Appendix Our commitments to 2026

This appendix contains the technical detail of our commitments to 2026, which are subject to consultation and finalisation later this year as part of our RIIO-2 Business Plan 3.

NESO
National Energy System Operator

Navigation

Navigating the document

Forward & back a page

Use the forward and back arrows on each page to move through the document

On desktop
you can use your keyboard arrow keys to change page

On tablet
you can swipe to change page

Please view in full screen mode to see all content

Contents

Links

Click on underlined purple text to navigate to external links

Contents

View our glossary for commonly used terms.

Clean Power

We will enable a zero-carbon electricity system by adopting a whole system approach, encouraging innovation and collaboration.

The main NESO deliverables under this priority are the Clean Power 2030 pathways, balancing services reform, zero carbon operation and connections reform.

Our existing commitments:

We will work closely with the government, Ofgem and customers to develop final changes under the Review of Electricity Market Arrangements (REMA)

In the first year of Business Plan 2 (BP2), we committed to assessing how different market design options in REMA interact with operational challenges posed by net zero. This work will continue as we become NESO and includes:

- 'Case for Change' that current scheduling and dispatch arrangements are not working as intended.
- An innovation project looking at the topic of 'co-optimisation', including the potential consumer and system benefits out to 2035 and implementation considerations.
- Assessment of different dispatch mechanism options to feed into DESNZ and Ofgem's parallel analysis of other reforms in REMA.

We will enhance our modelling and provide recommendations to facilitate the electricity Capacity Market

We will continue to deliver the annual Electricity Capacity Report (ECR).

We will develop further enhancements to security of supply modelling to support the transition to net zero (e.g. impact of weather, limited-duration technologies, demand side response, and European modelling).

We will deliver the Early View for Winter and our Seasonal Outlook reports

The Winter and Summer Outlook Report presents our view of security of supply for the electricity system for the season ahead. This helps to inform the electricity industry.

We will raise awareness to ensure industry preparedness and compliance with the new restoration standard

We will continue to work with industry partners to ensure the required changes needed to implement the new restoration standard is met by the end of 2026.

We will enable operation of the system at zero carbon in 2025 and deliver on balancing services commitments

To enable the safe and secure operation of a zero-carbon electricity system (100% ZCO) for periods by 2025, we will continue to deliver our remaining projects, products and programmes to increase the maximum ZCO%, subject to market conditions, over the remaining BP2 period. These key deliverables include the deployment of our full suite of response and reserve products, voltage and stability pathfinders, further reduction of minimum inertia requirement and improved tools for monitoring system inertia.

We will publish our annual Operability Strategy Report, outlining our strategy for meeting the operability challenges we expect to face as we move towards 100% ZCO, and a zero carbon electricity system in line with UK Government targets.

In our market reform activities we will continue to identify and remove barriers to access for market participants and increase procurement of more competitive and day-ahead services.

- We will launch further Reserve services on the Enduring Auction Capability (EAC) platform including a Slow Reserve and non-BM Quick Reserve service in summer 2025.
- In Response, further enhancements to the operational usage of our frequency response products will be implemented and we will explore competitively tendered within-day products and locational procurement.
- In Reactive, we will launch the first long-term (year -4) market tender when the right opportunity presents itself. Implementing the long-term market will drive locational investment and enable greater competition in the delivery of reactive power service provision.

We will work with distribution system operators (DSO) to enable efficient operational coordination and planning

We will continue to enhance operational visibility of Distributed Energy Resources (DER) into the Control Centre operational systems.

We will ensure all the required DER data is available to NESO that enables secure and economic operational whole system decisions to be made.

We will ensure DERs are able to access markets and we are able to manage operational risks.

We will participate in regular operational forums with DNOs to discuss all issues associated with DSO transition and establishment of enduring operational processes.

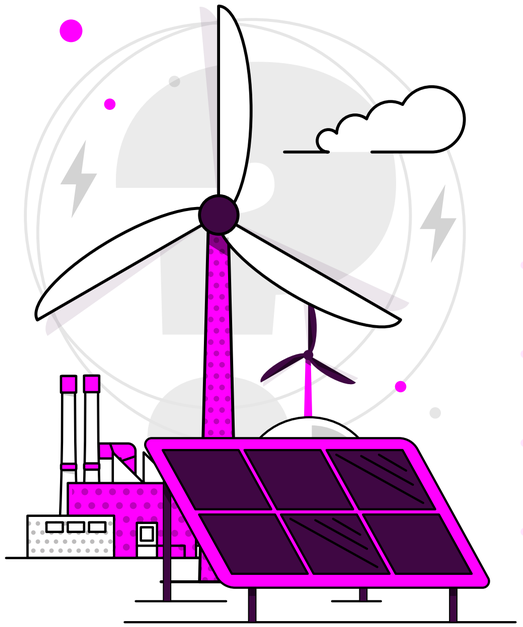
We will transform the customer experience to enhance the ease of doing business with us, including by delivering digital platforms that allow our customers to interface with us

We will continue to collaborate with stakeholders through the Stakeholder Connections Process Advisory Group, to enable industry to steer the detailed design and code modifications within the parameters set out in our final connections reform recommendations. This will be critical in helping us tackle the challenges we and the industry have faced.

We continue to drive modernisation of the technology our customers use to consume services and products from us previously associated with Markets and Connections role under BP2, such as Single Markets Platform, Electricity Markets Reform platform and Connections Portal.

We will support developers to energise their schemes and to meet generation compliance obligations

We will focus on collaborative working with industry, by continuing to host whole electricity system connections seminars on an ongoing basis. This will allow us to engage with customers such as DNOs, Transmission Operators (TOs), Energy Networks Association (ENA), Ofgem & DESNZ to address connections challenges and deliver on the whole system view of connections. Via the seminars, we are keen to maintain workshop-type engagement with industry instead of a one-way discussion and will evolve them accordingly, as per any customer and stakeholder feedback we may receive.



Our new commitments:

We will support the delivery of the Pathway to 2030 and Beyond 2030 network requirements and Clean Power to 2030

Our Pathway to 2030 and Beyond 2030 reports set out a series of network recommendations for onshore and offshore generation enabling the required network to achieve a zero-carbon electricity system by 2035.

The new Government's revised target of a zero-carbon energy system by 2030 (Clean Power 2030) has necessitated a review across NESO of current plans, including network design. We are heavily involved in the development of the Clean Power 2030 review and assessment of activity required to achieve the target. This is due to be published in the first few weeks following NESO go live.

We will produce our next study to assess longer-term resource adequacy in the 2030s, which is critical in understanding the risks for a decarbonised power system, it will include a new gas supply security assessment

Growing our expertise, we increasingly consider the whole energy system, linking strongly to our activities on strategic energy planning. This will include a new, dedicated role to assess gas supply security in this period.

We will publish our capacity adequacy study in Autumn 2024, that sets out the risks to security of supply as we transition to net zero, and the options on the capacity mixes to deliver security of supply for consumers.

We will implement our reformed connection process and work with network owners to deliver enhanced connections dates for customers with net zero aligned projects

We will:

- Efficiently manage an increasing volume of connection offers for customers
- Oversee and manage connection agreement contracts
- Monitor compliance of new connections in accordance with Grid Code provisions
- Provide technical support to the connection offer process (particularly when it comes to complex connections), assess offers to determine the future operability need, and ensure safe operation of the network

Furthermore, ahead of 2026, further updates to our connections portal will be complete providing a seamless connection process to transmission & distribution electricity networks across Great Britain.

Decarbonised Energy

We will develop integrated plans for a decarbonised, efficient and flexible energy system fit for the future.

The main NESO deliverables under this priority are the Centralised Strategic Network Plan, the Regional Energy Strategic Plans, the Spatial Strategic Energy Plan and a flexibility strategy.

Our existing commitments:

We will provide a range of different, credible pathways to decarbonise our energy system by 2050

Working with industry, the Government, Ofgem, and customers, we will produce our Future Energy Pathways (FEP) data book on an annual basis as we transition to NESO and build upon our analysis and insights to deliver our critical role for society and the economy.

We will develop our Data & Analytics platform and capabilities to enable high quality insights, advanced analytics and AI

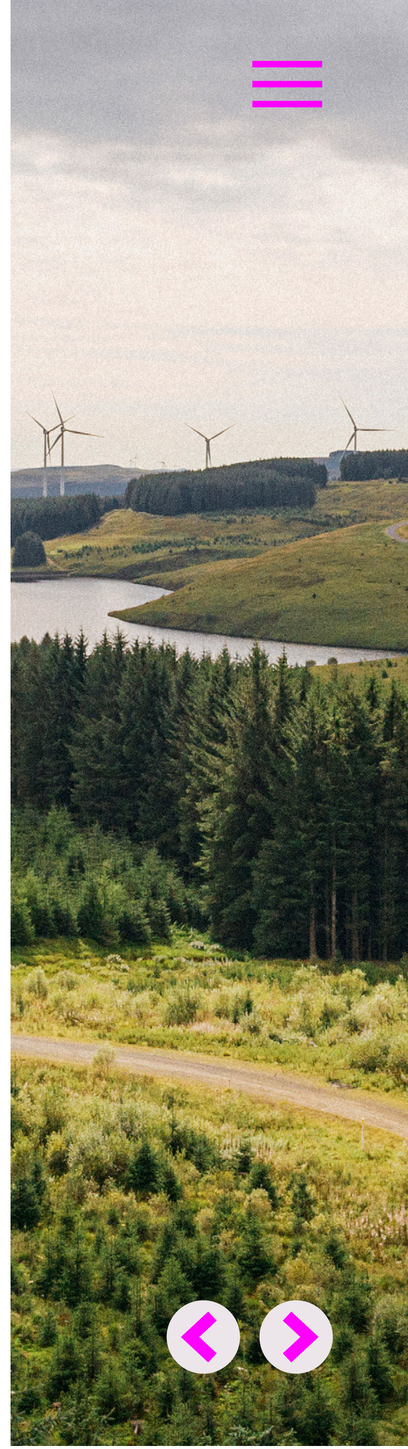
This will include:

- The ongoing development and support of system data and models used to analyse future network needs and operability solutions by different teams in NESO.
- Embedding authoritative data sources via an enterprise data model based on the Energy Common Information Model (CIM).
- Establishing the capability to run “what if” scenarios linking data models using plain English syntax.
- Continued phased deployment of the Digital Engagement Platform to enable customers to discover and access open data.

During this period, we will have evolved our Data and Analytics Platform. This will facilitate AI within NESO from a centralised, connected, open and transparent system for our new Control Centre architecture, and advancement in scenario planning across strategic energy planning.

We will drive commonality and standardisation, and interoperability across network planning data

We work on the data transfers between network organisations in accordance with current Grid Code and System Operator Transmission Owner Code (STC) requirements – managing operational data flows across network companies to underpin offline network analysis that we carry out.



Our new commitments:

We will work with government and customers to ensure security of supply through the 2020s and into the 2030s

We will undertake our energy security assessments by considering the uncertainty in future energy supply and demand, through holistic scenarios that consider, for example, macro-economic conditions, weather, geopolitical risks where appropriate and competing national priorities across the whole energy system.

We will drive independent analysis with effective collaboration, providing objective & impartial analysis to industry and government, meeting the needs of our customers through effective engagement that also draws on the insights of others.

We will embed our new Resilience and Emergency Management roles to take a whole system perspective on system resilience and emergency response preparedness for Great Britain

We will assess whole energy industry emergency response preparedness, submitting our seasonal readiness reports to government.

- Our first winter readiness reports will be submitted in this period, as well as our first ever summer readiness report.
- We will submit our first whole energy industry emergency response preparedness report during this period. This will assess whole energy industry emergency response preparedness for a specific stress event.

We will develop an understanding of risks to the whole energy system, considering the energy transition to net zero and adapting to climate change.

We will also produce our first energy resilience assessment report during this period. This report will identify and evaluate whole energy risks, vulnerabilities and threats to the whole energy system, assessing the likelihood of potential impacts to our society.

We will embed our new strategic planning roles in Centralised Strategic Network Planning (CSNP) along with further development of our new roles in Strategic Spatial Energy Planning (SSEP) and Regional Energy Strategic Planning (RESP)

We will deliver, between now and 2027, the initial series of outputs which progressively create a strategic energy plan for the whole of Great Britain.

We will develop relationships with key customers and work with Ofgem as they lead the design of the RESP function, governance and boundaries. Ofgem's consultation regarding the scope, roles and accountabilities for RESP was launched in July 2024 which included a target date for the first RESP output of 2026, we are expecting Ofgem's decision of NESOs role for RESP in December 2024.

We will continue to work closely with the UK, Scottish and Welsh governments to develop and deliver the first GB Strategic Spatial Energy Plan. The overall goal of the SSEP is to help accelerate and optimise the transition to clean, affordable and secure energy across GB by providing greater clarity to industry, investors, consumers and the public on the shape of our future energy system. We will continue to set up the SSEP team to deliver and will be working closely with DESNZ as we develop the SSEP in line with the Electricity Network Commissioner's recommendations.

To ensure full transparency and stakeholder engagement to shape and understand these new NESO strategic planning roles, for each of SSEP, CSNP and RESP we will develop methodologies for our approach. These methodologies will be created with industry input and formally consulted upon before implementation. These will be developed with each recognising the others methodologies and ensuring that the outcome of Clean Power 2030 is factored into our methodologies so that each are consistent and provides a smooth transition.

We will deliver the first NESO-led Gas Network Development Plan as part of CSNP

NESO's responsibilities include the new mandate of gas and whole system network planning roles (amongst others). NESO will deliver the first Gas Network Capability Needs Report during this period, and will work closely with National Gas Transmission to deliver the gas transmission network development plan.

We will engage with a broad range of customers so they can understand, input into plans and become advocates

We will:

- Collaborate with customers across industry, including government and the regulator, with maximum transparency on our communications, methodologies, and data.
- Provide clarity to industry on the role of NESO in SSEP and RESP, how we will be engaging with customers moving forwards and our deliverables.
- Broaden and deepen our customer interactions with national and local government bodies and industry participants.
- Create a regional presence by hiring teams locally who can support the needs of the different planning regions.

We will build a Geospatial Platform to enable location intelligence, eco-system and spatial modelling

Delivery of a geospatial and location intelligence solution to allow customers access to interactive maps to support investment decisions and planning information specific to the differing needs between SSEP, CSNP and RESP. This strategic platform can be extended to additional use cases across NESO. The platform will include:

- Spatial modelling and visualisation of key data assets, providing transparency and improved ability for our customers to connect to the network.
- Location informational services enabling NESO and our customers to better connect to the network.

We will provide impartial advice, analysis and information to the government and Ofgem upon request, across the whole energy value chain, including generation, transmission and consumption of energy

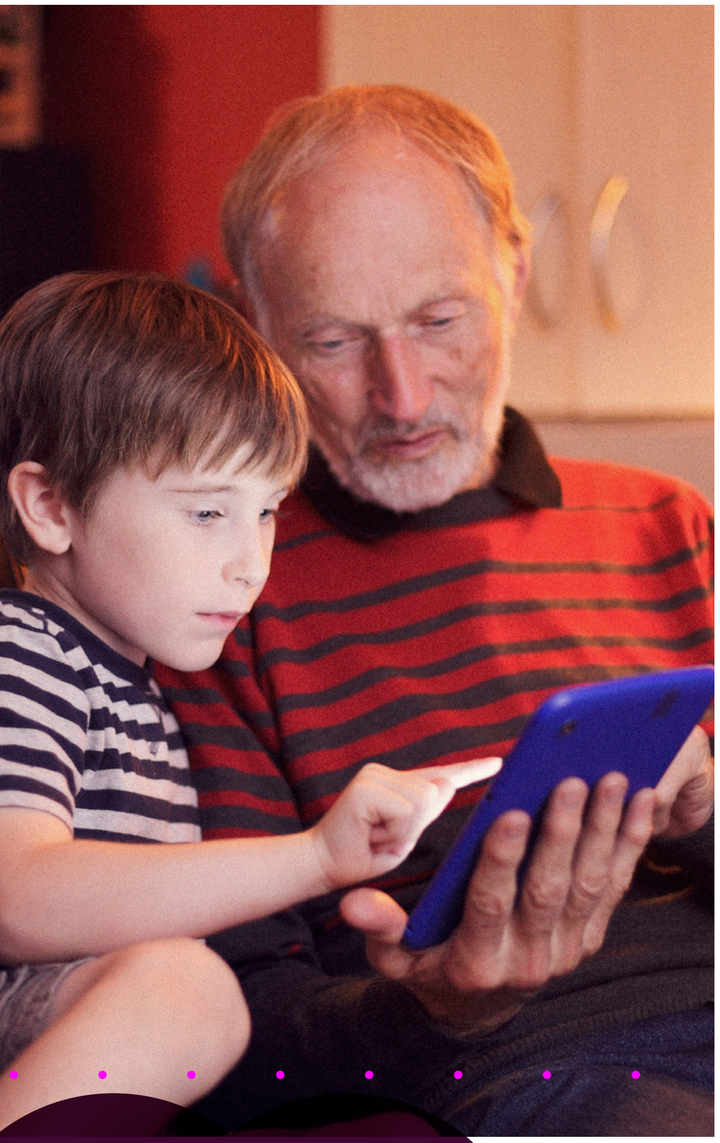
The advice will be grounded on horizon scanning research, data, stakeholder engagement and analysis, as appropriate. By keeping track of emerging energy policy, we'll be able to gauge what impact our advice has had on shaping the Government and Ofgem's priorities.

We will formally take on whole energy market strategy roles and drive action on gas market strategy

We will coordinate engagement with gas market customers and drive action on gas market strategy. We will lead and set the new direction of the Future of Gas Steering Group and Forums. We'll also publish and deliver the Gas Markets Plan (GMaP) independently for the first time, prioritising projects that drive a strategic shift as we evolve towards whole system thinking.

We will co-create a flexibility strategy, helping unlock distributed flexibility potential and creating coherent markets

- We will develop a long-term distributed flexibility strategy which is aligned with Markets roadmap and wider markets strategy in a way to facilitate the continued growth of distributed flexibility in our markets.
- We will update or create markets to allow further participation from Distributed Flexibility where appropriate.
- We will enable greater alignment of flexibility markets across NESO and DSO with data available to those that need it.
- We will establish and grow capabilities across flexibility market strategy and whole system with dedicated teams.



Consumer Value

We will have unlocked around £3 billion of consumer benefits by 2026 through delivery of our commitments.

We estimate the consumer benefits of our RIIO-2 activities at around £3 billion. You can find out more about our cost-benefit analyses in 'Annex 2' of our RIIO-2 Business Plan. This estimate includes the benefits of the existing commitments listed under the 'Clean Power' and 'Decarbonised Energy' priorities.

The main NESO deliverables under this priority are a balancing costs strategy, initiatives to increase market participation and technology modernisation.

Our existing commitments:

We will remain focused on optimising balancing costs by implementing our Balancing Costs Strategy out to 2030 and beyond

Our Balancing Costs Strategy sets out a comprehensive list of initiatives that we are undertaking to minimise balancing costs across four main strategic levers:

- Designing and procuring new services and markets, with greater competition at an optimised price, such as reforms to our response and reserve markets, as well as our Network Service Procurement initiatives.
- Designing the GB network and managing delivery of changes to optimise availability and reduce constraints, with savings realised by initiatives across thermal, stability and voltage constraints.
- Exploring innovative solutions to analyse and drive down costs, including our Causal Analysis of Balancing Costs with Imperial College London.
- Enhancing the products and processes used by our Control Room, with further IT releases scheduled across 2024 and 2025 under our Balancing to improve our forecasting and control room capabilities.

We will open new opportunities and removing barriers for all market participants, reducing costs for consumers

To remove barriers to emerging technologies and business models, and drive down consumer costs through increased competition, we will:

- Continue to deliver on our ongoing commitment to remove barriers for market participants to contribute to Distributed Flexibility via our Power Responsive Programme and the actions set out in our Flexibility Markets Strategy.
- Introduce additional new capabilities on our Open Balancing Platform, enabling new services such as Quick Reserve and Slow Reserve to be delivered, both of which provide new market opportunities for market participants.

We will make our data available and open through our data portal

We will increase our ability to share trusted data openly with industry participants through proactive identification, prioritisation and publication of more datasets and insights. We will embed strong data protection control to ensure only trustable data is shared, and that it has been risk assessed and appropriately protected.

We will create a Data Catalogue, which will provide visibility of Energy System Data across government, the regulator, and industry

We will develop a Data Catalogue to provide external users with a view of NESO data, its associated metadata that adheres to Ofgem Data Best Practice, and enable internal users to understand our data for better insights and to develop their own data products.

We will deliver the technology modernisation needed to transform our control centre operations

We will continue to progress all our IT investments associated with our control centre operations role, including:

- Continuing to integrate new services into our Open Balancing Platform, while retaining balancing capability by introducing functionality and improvements in our existing systems.
- Support the delivery of other initiatives through cross programme integration, including the Single Markets Platform and the Data and Analytics Platform.
- Delivery of our new Network Control Management System (NCMS) toolset in Autumn 2025.
- Additional enhancements to our forecasting capabilities, such as the release of our next-generation wind forecasting product later in 2024.

Our new commitments:

We will proactively explore, model and produce energy insights on topics which will be of most value to consumers, government and industry in driving forward progress on decarbonisation

The insights will be grounded on horizon scanning research, data, stakeholder engagement and analysis.

Once we've published insights, we'll be closely following their impact on the energy system, from how it informs policy decisions to the extent it may inform industry and influence investor confidence.

We will deliver a data sharing infrastructure pilot and minimum viable product

This will enable trusted, secure, resilient sharing of interoperable data across the sector.

We will launch the first tender for early competition in onshore electricity transmission networks

By introducing competition to design, build and own onshore transmission assets, consumers will benefit from additional innovation and cost efficiencies during project delivery. Ofgem intend to identify the first project as being suitable for Early Competition by the end of 2024.

In preparation, we will continue to develop and progress towards implementing the detailed tender process and commercial model, and work with Ofgem to establish the frameworks required to underpin the Early Competition regime. We will also progress any necessary industry modifications to enable implementation and engage with industry to prepare for the first tender.

NESO

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