  ESO launches its new identity

- **Jan 2019**
  ESO publishes its 2019/21 draft Forward Plan for consultation and stakeholder workshop

- **Mar 2019**
  ESO publishes its 2019/21 Forward Plan

- **Apr 2019**
  ESO becomes legally separate
Our SO Mission focuses us on delivering value

We keep the lights on and the gas flowing round the clock for GB energy consumers; we play an essential role in enabling the transition to a more sustainable energy future.

Therefore we believe that:

- We deliver value for consumers first and foremost, while also ensuring that we build and maintain trusted partnerships with our customers and stakeholders
- We influence the energy debate positively with our independent perspective
- Through using markets, data and networks in new ways across gas and electricity, we help move GB towards a more reliable, affordable and sustainable energy world
- An incentivised for-profit model ensures we deliver the best long-term outcomes for consumers, society and the GB economy
Introduction to the carousels

Kayte O’Neill
The activities we deliver under our roles need to evolve

- Managing system balancing and operability
- Facilitating competitive markets
- Facilitating whole system outcomes
- Supporting competition in networks

- 2018-21 incentives framework
- 2021-2026 separate regulatory framework
- 2030 strategy
Introduction to our 4 ESO roles

#1 Managing system balancing and operability

#2 Facilitating competitive markets

#3 Facilitating whole system outcomes

#4 Supporting competition in networks

Richard Smith, Head of Commercial
Ro Quinn, Head of National Control

Julian Leslie, Head of Networks
Cathy McClay, Head of Future Markets
Carousels
Role #1: Managing system balancing and operability

Richard Smith
Head of Commercial

Ro Quinn
Head of National Control
How the world might look in 2030

**Principle 1**
Support market participants to make informed decisions by providing user friendly, comprehensive and accurate information

**Potential themes**
- Equal and open access to data
- Coherent and complete whole system data

**Principle 2**
Drive overall efficiency and transparency in balancing services, taking into account impacts of ESO actions across time horizons

**Potential themes**
- Right suite of tools to operate the system efficiently and transparently
- Stable balancing costs
Key enablers that could unlock this 2030 ambition are:

**#1.1**
Reimagining tools for the *21st Century Electricity Control Room* for a low carbon, decentralised and digitalised world

**#1.2**
A comprehensive national *register for energy assets* will sit alongside other existing and emerging data sets to complete that picture

**#1.3**
Data and insights are easily accessible in an *open architecture portal*
Role #2: Facilitating competitive markets

Cathy McClay
Head of Future Markets
How the world might look in 2030

Principle 3
Ensure the rules and processes for procuring balancing services maximises competition where possible and are simple, fair and transparent

Principle 4
Promote competition in the wholesale and capacity markets

Potential themes
• System security and operability is delivered by competitive, transparent and accessible markets
• Agile industry market frameworks to support change
• Underpinning infrastructure to allow efficient decision making
Key enablers that could unlock this 2030 ambition are:

#2.1 Short–term, liquid balancing services markets which deliver investor confidence and work with the wider set of markets

#2.2 A governance model which works for a large number of market participants, allowing sufficient pace of change whilst maintaining investor confidence

#2.3 An infrastructure that supports parties to make efficient decisions across a range of markets
Roles #3: Facilitating whole system outcomes

& Role #4: Supporting competition in networks

Julian Leslie
Head of Networks
How the world might look in 2030

Principle 5
Coordinate across system boundaries to deliver efficient network planning and development

Principle 6
Coordinate effectively to ensure efficient whole system operation and optimal use of resources

Principle 7
Facilitate timely, efficient and competitive network investments

Potential themes
• Planning, development, investment and operation of the GB T&D networks optimised on a whole electricity system basis irrespective of ownership boundaries.
• Solutions to T&D challenges open to a full range of participants, facilitating both market and asset solutions.
• Best overall value for consumers is achieved, irrespective of the ESO or DSO performing the analysis.
• All investment decisions of value are assessed through a consistent cost benefit approach across the whole electricity system
Key enablers that could unlock this 2030 ambition are:

**#3.1**
Aligned *commercial, technical and regulatory arrangements* across transmission and distribution

**#3.2**
Provision of *information and tools* to enable efficient whole system decisions across operational and investment timescales

**#3.3**
Driving *competition* so that all parties can offer solutions and participate
Panel

Richard Smith
Ro Quinn
Cathy McClay
Julian Leslie
Please keep engaging with us throughout the year

- **Sep 2018**
  - ESO 2030 Ambition Workshop

- **Oct 2018**
  - ESO publishes an *Industry Perspectives* paper

- **Jan 2019**
  - ESO publishes its 2019/21 draft Forward Plan for consultation and stakeholder workshop

- **Apr 2019**
  - ESO becomes legally separate

- **Mar 2019**
  - ESO publishes its 2019/21 Forward Plan and its draft RIIO-2 Business Plan

- **Q4 2019**
  - ESO publishes its RIIO-2 Business Plan