

# Welcome

Kayte O'Neill

*Head of Strategy &  
Regulation*



# Plan for today

- Overview of ESO Performance
- Principles 1 & 2

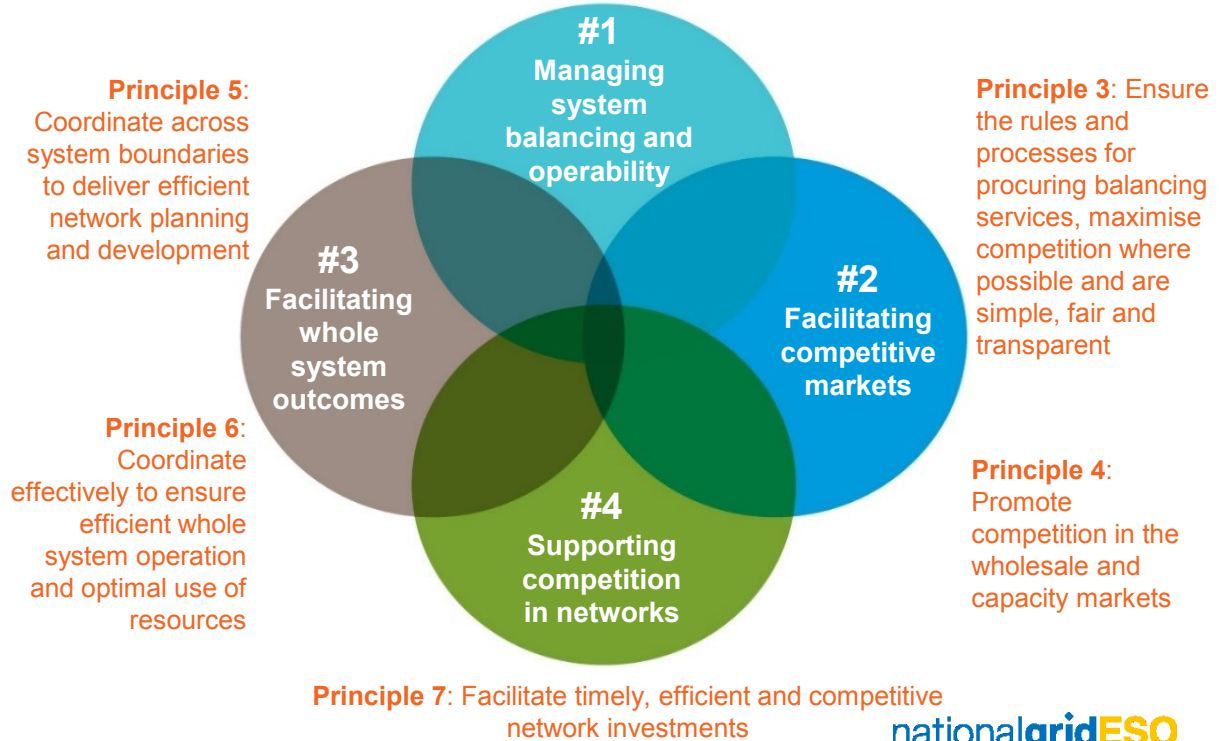
## Coffee Break (10.40-11.00)

- Principles 3-7
- All principles Q&A

## Lunch (12.30)

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

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



# ESO Overview

Fintan Slye

*Head of UK System  
Operator*



# 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



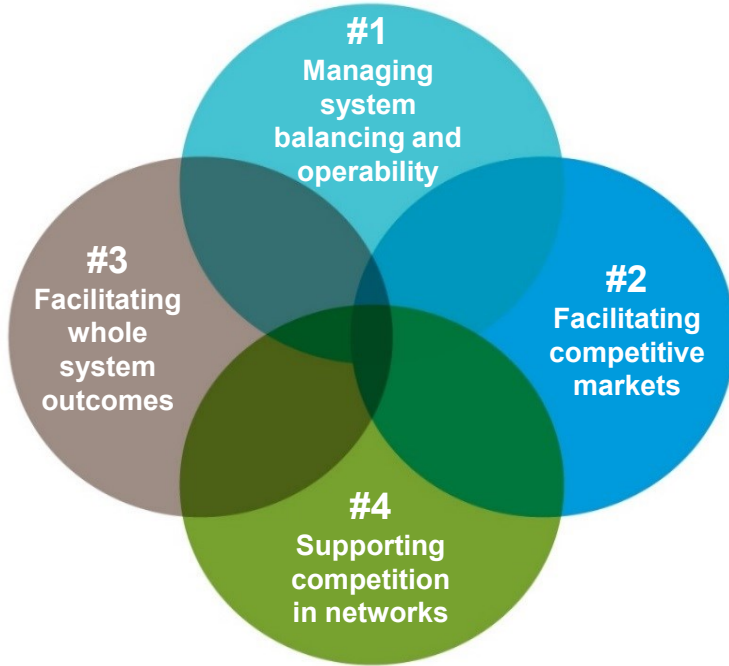
# Our SO Mission focuses us on delivering value

**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

## The activities we deliver under our roles are evolving



- **2018-21 incentives framework**
- **2021-2026 separate regulatory framework**
- **2030 strategy**



# ESO Incentives

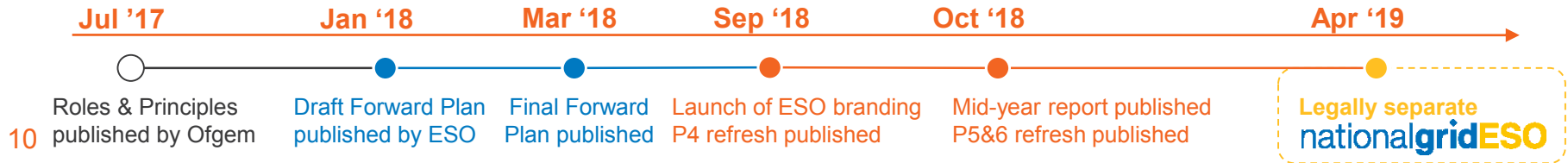
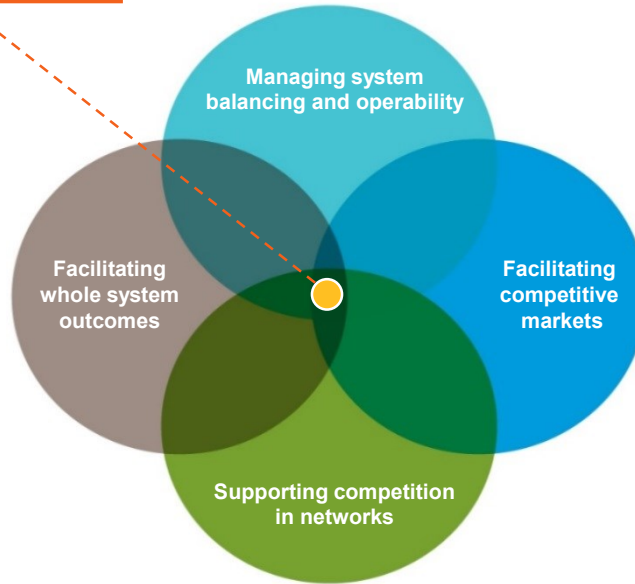
Duncan Burt

*Director of SO Operations*



# Incentives for the ESO have evolved

The current scheme has consumer interest at its core



# We made significant progress in the first six months

Considerable progress against our plan: a **strong baseline** performance and **many areas exceeding baseline** to deliver improved processes, greater transparency, and new products and services to create real consumer value.

Applying an innovative approach to create value for customers and consumers



Innovative approach to progress balancing



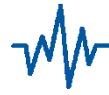
Platform for Ancillary Services



Wider access to the Balancing Mechanism



Auction trial



Inertia monitoring



Voltage management



Network Options Assessment

Four performance highlights



Deep engagement



Process improvement



Thought leadership



Consumer focus

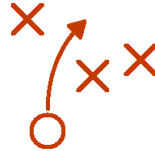
# We will apply our lessons learned to the next six months

The first six months were a steep learning curve and we continue to embed the scheme within the ESO

Clearer articulation of what we want to achieve



How are we going to do it



And how it ultimately creates value for consumers



## Highlights for the next 6 months



Balancing and operability

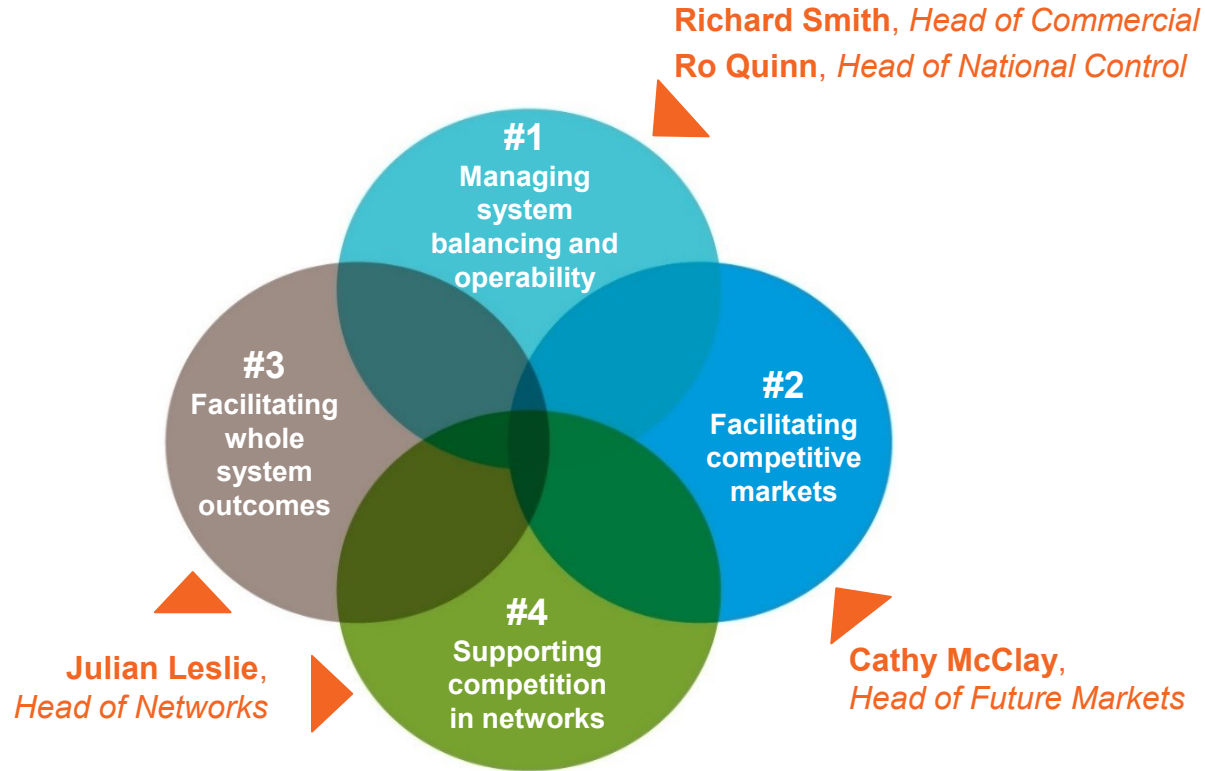


Transparency



Thought leadership

# Principle owners will reflect on progress in more detail



# Performance per principle



# Principle 1

Richard Smith



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

# Creating efficient markets through transparency

We create efficient markets through transparency, confidence in markets and liquidity

 Commitment to **11** deliverables in Forward Plan      **8** deliverables added      **10** completed in first six months      **9** on track for end of year

Your feedback led to our principle refresh and clearer articulation of our activities in a **new framework**

 **3 barriers to transparency**

 **Across 3 decision-making horizons**

Inappropriate range of information



Inappropriate frequency & accuracy



Multiple channels



Long term: Investment



Medium term: Operations planning



Short term: Price & availability







## Principle 2

Roisin Quinn



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

# Maintaining our focus on efficiency and security



We committed to **10** deliverables\*

**2** completed in first six months\*\*

**7** on track

1.

## Optimised balancing costs

Apr May Jun Jul Aug Sep

Savings of **£30m+** from resolving Vector shift risk alone



Asset disruption



New generation mix



Long term planning

2.

## Increased transparency in IT delivery



Electricity Balancing System (EBS)

Scheduling



Dispatch



Ancillary Services Dispatch Platform



Wider engagement through the IS Change Forum

180+

3.

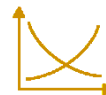
## Drove long term operat. transparency

2018



→ 2030+

Future of the ENCC



Balancing strategy



Licence condition C16 update



Operability report

18

\*14 in Forward Plan, 6 moved to P1, 2 added

\*\* 2 deliverables were merged into 1

# Coffee break



**Please be seated by 10:50**





# Principle 3

Cathy McClay



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

# Creating competitive markets for future system needs

We create consumer benefit by developing transparent liquid markets for balancing and ancillary services



Commitment to **14** deliverables in Forward Plan, **4** moved to other principles

**20** deliverables added

**17** completed in first six months

**13** on track



Reducing barriers to entry in balancing and ancillary markets

**500**

**£30m**

**<7days**

**1+1**

Auction trial

Roadmaps

Early DNO engagement

Speed of delivery



Power Responsive



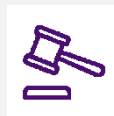
Firm Frequency Response



Platform for Ancillary Services



Wider access to the BM





# Principle 4

Cathy McClay



**Promote competition in  
the wholesale and  
capacity markets**

# Providing clear price signals for efficient decision making

We create consumer benefit by reducing barriers to entry in wholesale and capacity markets



Commitment to **12**  
deliverables in Forward Plan

**13** deliverables added  
during principle refresh

All in progress,  
on track



Facilitating the evolution of markets through  
collaboration and thought leadership



Your feedback is helping us improve

£4b

100/month

18%

29/3/19

Accuracy of  
forecast

Code  
prioritisation

New ways of  
engaging

Charging  
Futures



Transparent  
charges

Customer  
journey

Code  
governance

Brexit





# Principle 5

Julian Leslie



**Coordinate across system boundaries to deliver efficient network planning and development**



# Enabling long term investment and development

We deliver consumer benefit by finding additional capacity without new asset build solutions



Commitment to **10**  
deliverables in Forward Plan

**4** moved to P7

**1** removed during  
review

**1** completed in  
first six months

**3** on track for end of  
year

**1** potentially delayed



**365/24/7** tools and processes for network  
assessment



Finding new ways to release capacity through  
Regional Development Programmes (RDPs)



Standard  
templates



Collaboration  
with DNOs



Effective use of  
data



Managing  
off-peak



RDPs underway



New ways of  
working



Collaboration in  
modelling



# Principle 6

Julian Leslie



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

# Delivering optimal use of resources across the system

We deliver consumer benefit by operating a safe and secure network and optimising our day-to-day activities



Commitment to **7** deliverables in Forward Plan

**4** deliverables added during refresh

All **11** ongoing



Appendix G trial

£15k

1 week



Thinking differently about connections

£250k



Whole system outcomes



Visibility of future challenges



Process changes



Connection applications



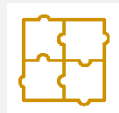
New technology



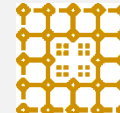
Solutions to new issues



Liquidity



Whole system strategy



ENA Open Networks

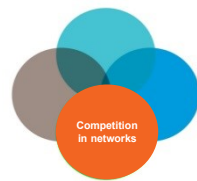


TOGA



# Principle 7

Julian Leslie



**Facilitate timely, efficient  
and competitive network  
investments**

# Driving innovation and identifying long term system needs

We deliver consumer benefit by facilitating competition in networks



We committed to **10** deliverables in 2018/2019

**4** added from P5

**5** completed

**8** on track

**1** potentially delayed



**Network Options Assessment (NOA)**



**New forms of competition**



**Future investment**



**Interconnector methodology incorporated**



**Interconnector modelling improvements**



**Connections competition assessment**



**Network Development Roadmap**



**Trialling DNO solutions**



**RFI to incorporate commercial solutions**



**Managing regional high voltage**



**Year round assessment of needs**



**£3.2bn network investment**

# Questions and Answers

**Fintan Slye,**  
*Head of UK System Operator*

**Duncan Burt,**  
*Head of Operations*

**Kayte O'Neill,**  
*Head of Strategy and Regulation*

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

