

# Draft Forward Plan 2020-21

Executive Summary  
19 December 2019



# Executive Summary

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I am pleased to introduce our Forward Plan for 2020-21.

This document captures the extensive set of activities that we propose to deliver within the next financial year. Delivering against this plan will form a foundation for our outputs under RIIO-2, and shows how we will work towards our ESO mission to operate the electricity system of the future.

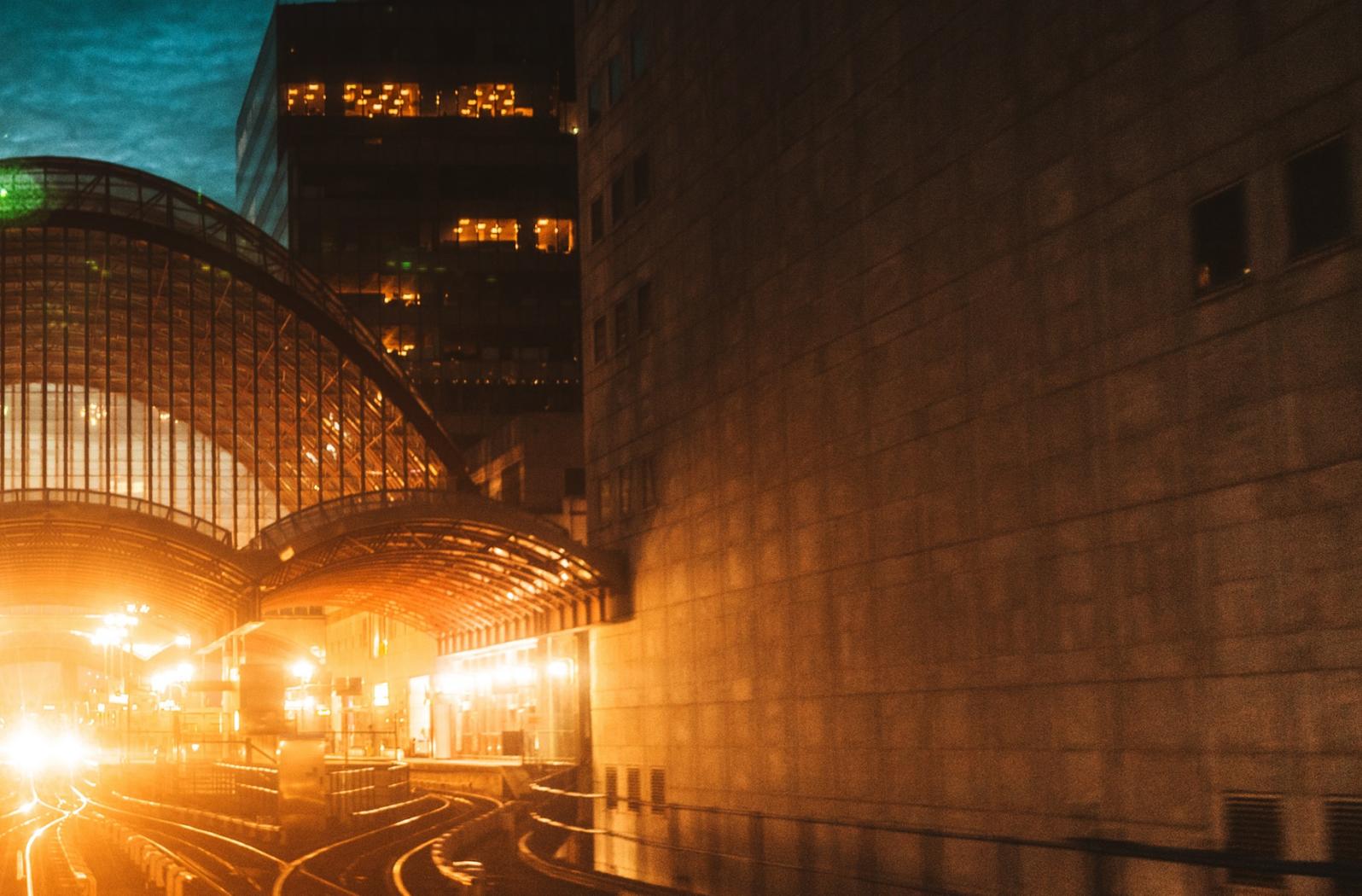
In March 2019, we set out a two-year Forward Plan, covering the 2019-21 period. We have made a strong start on delivering against the 2019-21 Forward Plan<sup>1</sup>, with 54 out of the 61 deliverables described in October's Mid Year Report being either completed or on track.

As we approach the end of the first year of this plan, we are taking the opportunity to revise our metrics and deliverables, to give the most accurate picture possible of what we will deliver during the 2020-21 financial year, and how we will measure our performance: this will form the 2020-21 Forward Plan. We will take into account our learnings during the year, as well as stakeholder views, and the feedback received from the panel at the Mid-Year stage.

Our proposed changes are explained in the detailed Role Chapters document which accompanies this executive summary.

Stakeholders are always keen to understand how our plans fit with our long term ambition, and therefore we have provided more detail in this document.

Delivering against this ambitious plan will prepare us to undertake the activities described in our RIIO-2 business plans<sup>2</sup>, as we work towards our 2030 ambitions.



## We are seeking stakeholder feedback on our plans

We publish this plan for discussion with stakeholders, and we welcome your views as to how we can focus on the activities that most benefit consumers.

We invite stakeholders to consider the following questions, across each role area:

1. In your view, will delivery of the ESO's Forward Plan bring a net benefit to consumers?
2. Do you think our proposed deliverables are the right ones?
3. Do you agree with the priority deliverables which we have identified on page 5? If not, which deliverables do you think should be defined as priority deliverables?
4. Is our proposed set of metrics fit for purpose for tracking our performance?

Please send your response to this consultation to [box.soincentives.electricity@nationalgrideso.com](mailto:box.soincentives.electricity@nationalgrideso.com) by 31 January 2020.

We will consider the feedback we have received from stakeholders, and publish a final Forward Plan in March 2020.

## Forward Plan Consultation Event

On 23 January, we will hold a workshop in London where stakeholders can review and challenge our draft Forward Plan. This will consist of short presentations from subject matter experts, with opportunity to ask questions and provide feedback.

Please register for the event [here](#).

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

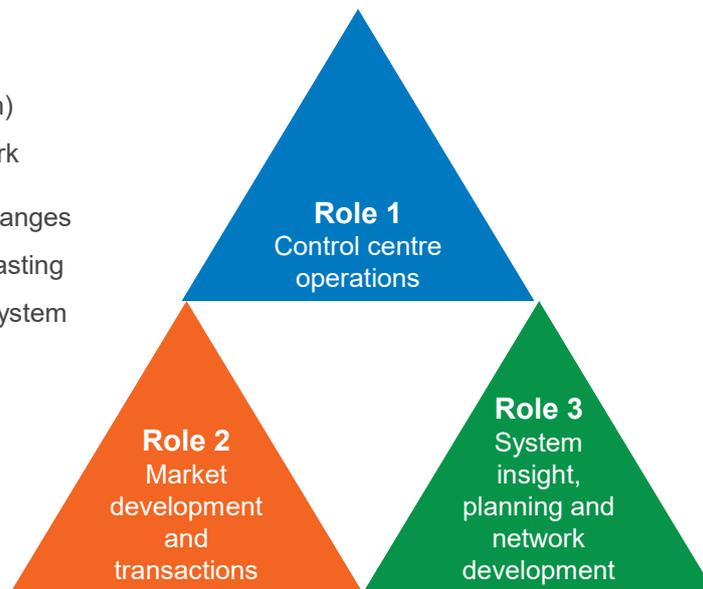
# Roles and deliverables

Our 2020-21 Forward Plan sets out the high-level deliverables according to Ofgem’s revised ESO role structure shown in the diagram below, which will also be used for RIIO-2. As a result of this new structure, a small number of deliverables and metrics move between role areas, we explain within the detailed role chapters where this is the case.

We articulate in the detailed role chapters how each high-level deliverable contributes to consumer benefit. As part of our reporting we will provide consumer benefit case studies, and where possible we will give a numerical representation of how we have contributed to deliver current and future consumer benefits in 2020-21.

## Role 1 activities

- Operating the system (monitoring and dispatch)
- Coordinating with network operators on operational decisions and outage changes
- Short term energy forecasting
- Managing and sharing system data and information
- Restoration and emergency response



## Role 3 activities

- Long term forecasting, energy scenarios and identification of network needs
- Network Options Assessment
- Delivering competitive system solutions and early network competition
- Managing connections and generator access to the network
- Whole system process development

## Role 2 activities

- Balancing and ancillary service market design
- Service procurement and settlement
- Revenue collection
- Policy advice and delivery of market framework changes
- Code administrator
- EMR Delivery Body

# Forward Plan 2020-21 priorities

For each role, we have identified a small number of priority deliverables. Many of these deliverables are ongoing activities, but they are those which we believe will add the most value for consumers.

In considering which activities to prioritise, we have weighed up the short term and long term consumer benefits of each deliverable, and how we think our work will help meet your needs. A large proportion of what we achieve will be through delivering stakeholder-led change, where we will apply our expertise to deliver benefits across the industry whilst being transparent about our decision-making.

Much of the value of what we will deliver comes through our customers and stakeholders; therefore, we would like to hear from our stakeholders whether these are the right areas of focus for the Forward Plan 2020-21.

## Role 1 Control Centre Operations

### Priorities

- Minimise balancing costs, contributing to lower consumer bills than would otherwise be the case
- Improve forecasting accuracy (demand and wind), giving more confidence in operational decisions and providing improved information to our stakeholders
- Give more clarity of operational decision making, facilitating a more efficient market
- Improve dispatch facility to handle a large number of small Balancing Mechanism Units, increasing wholesale competition by allowing smaller players to participate

## Role 2 Market development and transactions

### Priorities

- Product Roadmaps for Response and Reserve implementation, giving stakeholders visibility of how products will develop, and reducing our dependency on conventional generation to provide balancing services
- Product Roadmap for reactive implementation, setting out how markets will evolve in the future, increasing competition which should lead to lower bills
- Improving Balancing Mechanism access for Virtual Lead Parties, lowering barriers to entry for providers in the Balancing Mechanism, diversifying the market and increasing competition
- Facilitating Code Change, facilitating the market reforms necessary to transition to zero-carbon operation

## Role 3 System insight, planning and network development

### Priorities

- Progress Pathfinder projects, actively engaging with stakeholders to find new commercial solutions as alternatives to transmission build
- Produce Early Competition plan, allowing alternative options to be considered and the most economic one selected, whilst maximising the opportunity for innovation
- Enhance Network Options Assessment process, providing more complete information to stakeholders, to increase the quality of options submitted, optimising between balancing and network costs and reducing the requirement for transmission build
- Progress Loss of Mains Protection programme, reducing the long-term costs of system operation

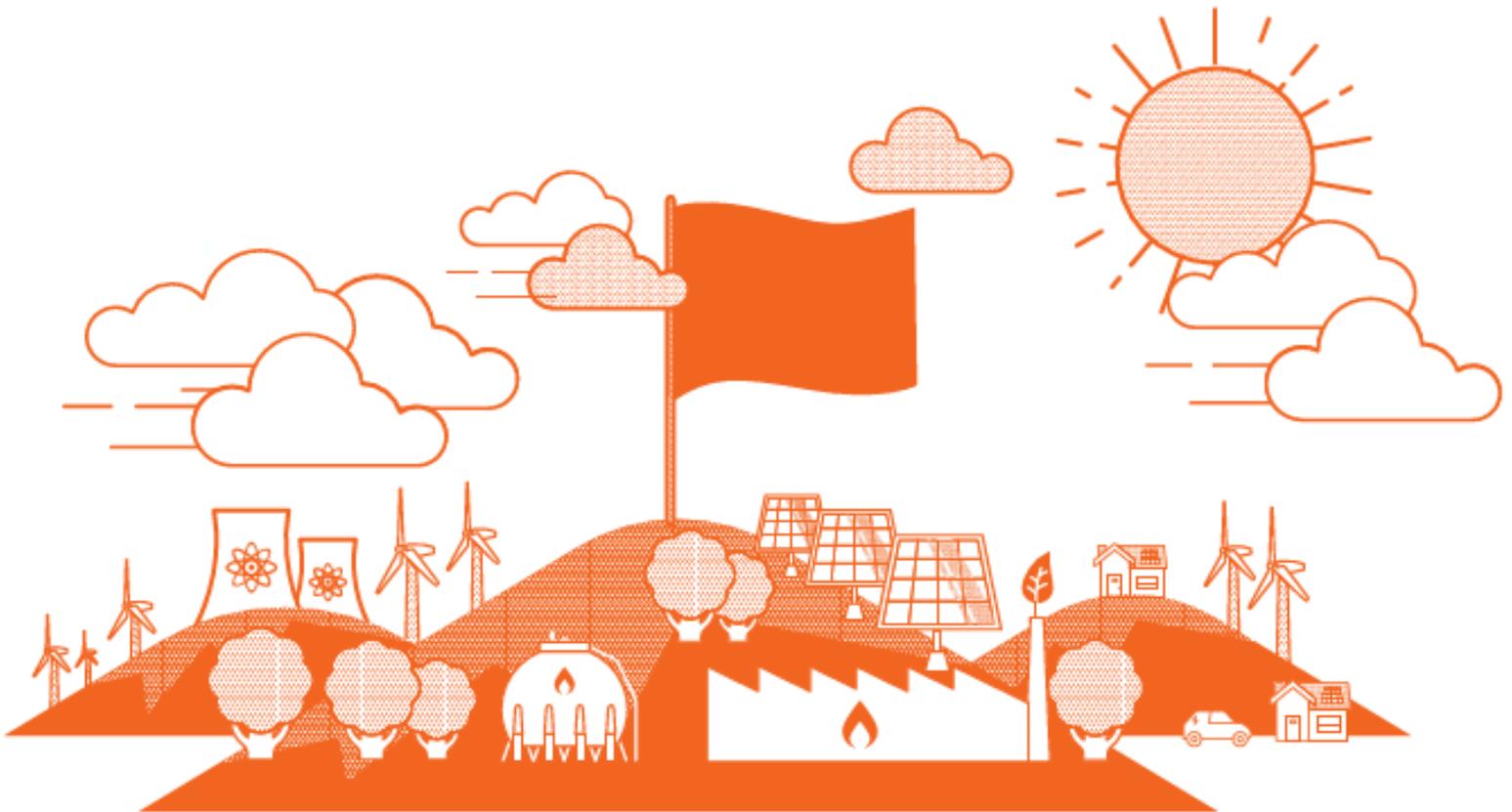
# Our ESO Mission

Our Mission is to enable the transformation to a sustainable energy system and ensure the delivery of reliable, affordable energy for all consumers.

## Success in 2025 looks like:

- An electricity system that can operate carbon free
- A whole system strategy that supports net zero by 2050
- Competition everywhere
- The ESO is a trusted partner

In line with this vision, we are updating our 2019-21 Forward Plan, revising our deliverables and metrics to support our journey towards these measures of success.



The ESO sits at the heart of the energy landscape, which is changing at an ever-increasing pace. Conventional generation such as coal and nuclear is being replaced by small-scale renewables, storage and demand-side participation.

This is making the system more challenging to operate, and the ESO is rising to this challenge by having of a clear vision of how we and the industry must change. We will facilitate the transition to a zero-carbon power system in line with the UK's recent commitment to net zero emission by 2050. We will also ensure the delivery of reliable, affordable energy for all consumers.

We have previously set out four ambitions which define success in 2025; here we give a few examples of key deliverables for 2020-21 which will help us to achieve these ambitions.



### **An electricity system that can operate carbon free**

- Stability Pathfinder- assess a range of commercial and network solutions to meet system stability needs
- Implement tool to measure system inertia in real time
- Strategic forecasting solution for wind and demand forecasts
- More renewables participating in balancing services



### **A whole system strategy that supports net zero by 2050**

- Publish FES steps to Net Zero thought pieces
- Support BEIS and Ofgem in developing a policy and regulatory framework to achieve Net Zero
- Develop a fuller understanding of how we would operate the transmission networks under different Clean Heat pathways
- Insights documents explore path to Net Zero



### **Competition everywhere**

- Configuring our balancing services to ensure they are deliverable by the widest range of providers, including Distributed Energy Resources
- Product Roadmaps for new balancing services products
- Transforming industry frameworks- lead Balancing Services Task Force and support Ofgem's Targeted Charging Review
- Developing the Network Options Assessment



### **The ESO is a trusted partner**

- Stakeholder engagement including Operational Forum, ENCC visit days and other events.
- Increasing transparency of ENCC decision making by publishing more operational data
- Improving the service we provide as code administrator
- Focus on improving query management- we have set targets for our response times and are actively monitoring our progress

# 2020/21 and beyond

We show here how our 2020-21 priority deliverables will contribute to our long-term ambitions.

**Role 1: Control Centre Operations**

**Role 2: Market development and transactions**

**Role 3: System insight, planning and network development**

	2020/21	2021/22	2022/23			
<b>Role 1</b>	<b>Minimise balancing costs</b>	Engage with Design Authority on requirements and design for enhanced balancing tool	Investigate procurement options	Finalise project scope	Agile build of modular design	
	<b>Improve forecasting accuracy</b>	Continue enhancement of inertia monitoring capabilities	Develop and implement tools as required			
	<b>More clarity of operational decision making</b>	Start data platform foundation work	Data platform requirements and design work	Deliver data platform management system	Deliver data platform foundation	Integrate data platform with digital engagement platform and single markets platform
	<b>Improve dispatch facility to include smaller BMUs</b>	Day ahead response market integrated with single markets platform	Reserve products integrated with single markets platform			
<b>Role 2</b>	<b>Product roadmaps for response and reserve implementation</b>	Trial day ahead frequency response market	Design and implement reformed reserve products		Single day-ahead response and reserve market	
	<b>Product roadmap for reactive implementation</b>	Communicate next steps on reactive procurement	Single integrated platform for ESO markets			
	<b>Wider access to Balancing Mechanism</b>	Day-ahead response market integrated with single markets platform	Reserve products integrated with single markets platform	Single integrated platform for ESO markets	Enhancing provider support with interactive guidance for each balancing service	Completing the replacement of our ancillary services settlement system
	<b>Facilitating code change</b>	Dedicated ESO legal support for code changes	Engage and consult industry, in particular distribution stakeholders, on whole system Grid Code and digitalise capability	Fixed BSUsS		Transform the process of amending our codes
<b>Role 3</b>	<b>Pathfinder projects</b>	New areas of need identified that will be tendered	Tenders prepared and run on 2021/22 work			
	<b>Early competition</b>	Adapt processes to accommodate any new funding arrangements	Work with industry to implement any other framework changes that may be needed		Support Ofgem to consider ED2 funding implications	
	<b>Network Options Assessment</b>	Full stability assessment tool development			Extend NOA approach to end of life asset replacement decisions and connections wider works	
	<b>Loss of mains protection</b>	Accelerated Loss of Mains Protection changes		Stability market outcome decision	Loss of Mains Protection works must be completed	

2023/24

2024/25

2025/26

Deliver new enhanced balancing tool  
Integrate interconnector tools and ASDP

Integrate tools created with enhanced balancing tool

Integrate data platform with enhanced balancing tool

Further iterations based on priority needs

Implement tools created with new network control tool

Integrate data platform with new network control tool

Further iterations based on priority needs

Refresh contracts for next generation inertia projects

Continued data platform expansion

Start balancing and wholesale market review

Implement change to codes required to create whole system Grid Code

Digitalised whole system grid code

Improved tender approaches that enable more participants to enter the market

Connections Wider Works proposals implemented in NOA



An electricity system that can operate carbon free



A whole system strategy that supports net zero by 2050



Competition everywhere



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