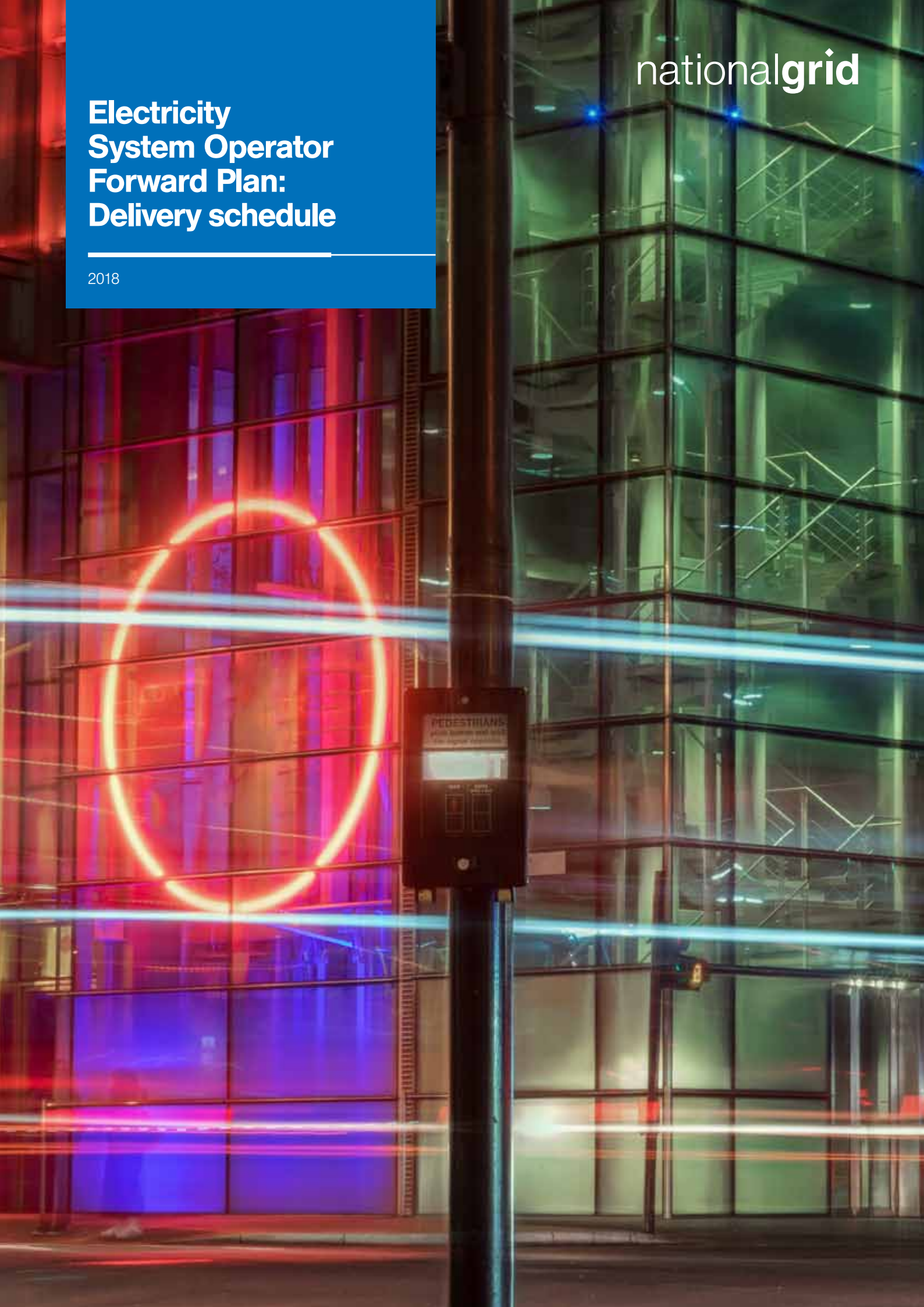
nationalgrid

Electricity System Operator Forward Plan: Delivery schedule

2018

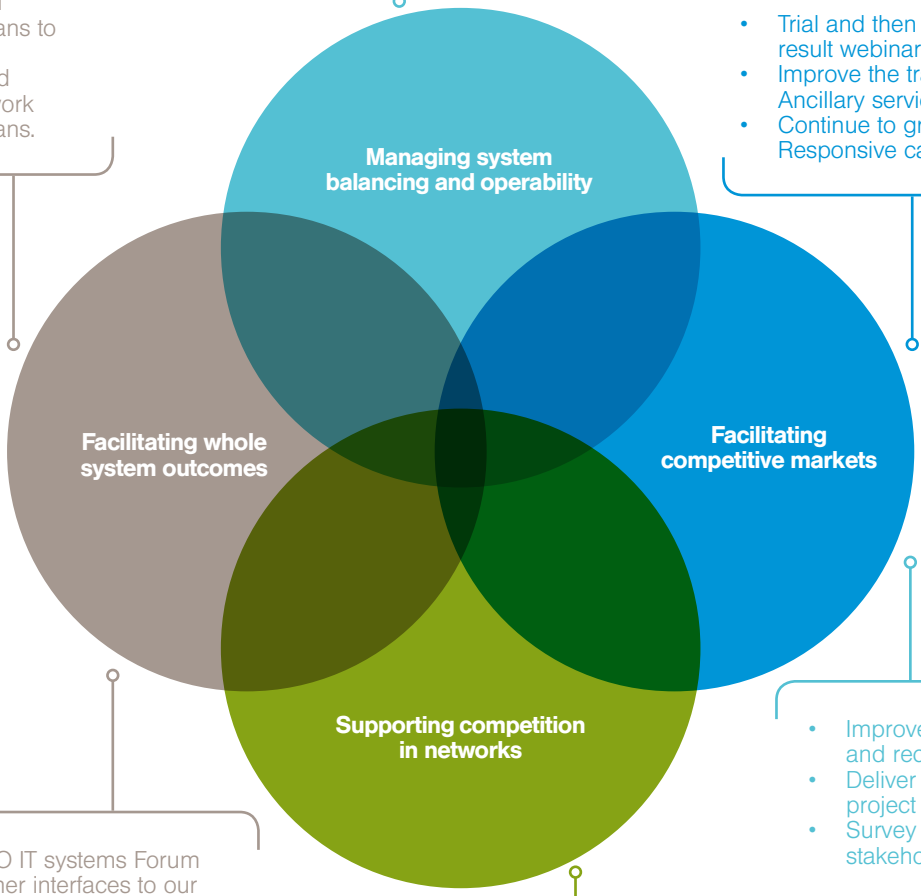


Our plan at a glance – our four roles and key actions

Here we capture our plan at a glance. Further detail can be found in the following pages and full detail can be found in our delivery schedule and technical annexe at the back of this document.

- Publish our short and mid-term analysis of system margins and operability.
- Survey our customers and stakeholders for feedback on all relevant publications.
- Improve the quality of our forecasts.
- Upgrade our IT systems.
- Monthly reporting and review of balancing costs.

- Roll out regional development plans to deliver joint transmission and distribution network development plans.



- Trial and then implement tender result webinars.
- Improve the transparency of Ancillary service documentation.
- Continue to grow the Power Responsive campaign.

- Improve TNUoS forecast and reconciliation.
- Deliver Charging Futures project plan for 2018/19.
- Survey customers and stakeholders on satisfaction.

- Launch new ESO IT systems Forum covering customer interfaces to our main systems and data.
- Develop through consultation and then enact an expanded Network Options Assessment process to cover transmission, distribution and smart control options to deliver network capability for peak demand, peak renewables and minimum demand.

- Improve our Future Energy Scenarios, Ten Year statement and Network options Assessment engagement process and publication.
- Consult on the expansion of our Network Options Assessment away from the demand peak, to cover high renewables output and minimum demand conditions.
- Develop options analysis processes to include significant smart control solutions to delay or offset network investment needs.

40 actions delivering improvements across seven principles.
See delivery schedule and technical annexe for full detail.

ESO Forward Plan: Delivery schedule

Meet the team:

- **Fintan Slye:** Director of National Grid System Operator
- **Duncan Burt:** Director of Operations
- **Roisin Quinn:** Head of Strategy
- **Simon Johnston:** Head of Business Change
- **Mike Breslin:** Head of Operate the System Electricity
- **Cathy McClay:** Head of Commercial Operations Electricity
- **Julian Leslie:** Head of Network Capability Electricity
- **Richard Smith:** Head of Market Change Electricity
- **Charlotte Ramsay:** Programme Director, Future of the SO

This schedule sets out the activities that our Forward Plan will deliver in 2018/19 to meet our licence obligations, and to deliver value over and above our core role in line with the seven principles that Ofgem has defined for the ESO.

Each section sets out:

- The member of the leadership team accountable for delivery against each principle.
- A summary of key activities we deliver today, to meet this principle.
- Our ambition to improve on these activities to drive additional value for consumers.
- The benefits that we think this will deliver, the metrics we will use and the outputs that you will see delivered through the course of 2018/19.

Further detail on the performance metrics, how we have set the baseline and target performance, and the expected consumer benefits that each metric is driving is included in a separate technical annexe.

Running through all our ambitions and plans for next year are two major change programmes: legal separation and the BASICS, data handling and compliance initiative.

By April 2019 we will have delivered the legally separate ESO. Throughout this coming period, elements of the more separate ESO will begin to be visible. We will deliver this major organisational change and culture shift in parallel with achieving our ambitions as set out in the Forward Plan.

We recognise the important role that our actions play in supporting confidence in the energy markets. We initiated our BASICS programme over 12 months ago to ensure that we are building and maintaining a culture of efficient effective and compliance data handling.

Both these initiatives contribute to creating consumer value across all seven principles. Further detail on the progress that will be made on these programmes is included in the final section of this schedule.

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

Team member: Cathy McClay, Ro Quinn

Key activities

In order to meet our objective of minimising the actions we take as System Operator, market participants are encouraged to balance their positions. We support market participants to achieve this through the provision of information which helps them forecast system needs and likely market outcomes. This is currently through:

- Publication of our requirements for balancing services together with the outcomes of the tenders for these services.
- Publication of a forecast BSUoS outturn per month.
- Publication of wind generation and demand forecasts.
- Reporting of trades to the market within one hour of execution.
- Publication of forecasts of the carbon intensity of the electricity system.
- Running events and maintaining multiple communications channels to share this information and intelligence with market participants and stakeholders.
- Using our technical expertise, modelling and analytical capability to stimulate debate and support long-term decision making across industry, Government and the Regulator through our publications such as Future Energy Scenarios, Market Outlooks, insight publications and the Electricity Capacity Report.

Improvements

New and established market participants are dealing with an increasingly complex energy system and facing unclear trends for its future development. The volume of information is increasing, balancing market dynamics are changing. The ESO can support market participants better by increasing transparency on the actions we take and improving provision of timely market information to keep building the capability of market participants to self-balance. To do this we will:

- Provide greater transparency over ancillary and balancing services tender results via improved reporting and new, more accessible communication channels.
- Provide greater market insight through publication of new BSUoS scenarios and Day Ahead forecasts.
- Provide more data on system outcomes, delivered in an accessible format, to assist market participants in understanding the system and market dynamics.
- Review our demand forecasting models and approaches, to ensure these tools can continue to deliver accurate, reliable forecasts for market participants and the control room.
- Create a new forum to provide regular progress updates on our major IT system change programmes, helping market participants plan their own system upgrades and providing visibility of major change initiatives in the ESO's IT systems and related processes.

As the energy industry is transforming, we need to keep our analysis and publications relevant through continuing to share our unique perspective, integrate the expertise of industry and respond to feedback. We will harness our technical and analytical capability to use state of the art models and tools. We will also provide an ongoing opportunity for stakeholder engagement and contribution to our analysis and recommendations, as well as transparency on our assumptions and methods. To do this we will:

- Continue to deliver the high standards of stakeholder engagement in our Future Energy Scenarios, delivering outputs through new channels in response to stakeholder feedback.
- Continue to evolve the Summer and Winter Outlooks which will provide clearer information on expected system and market conditions.
- Provide additional information to support the Electricity Capacity report.
- Update and evolve our energy system analysis methodology in response to input from BEIS's Panel of Technical Experts.

Benefits and outputs

We will be able to demonstrate these changes through the following metrics:

- Forecasting accuracy – improvement in the accuracy of day ahead demand and wind forecasts.
- BSUoS forecast provision – creation of a new day-ahead half-hourly BSUoS forecast report.
- Commercial assessment transparency – publication of tender results and assessments for Fast Reserve, Frequency Response and STOR.
- Trades data transparency – publication of information relating to trades undertaken by the ESO in balancing and operating the system.
- Information provision innovation – new publication of information on carbon emissions from GB generation.
- Customer and stakeholder satisfaction – collection of metrics from customer and stakeholder feedback surveys.

In addition, our progress can be measured by:

- Delivery of our schedule of webinars and events relating to the Ancillary and Balancing Services Tenders.
- Successful hosting of our “Ops Forum” events and expansion of our channels of information dissemination to support wider engagement of market participants and service providers.
- Publication of a new BSUoS scenarios and day-ahead BSUoS forecast.
- Publication of daily and monthly summaries of balancing costs, volumes and a high-level summary of system conditions via new, more accessible channels.
- Mobilisation of the Demand Forecast Modelling review.
- Kick-off and delivery of the SO IT Forum with terms of reference based on feedback from customers and stakeholders.
- Publication of the Future Energy Scenarios, Summer and Winter Outlooks, Insight and thought pieces and the Electricity Capacity Report.

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

Team members: Cathy McClay, Mike Breslin, Ro Quinn

Key activities

We operate the system in real time, and run all the systems and processes to ensure that the Electricity National Control Centre (ENCC) has all the tools it needs to deliver secure, economic and efficient dispatch of the system. This includes:

- Assessing the notified market information for generation and continuously optimising the generation schedules to achieve overall system and demand balance.
- Running integrated operational, commercial and network planning teams to ensure that we optimise the use of the system today. This involves analysis of the system capability requiring network re-configuration and generation adjustment to provide the secure delivery of electricity to end customers.
- Assessing the impact of near real-time generation and demand changes, and adjusting our reserve holdings to compensate for forecast errors.
- Instructing Ancillary Services to ensure that we comply with our quality of supply obligations with respect to frequency and voltage control.
- Developing an integrated view and approach to identify the challenges that the Control Centre will face, and the solutions that we will use in the future.
- Publication of the SO Innovation Strategy to identify our priorities for innovation through the year, signalling our response to the longer-term technical challenges in operating the system.

Improvements

Decentralisation and decarbonisation of the energy system are making it more complex to operate the system, and changing the tools that we have available to ensure system balance. We continue to improve the transparency of our decision-making strategies, balancing requirements and operability challenges. We also look ahead, working with market participants and industry, to ensure that we have tools to deliver an economic, efficient and operable system both today, and in the future. To do this we will:

- Improve visibility of the decision framework (our Procurement Guidelines) that underpins how we procure efficient levels of Ancillary and Balancing Services today, and how we expect that to evolve in the future.
- Continue to improve the capabilities of our IT systems. and deliver ongoing IT upgrades that are needed to ensure we can accommodate the changing dynamics of the system, characterised by larger numbers of new market participants and new technologies.
- Increase our demand-forecasting accuracy to maximise the efficiency of our reserve-holding strategy.
- Refresh our models and system analysis tools so they can accurately model the new challenges and dynamics of a decentralised and decarbonised system.
- Ensure we will have the tools needed to balance the system into the future by sharing our insights on future operability challenges. Engaging with stakeholders to seek new technical and commercial solutions to these challenges as well as inform wider industry about future system challenges.
- Drive innovation in System Operation through sharing our innovation priorities and making it easier to engage with the ESO on collaborative projects.
- Review the process and systems that underpin how we run the Electricity Control Centre to ensure that they are fit for purpose, and recommend changes if needed.

Benefits and outputs

We will be able to demonstrate these changes through the following metrics:

- Balancing Cost Management – cost target for the ESO to minimise balancing spend (excluding black start).
- Demand Forecasting Accuracy.

In addition, our progress can be measured by:

- Publication of updated guidelines on Procurement of Ancillary and Balancing Services, and an approach for ongoing review.
- Deliver new systems capability within the ENCC, specifically, PAS (Platform for Ancillary Services) and progress an update of the Dispatch module for our Energy Balancing processes.
- Embedding of enhanced inertia modelling tools and new inertia measurement capability.
- Publication of Future Operability Challenges document and launch event.
- Consultation on innovation priorities and publication of the 2019/20 ESO Innovation Strategy.
- Publication of Future of ENCC Study, recommendations and scope of future work.

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

Team member: Cathy McClay

Key activities

Today, we devise and run the processes to procure system balancing and ancillary services:

- We employ a schedule of open tenders to purchase a variety of products and services.
- We settle and report on the outturn of the balancing mechanism and ancillary services contracts.
- We support new and existing providers to help them participate in the ancillary and balancing services markets and tenders.
- We run the Power Responsive campaign to raise awareness for demand-side flexibility opportunities across the whole system.

Improvements

In the future we will need to access services from an even wider range of providers in order to balance the system, and we therefore need to remove barriers to new types of service provider and help them enter the markets for balancing services. We will be implementing a suite of changes outlined in our Product Roadmap which will make the balancing and ancillary services markets simpler and more accessible to a broader range of market participants. To do this we will:

- Standardise the FFR product structure and simplifying the contract.
- Publish a new FFR testing and compliance policy for market participants, to streamline and make the process more accessible.
- Develop an integrated approach to buying standard and faster-acting frequency response.
- Develop of a week ahead auction trial for response.
- Deliver new, standardised products for reserve together with simplified contracts.
- Implementation of TERRE.
- Deliver a new, highly scalable and flexible dispatch solution for reserve.
- Publish and consult industry on exclusivity clauses to improve the ability to stack products.
- Publish thought pieces on the development of markets for voltage, constraints and black start.

Benefits and outputs

We will be able to demonstrate these changes through the following metrics:

- Reform of balancing services markets – delivery of rationalisation and simplification activities to plan.
- New provider on-boarding – satisfaction survey to assess provider on-boarding experience.
- Market diversity – measurement of the increase in the number of tenders and bids in each market.

In addition, our progress can be measured by:

- Delivery of new products, contracts and procurement capabilities for Response, Reserve and STOR.
- Publication of information on real-time trading activity.
- Publication of additional out-turn information: balancing costs, volumes, system conditions, balancing services summary, demand side balancing report.

Principle 4: Promote competition in the wholesale and capacity markets.

Team members: Richard Smith, Cathy McClay

Key activities

We are the code administrator for a number of codes and processes that govern the electricity markets.

- We ensure that the rules of participation and the commercial arrangements to use the system are clear, fair and promote competition, specifically for the Connection and Use of System Code (CUSC), Grid Code and the SO-TO Code (STC) and, informally, for the System Quality and Security of Supply Standard (SQSS).
- We are party to several others such as the Balancing and Settlement Code (BSC) and the Distribution Connection and Use of System Agreement (DCUSA).
- We are the administrator for the Balancing Services Use of System (BSUoS) and Transmission Services Use of System Charges (TNUoS).
- We collect TNUoS charges on behalf of the Transmission Owner and offshore transmission owner companies, and distribute these funds.
- We are the EMR delivery body and we administer the running of the capacity mechanism auctions.
- We are a part of the European body for Transmission System Operators, ENTSOE, and work with our counterparts in Europe to represent the interests of UK consumers in the development of the codes and frameworks that support the Internal Energy Market.

Improvements

Implementation of the European Network Codes, Brexit and Legal Separation of the ESO will bring a significant volume of code change to our industry. This is against a backdrop of a changing industry model, bringing whole system ways of working that require more strategic and structural reforms. We will use our code and charging administrator roles to help industry process the immediate changes, and set the foundations for more fundamental transformation. We will:

- Deliver changes that help our customers manage their profitability, such as continuous improvement in our TNUoS billing reconciliation, forecast and final tariff setting processes.
- Deliver targeted interventions that enhance our customers' experience of our charging processes on the 'hot spots' they have told us matter to them.
- Continue through our role as Lead Secretariat of Charging Futures to engage with participants on and deliver future development in charging.
- Map customers' experience of our code administration processes and identify the changes that drive continuous improvements, address hotspots and support strategic reform.

Benefits and outputs

We will be able to demonstrate these changes through the following metrics:

- BSUoS Billing – time to respond to customer BSUoS queries.
- Charging Futures – stakeholder satisfaction survey.
- Code administrator stakeholder satisfaction – Ofgem CACoP survey of performance across CUSC, Grid Code and ST.

In addition, our progress can be measured by:

- Improved transparency and publication of charging data.
- Delivery of new, combined TNUoS and BSUoS customer seminars.
- Implementation of a new charging customer on-boarding process.
- Publication of an agreed code administrator strategic improvement action plan.
- Customer satisfactions survey on TNUoS charging processes.

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

Team members: Julian Leslie, Ro Quinn

Key activities

We facilitate efficient transmission network investment planning and development through:

- Facilitating the connection of new users to the transmission system and managing connection contracts.
- Working with the DNOs to facilitate connection of new users to the distribution networks.
- Collating, managing and modelling transmission system data.
- Identifying and publishing future transmission system needs.
- Supporting efficient development and investment in the transmission network through the Electricity Ten Year Statement (ETYS) and the Network Options Assessment (NOA).

Improvements

We want to improve our customers' experience of getting connected while also taking a leading role in supporting the industry transition towards whole system investment planning and development approaches. To do this we will:

- Deliver a more efficient connections process, better connections information, more consistent processes, better customer service.
- Upgrade and develop our network models to better reflect the whole system:
    - Improving data handling and accuracy.
    - Incorporate the impact of Distributed Energy Resources (DERs).
    - Support analysis of system need beyond winter peak.
- Develop our analysis to support evaluation of non-network solutions to meet transmission system needs.
- Develop new ways of working with DNOs and other solution providers to support development of the NOA methodology and analysis.
- Collaborate with DNOs in Regional Development Programmes to prioritise leadership attention, resource and innovation in whole system thinking in network investment and planning, in order to facilitate optimised connection to and use of distribution and transmission networks.
- Support the industry transformation to whole system thinking through active participation in the ENA Open Networks Project, bringing both thought leadership in system operation and experiences from the NOA case studies into this forum.

Benefits and outputs

We will demonstrate these changes through the following metrics:

- Whole system optionality - The NOA process will identify and evaluate distribution-led investments and non-network solutions to support transmission system needs.
- Whole system, unlocking cross-boundary solutions - Our work with DNOs will support more efficient use of constrained network areas allowing more DER to connect to the network and provide services to the SO.

In addition, our progress can be measured by:

- Connection contract, signed first time - The experience of connecting to the transmission network will improve. We aim to get 100% of our connection contracts signed first time, minimising rework and making the connections process more efficient and easier to navigate.
- Implementation of a new processes to ensure a minimum one-month handover for all staff in customer-facing connection roles.
- Successful hosting of our annual customer connection seminar.
- Completion of the customer connections website upgrade.
- Publication of the NOA Roadmap consultation and the final Roadmap.
- Publication of the results of two NOA case studies and a plan to update the NOA methodology.
- Delivery of our investment and planning related outputs as part of the ENA Open Networks Project.

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

Team members: Julian Leslie, Cathy McClay, Mike Breslin

Key activities

We ensure efficient transmission system operation and optimal use of resources by:

- Plan and optimise outages of the transmission network to allow connections and asset maintenance.
- Six-monthly engagement with all DNOs to share the future seasonal challenges faced by the transmission system, and discuss approaches to coordinate and collaborate across networks to resolve these challenges.
- Developing and maintaining the Transmission Owner Generation Availability (TOGA) model.
- Modelling and analysing the transmission system to identify future operability challenges.
- Informing market participants and our stakeholders about future operability challenges for the transmission system through developing and publishing the System Operability Framework document.
- Innovating to find cost effective technical and commercial solutions to operability issues.

Improvements

We want to keep improving our customer's experience of getting access to the network, while also transforming ways of working with the DNOs to break down barriers to whole system thinking and action in system operations. Setting the foundations to optimise the use of existing energy resources wherever they are connected in the network, and open up new revenue streams to distributed energy resources, while giving network operators a wider range of resources and tools. To do this we will:

- Improve our network access planning processes to minimise within-day cancellation of established network access plans, saving money on cancelled asset maintenance and connection plans, and allowing our customers to access the network safely and on schedule.
- Kick off an upgrade of our TOGA system so that it is fit for purpose, and better able to support TOs and transmission network users in effective decision making and planning.
- Conclude and implement new commercial frameworks, contracts and technical solutions devised to support DER provision of transmission services in our two in-flight RDP trials (with UKPN and WPD), initiated in 2017/18.
- Collaborate with more DNOs in Regional Development Programmes to prioritise leadership attention, resource and innovation in whole system thinking in the system operation and optimisation of DER space.
- Play our part in the ENA Open Networks Project, bringing experiences and lessons learned from our Regional Development Programmes into the industry forum.

Benefits and outputs

We will demonstrate these changes through the following metrics:

- System access management – the number of within-day cancellations of system access plans will be reduced. On target is a 5% improvement of current performance. Limiting outages to <11 cancellations per 1000 outages.
- Connections agreement management - We will report on the timeliness of updating connection contracts. As we improve, this will minimise late notice action in the balancing mechanism to facilitate network access.
- Future GB electricity system security planning - Publication twice yearly of an Operability Report covering current state, review of prior performance and future plans to address identified needs. Stakeholder engagement on plans and in development of solutions.

In addition, our progress can be measured by:

- Scoping of the new TOGA system and issuing a procurement ITT for the new system.
- Implementation of new commercial contracts to allow DER to participate in provision of transmission services in our in-flight RDP areas.
- Implementation of innovative connections contracts in our in-flight RDP areas.
- Publication of the Regional Plan as we close out our two in-flight RDPs.
- Kick off two new RDPs with the publication of a bespoke work plan for each region.
- Integration of learning from our live innovation projects (Power Potential, Enhanced Frequency Control Capability (EFCC) and Project Phoenix) into our Future Operability work (see principle 2).
- Active engagement in the delivery of ENA Open Networks 2018 outputs including:
  - Leading the consultation process with stakeholders on future DSO commercial and technical arrangements.
  - Providing transmission input and system operator perspective into all work activities.

Principle 7: Facilitate timely, efficient and competitive network investments

Team member: Julian Leslie

Key activities

We facilitate efficient transmission network investment and planning, and support the identification of investments suitable for competition by:

- Identifying future transmission system needs under the FES scenarios.
- Publishing the future transmission boundary requirements in the Electricity Ten Year Statement (ETYS), informed by the Transmission Owners (TO).
- Delivering SO-led analysis to identify additional solutions across TO boundaries and alternatives to network investment.
- Modelling and analysis to identify the most economic and efficient solutions to meet future transmission system needs.
- Running the NOA committee review and publication of the NOA recommendations about efficient network investment to meet identified transmission system needs.
- Identifying projects from the NOA recommendations that meet the criteria for competition.

Improvements

We will continue to support the evolution of Ofgem's policy to develop competition in delivery of onshore transmission network by running the annual NOA process that provides visibility of new transmission network investment. To do this we will:

- Increase the scope of the NOA methodology (as described under Principle 5) to include distribution-led investments to transmission system needs, and non-network solutions. This enhanced capability will ensure that we are evaluating a full spectrum of options and identifying the most efficient solutions (whether transmission, distribution or non-network investments) in our recommendations.
- Improve and iterate our modelling capability, further embedding the interconnector modelling and our analysis of offshore networks as well as progressing probabilistic year-round assessment to understand how often the network boundaries are exceeded.
- Integrate changes in our models and methodology to include analysis of generator connections to the transmission network that are suitable for competition, in addition to the current identification of wider works projects (in expectation of the ECIT policy development to embed the potential for competition in delivery of generation connections).
- Design developments to the NOA in a way that should accommodate the introduction of competition in delivery of onshore transmission network.

Benefits and outputs

We will demonstrate these changes through the following metrics:

- **NOA consumer benefit** – Through the annual NOA publication, we will report calculated incremental benefit of alternate solutions to meeting transmission system need compared to asset-based solutions. This metric will drive the ESO to consider the variety of options available, minimising consumer spend on network reinforcement through use of alternative options to traditional asset build.
- **NOA engagement** – We will report on the breadth and quality of our stakeholder engagement on all aspects of the NOA process. Demonstrating the effectiveness of our efforts to increase awareness of and engagement with the NOA process from traditional and non-traditional parties.

In addition, our progress can be measured by:

- Publication of the NOA methodology.
- Publication of the 2019 NOA recommendations.
- Publication of the NOA Roadmap consultation and the final Roadmap (as described under Principle 5).
- Publication of the Electricity Ten Year Statement, which includes some of the methodology enhancements mentioned.
- Publication of the ENA Open Networks approach to whole system investment and operability options across transmission and distribution networks (linked to Principle 5).

Legal Separation of the Electricity System Operator and Transmission Owner

Team member: Charlotte Ramsay

The ESO has an important role in the transition to a more decentralised, low carbon electricity industry model. Throughout this Forward Plan, we show that the ESO is transforming itself, promoting more whole system thinking to enhance network and market access for all parties. Our customers and stakeholders need to be confident that the ESO is delivering against its new principles with neutrality. To provide this confidence, we are creating a new ESO business separate from the Electricity Transmission Owner (ETO).

Key activities

The ESO will be operating as a separate company with its own licence on 1 April 2019. Key achievements by this date will include:

- Separate governance arrangements - The ESO will have a separate Board of Directors dealing only with ESO business. The ESO Board will include three sufficiently independent directors (SIDs) from outside National Grid. One SID will chair an ESO Compliance Committee that will provide assurance that the ESO is carrying out its duties in line with compliance requirements.
- NGESO employees and physical separation - NGESO employees will be located in a physically separate office to the rest of National Grid. ESO managers and executives will be incentivised on ESO performance only.
- NGESO identity - National Grid will develop a distinct visual identity for the new National Grid ESO so customers and stakeholders can recognise when they are talking to the ESO or when they are talking to any other part of National Grid.
- Information ring-fencing - We will create a 'soft' separation of IT systems used by the ESO to make sure that the National Grid TO will have information only available to other TOs.

Benefits and outputs

We expect our success to be reflected in our proposed new performance metrics on customer and stakeholder satisfaction. We will monitor views on the success of work to achieve legal separation throughout this year, and include it as a specific question in our customer and stakeholder metric from 2019/20.

BASICS: Establishing a strong culture of compliance, data and risk management

Team member: Simon Johnston

Data plays a critical role in our operations, underpinning efficiency, productivity and robust decision making. We are building the right capabilities to manage our data better, to meet the needs of our customers and regulators.

We are 18 months into a 3.5 year programme to embed the NG Group Data Management Principles and Minimum Standards. The aim is to ensure confidence in data, based on improved data quality and controls. Data management is being strengthened as a core capability, enabling our data to be exploited as a key strategic asset, underpinning all of our key decisions and informing our future strategy.

The new principles and standards will provide greater clarity around what is expected – by us, our customers and our stakeholders – with a strong focus on what we need to do to keep us safe, secure and compliant.

Key activities

- Data asset ownership - All data connected to supported IT systems will be captured in a Data Management Library and mapped across the entire SO, with clear data ownership, and data stewardship accountabilities and responsibilities. All such data will be classified for business criticality and confidentiality so that we can prioritise the right controls for the right data.
- Data quality and governance - Data governance groups and communities of practice will drive improvements in data quality and controls through the use of KPIs designed to identify and close any gaps between current and target states and, crucially, maintain these high standards as an enduring culture.
- Data access, availability and security - All data owners will ensure the right data is accessible only to the right people at the right time, including publications to our stakeholders, customers and regulators.
- Capability Development - We are rolling out a bespoke Data Management Training curriculum. Awareness and capability development are critical to maintaining the high standards required and will be a key metric of success. To sustain progress, a data quality service is being launched to mentor and support data managers.

Benefits and outputs

By the first quarter of this year the ESO will have attained Data Management Maturity Level 3 in a 5 level maturity framework. Through an integrated approach including IT, architecture, risk and compliance management improvements, the programme plans to reach the target of Level 5 by April 2020, with an intermediate target of Level 4 by April 2019.

We have developed performance metrics monitoring progress towards the 41 minimum standards of the seven National Grid Data Management Principles. These will help us assess whether the right culture is established and how well it is maintained. Data owners and stewards whose performance drops below standards will be notified and non-adherence escalated.

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