

**Electricity
Distribution**

**A Guide to
our Governance
with the Distribution
Network Operator**

March 2025

nationalgrid ▶ **DSO**



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Foreword

This document sets out the progress we have made in developing our governance structures which help ensure the independence of the Distribution System Operator (DSO) from the rest of National Grid Electricity Distribution. In the second year of the regulatory price control (RIIO-ED2) we have further developed our DSO function and challenged ourselves to embed Functional Separation throughout the business and communicate it wider for greater stakeholder assurance.

This year we created the role of Managing Director of the DSO. We did this to strengthen the position of the DSO both internally and externally as a Functionally Separate part of NGED.

With this in mind, we took the decision to further separate our branding from NGED and present ourselves outwardly as National Grid DSO to ensure stakeholders know what part of the organisation they are working with.

We have consolidated our approach to independent oversight by further embedding our DSO Panel.

Since its first formal meeting in March 2024, the Panel has been working to scrutinise our decision-making to ensure that the DSO provides value to customers. As part of their role, the DSO Panel has pushed us to further focus on governance and transparency.

This updated Guide to Governance document outlines for stakeholders our control documents, how we take decisions, and how they can be assured that their interests are at the heart of everything we do.

It sets out our newly established Functional Separation Steering Group which will drive forward work on risk management and compliance as we build towards an audit of our key processes across the DSO. This is a critical commitment of ours to provide clarity and build trust that our DSO is delivering in the right way.

Close collaboration between the DNO and DSO is fundamental for the safe and secure operation of the electricity network and to facilitate the transition to a decarbonised energy network. At National Grid, our vision is to be at the heart of a clean, and affordable energy future, which guides us in how the DNO and DSO work together in the most effective way.

Cathy McClay
Managing Director of DSO



Introduction and purpose

This document is intended to:

- outline what National Grid DSO is and what our objectives are
- explain the context within which National Grid DSO operates as part of National Grid Electricity Distribution (NGED) and the wider National Grid Group
- reiterate our previous commitments on governance and what we have achieved in the last year
- introduce our independent DSO Panel
- define our updated approach to Functional Separation, and how this benefits our stakeholders in the current regulatory landscape
- articulate how conflicts of interest between the DSO and wider NGED functions are managed and why this is important
- identify other notable updates to our approach since 2024 after a year of feedback from stakeholders and our DSO Panel. Key changes include:
 - the appointment and activities of our DSO Panel
 - an updated operating structure
 - the expansion and publication of our DSO Policy Suite and the key interactions between the DSO and wider NGED functions within these.

Our aim is to help stakeholders navigate the relatively new functions of the DSO as it operates alongside the rest of NGED, to be open and transparent, with a view to obtaining feedback on our evolving approach.

One of the first things our independent DSO Panel challenged us on was to be more transparent about how we operate for the benefit of stakeholders.

This renewed Guide to Governance is intended as a comprehensive, single point of reference which provides evidence and assurance of how our DSO operates and adds value.

Audience and review



This document is intended to provide transparency to stakeholders on how the DSO interacts with the rest of NGED and allow stakeholders to provide views on how we are managing perceived conflicts of interest in a meaningful way.



This document will be reviewed by the DSO Executive on an annual basis. We will seek views on relevant DSO-DNO interface issues via our programme of workshops and events throughout the year.



There are detailed operational policies that support this publication that are used by DSO and DNO teams to inform decision-making¹.

¹ The DSO's policy documents are published on our website in the DSO Policy Suite: nationalgrid.co.uk/dso

Who we are

National Grid DSO is a functionally separate directorate operating within National Grid Electricity Distribution (NGED) licensed areas. Within this document, references to NGED refer to the collective group of licensed entities.

We have defined **Functional Separation** as **having an electricity distribution licensee structured as a single business comprising both DSO and DNO roles, but with the DSO roles conducted by a dedicated DSO directorate within the business. The rest of the business retains the DNO roles together with shared functions. The DSO directorate, in consultation with the rest of the business, designs control measures to manage the risk that the interests of these two roles conflict with each other. The whole business applies these control measures.** Our approach to Functional Separation is outlined in this document.

NGED is the largest electricity Distribution Network Operator (DNO) group in the UK, serving eight million homes and businesses across the Midlands, Southwest England and South Wales. Our network covers densely populated residential areas and widely dispersed rural communities. Since 2022, NGED has been part of the National Grid Group.

NGED manages a network of more than 188,000 substations, over 225,000 kilometres of underground cables and overhead lines and nearly 1.4 million poles and towers, spanning 55,000 square kilometres.

The DNO is responsible for all other activities not covered by the DSO in the distribution of electricity through its Distribution System,

including providing connections to that system. The DNO does this through:

- maintaining and replacing equipment so that the network remains reliable
- operating and protecting the network assets
- connecting customers by utilising existing capacity or upgrading our network
- building and reconfiguring network to meet future demand (as proposed by or with agreement from the DSO)
- maintaining customer and community relationships, acting as the point of contact if issues arise and deploying engineers to repair the network should equipment be damaged or become faulty.

For clarity, we have defined these roles within our new DSO-DNO Functional Separation Arrangement Document.

This is published on our **website**² and sets out the commitments to Functional Separation.

² DSO-DNO Functional Separation Arrangement Document: nationalgrid.co.uk/dso

National Grid DSO: Core roles and responsibilities

The DSO has three core roles which were established by Ofgem in a series of consultations and explained in their guidance published in 2023³ and outlined in our DSO Charter⁴:

<p>1 Planning and network development</p> <p>Plan efficiently in the context of uncertainty, taking account of whole system outcomes, and promote planning data availability.</p>	<p>2 Network operation</p> <p>Promote operational network visibility and data availability.</p> <p>Facilitate efficient dispatch of distribution flexibility services.</p>	<p>3 Developing markets for flexibility</p> <p>Provide accurate, user-friendly and comprehensive market information.</p> <p>Embed simple, fair and transparent rules and processes for procuring distribution flexibility services.</p>
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³ Ofgem DSO Incentive Governance Document (October 2022 Decision 2023): [ofgem.gov.uk/decision/decision-proposed-modifications-riio-2-electricity-distribution-licences](https://www.ofgem.gov.uk/decision/decision-proposed-modifications-riio-2-electricity-distribution-licences)
[ofgem.gov.uk/sites/default/files/2022-10/DSO%20Incentive%20Governance%20 Document%20Consultation.pdf](https://www.ofgem.gov.uk/sites/default/files/2022-10/DSO%20Incentive%20Governance%20Document%20Consultation.pdf)

⁴ National Grid DSO Charter (November 2023): nationalgrid.co.uk/downloads-view-reciteme/649243

National Grid DSO: Additional roles and responsibilities

In addition to the core roles defined by Ofgem, National Grid DSO leads on the delivery of additional accountabilities which support both the DSO and DNO.

The functions listed below were not mandated as DSO-specific by Ofgem, but we believe locating them within DSO offers best value to customers as they utilise the technical expertise of the DSO to support customers and our wider NGED business objectives.

These are:

1

Provision of network models and analysis tools to support both DSO and DNO activity on connections and outage planning.

Benefits to inclusion within the DSO:

- reduces NGED costs (and therefore customer costs) by using the same network models and analysis tools used in both the DSO and DNO
- it creates one version of the truth in terms of the network model used across NGED, which supports accuracy and efficiency of decision making
- it creates one version of the truth in terms of network model use across NGED, which supports accuracy and efficiency of decision making.

2

Transmission-Distribution (T-D) interface management analysis is provided to support the Statement of Works process.

Benefits to inclusion within the DSO:

- the Transmission-Distribution interface is where we work with the National Energy System Operator (NESO) to maximise the export capacity of generation from the distribution network to the transmission network
- we've positioned the T-D interface within the DSO because it complements the core DSO role of strategic planning
- this is because it enables the right balance of demand and generation on the NGED network, aligned to our wider strategic plans which are informed by customers. In the last year, we've created a specific Transmission-Distribution interface team in response to the significant increase in work driven by connections reform and Clean Power 2030.

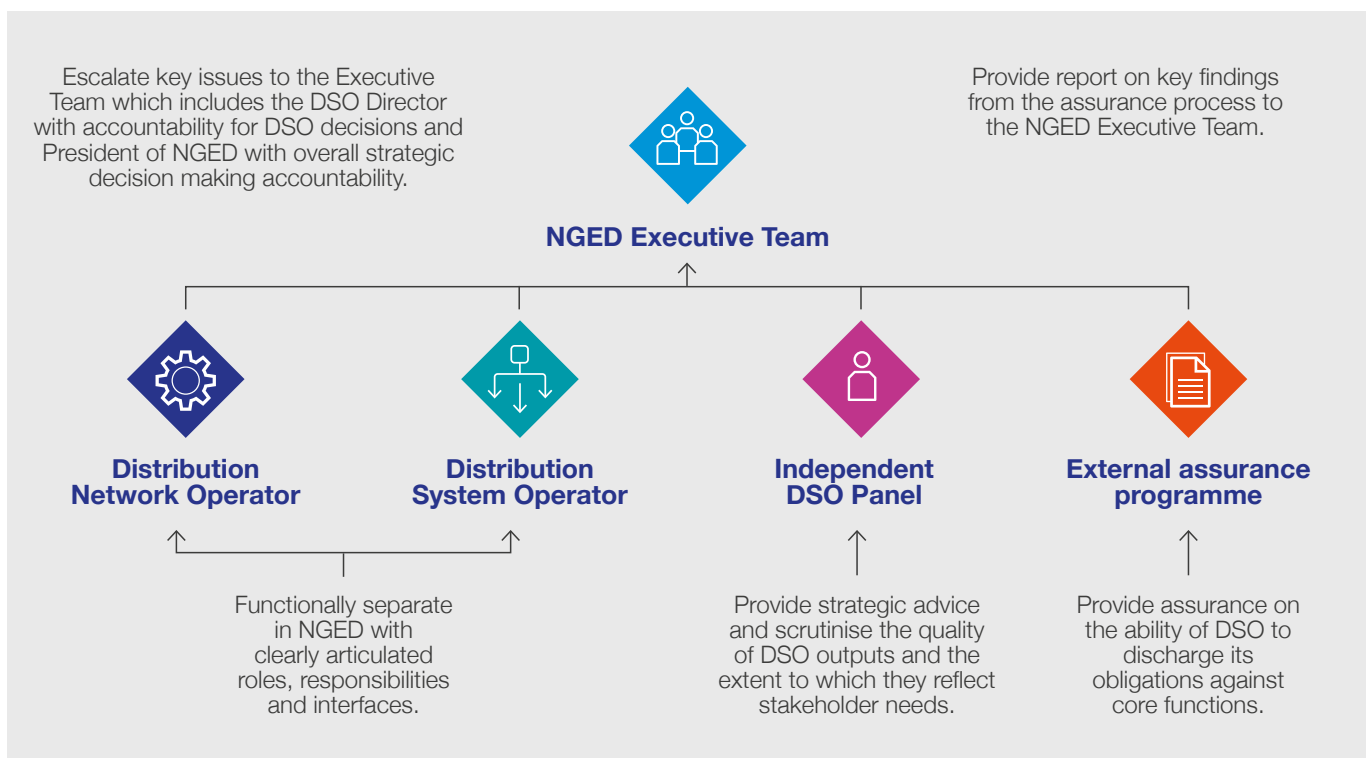
The RIIO-ED2 Business Plan commitments on DSO governance

Our RIIO-ED2 business plan runs from April 2023 to March 2028 and made three main commitments on DSO governance:

- | | | |
|--|--|--|
| <p>1. Set up an independent Panel</p> | <p>2. Establish Functional Separation</p> | <p>3. Develop an external assurance programme</p> |
|--|--|--|

We have developed our approach over the last year based on these commitments. Our progress is outlined throughout the rest of this document.

Our DSO-DNO governance commitments



These priorities are established within our governance structure through the DSO Parent Directive, which is summarised further in this document.

One year on - our governance progress after twelve months

The commitments on the previous page were published in the first iteration of our Guide to Governance in March 2024. Since then, we've been working to establish best practice operating processes for the DSO within NGED.

- We formally launched our DSO Panel, which held four all-day meetings and multiple deep dive sessions. The Panel has already made tangible impacts on the DSO, most notably in our approach to governance and transparency. You can find out more about the work of our Panel on the next page.
- Reviewed our Conflicts of Interest process which, following engagement with our DSO Panel, we enacted and published as part of our Parent DSO Policy Directive in November. This has been further expanded with the publication of our Functional Separation Policy in March.
- Created the role of Managing Director of DSO, to embed Functional Separation at NGED executive level and with our external stakeholders.
- We've formally defined our approach to Functional Separation and created an internal Functional Separation Steering Group to create and embed the policies which we will then seek assurance on.
- Used the Steering Group to drive awareness of the DSO forward internally and improve DSO-DNO working arrangements.
- Expanded our headcount and updated our operating structure to maximise our effectiveness.
- Published our Key Performance Indicators (KPI) on our website for the first time in July. As part of our drive for transparency, we want to demonstrate our progress as a DSO. These KPIs are now published quarterly.
- Redefined our approach to risk management through the introduction of a digital risk management tool.

This version of the Guide to Governance documents our current suite of policies, as well as highlighting updates where our approach has evolved.

Our independent DSO Panel

Over the course of RIIO-ED2, NGED committed to introducing measures to ensure independent oversight and external assurance of its DSO. This included appointing and convening an Independent DSO Panel in an advisory capacity⁵.

Our vision for the Panel is for it to act as the high-level scrutiny and assurance function of our approach to Functional Separation, but also as a non-executive, forward-looking ‘critical friend’ advisory board for the DSO.

This is enshrined through the Panel’s **Terms of Reference⁶**, published for transparency. Within its remit, the Panel challenges us on our decision-making processes, on our transparency and on our wider DSO activities.

The Panel’s overarching purpose is to ensure the DSO arrives at the right decisions for customers supported by robust governance processes.

In carrying out its remit, the DSO Panel may request specific agenda items for discussion at its quarterly meeting, meet with DSO officers in targeted deep dive sessions, or provide advice to the DSO through its combined expertise.

It may also commission research and/or analysis relevant to effective DSO operation as it sees fit.

To achieve the above, we appointed a chair and Panel members with extensive regulatory and industry experience across the sector to shape our DSO processes at an early stage. To support them in this, National Grid DSO has a dedicated Secretariat embedded within the DSO to pursue its objectives between meetings.

The Panel has a spread of skills and expertise which we mapped at an early stage of the appointment process.

The Panel has held four in-person meetings to date, plus an additional five online sessions in which it is taken through our processes in-depth to scrutinise and challenge us on current thinking.

The DSO will also request the input of the Panel in its role as a ‘critical friend’ as required and has done so throughout the formation of our governance processes.



Regina Finn
DSO Panel Chair



Doug Cook



Janine Michael



Nina Skorupska

⁵ This is different to the DSO Performance Panel, which is appointed by Ofgem to assess DSOs’ performance

⁶ Terms of Reference: National Grid Independent DSO Panel: nationalgrid.co.uk/nged-dso-panel

In its first full year of operation, the DSO Panel has provided crucial scrutiny and guidance to our DSO team:

- driving for a more transparent governance and decision-making process for greater assurance of customers, and maximise efficiencies by reaching the right decisions quickly
- pushing for a more robust approach to performance measurement and KPIs, including the regular publication of the latter (latest available [online](#)⁷)
- challenging us on Strategic Workforce Planning to ensure National Grid DSO is more resilient and best prepared for the future. Their inputs will continue to shape our thinking as we further develop our DSO team and drive best outcomes for consumers
- exploration of the wider, life cycle carbon impact of flexibility services to provide our customers with more information. The Panel has pushed us forward on our internal approach to this
- encouraging greater collaboration with other DSOs, such as on customer experience through the standardisation of key interfaces for Market Flexibility portals, as well as general data availability to make greener use of energy a reality
- supporting our response to the Regional Energy Strategic Plan (RESP) through providing valuable challenge and input from an external perspective of our DSO.

As part of our wider commitment to openness and transparency, public summary minutes of Panel meetings are published on our [website](#).

The Chair of the Panel also presents an annual [report](#) to the NGED board without DSO representation to provide independent assurance of our processes. This is also published on our website.

We would like to express our gratitude to our Panel members for their time and input over the last twelve months.

⁷ National Grid DSO Performance Metrics nationalgrid.co.uk/dso/dso-performance-metrics

Establishing Functional Separation

We approached last year as a learning phase for the provision of DSO functions, and continually sought stakeholder views on this.

We approached last year as a learning phase for the provision of DSO functions and continually sought stakeholder views on this. One of the first themes which emerged from engagement with our external stakeholders and our DSO Panel was a need to go further with transparency in our governance to provide greater clarity and assurance for stakeholders.

We have therefore taken steps to address this and embed this approach throughout our policies.

As part of baseline expectation 3.2.5 of the **DSO Incentive Governance Document**⁸, DNOs were instructed to introduce other proportionate measures, developed with robust stakeholder engagement, to identify and address actual and perceived conflicts between its DSO and network ownership roles or other business interests.

The introduction of such measures should enable DNOs to efficiently plan, develop and use their network, taking into account and using flexible alternatives to network reinforcement where efficient for the system, in a visibly neutral way. Each DNO has taken their own path to achieve this.

NGED evaluated a range of approaches as part of its initial response to the DSO incentive. This included a consideration of end costs to customers, the operational benefits of each approach, as well as considerations of how DSO would feature in the future regulatory landscape.

A full mapping exercise of these considerations was undertaken. It should be noted that the definitions in the table for each option are those of National Grid and other DSOs may use these terms to mean different things.

	Functional separation-lite	Functional Separation	Legal separation-lite	Legal separation	Legal separation (NESO)
Key options	Functional separation with executive level accountability Board level visibility Separate decision-making frameworks Independent oversight	As functional separation-lite, plus: independent Panel with published terms of reference and outputs operational agreement separate visual brand	As functional separation, plus: Separate legal entity	As legal separation-lite, plus: operate using a separate DSO license information ringfencing	As legal separation, with: financial ringfencing shared services ringfenced separation of employee remuneration and entity
Risks and benefits	Increasing level of transparency relating to the roles of the DNO and DSO functions				
	Increasing perception of independence of decision making between the two functions				
	Increasing perception of leadership relating to dispensing of the DSO function				
	Speed of decision making across the DNO:DSO interface				
	Greater flexibility to adapt approach amid future regulatory changes				
	Longer time to implement				
	Higher cost to consumer to implement				

⁸ Ofgem DSO Incentive Governance Document (October 2022): [ofgem.gov.uk/sites/default/files/2022-10/DSO%20Incentive%20Governance%20Document%20Consultation.pdf](https://www.ofgem.gov.uk/sites/default/files/2022-10/DSO%20Incentive%20Governance%20Document%20Consultation.pdf)

Why Functional Separation?

We selected Functional Separation as a pragmatic and cost-effective way of implementing DSO which achieved best outcomes for customers. This was because Functional Separation:

- enables efficient working through the sharing of relevant data, knowledge and services between DNO and DSO functions
- keeps costs to consumers down through reduced duplication of resource and use of NGED supporting functions and office space
- keeps the DSO in an agile position to adapt to the wider regulatory environment
- allows for robust mitigation of perceived and realised conflicts of interest through processes and transparency in decision making.

We do not see benefit in Legal Separation Lite; we consider the creation of a separate legal entity as purely cosmetic unless it has a high-level board that is completely independent of the DNO functions.

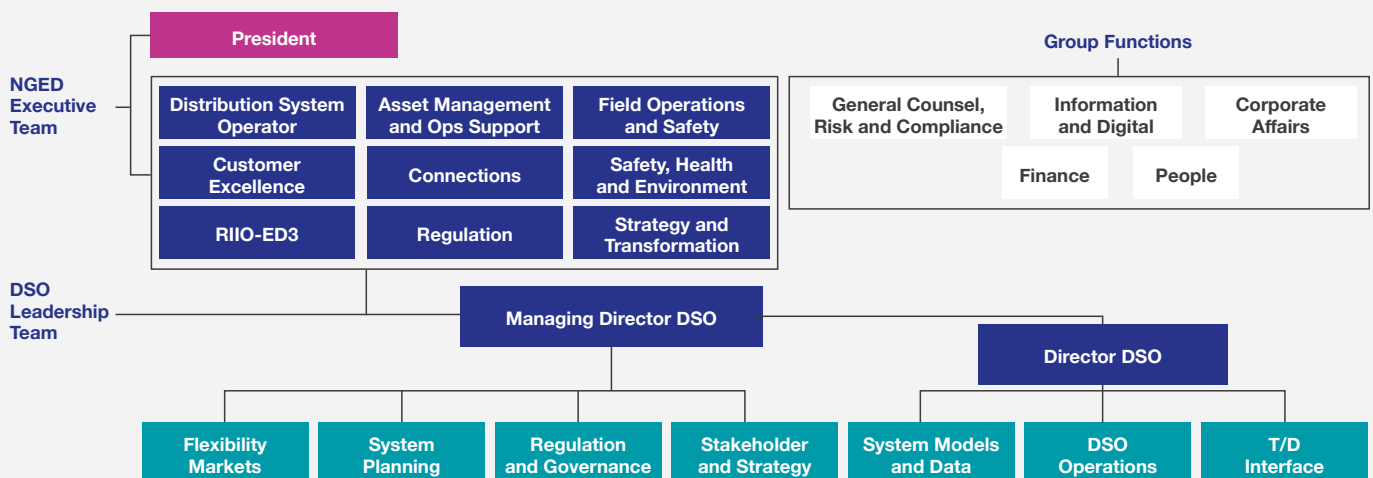
We believe that we can deliver the same confidence in the independence of the DSO without the expense of taking this step through increased transparency of our governance and strong stakeholder engagement.

We do not consider moving even further to Legal Separation to be operationally efficient or cost effective at present. The overhead of a separate price control for a DSO licence would be considerable and would make co-ordination between DSO and DNO more complex.

In addition, in a world of presuming data is open, we are striving to share data with all our stakeholders, including the DNO. Instead within the functionally separate framework, we are focused on ensuring that we have adequate controls on our data together with clear ownership and transparency so that the DSO and all our stakeholders can confidently make decisions based on the available data.

As a result of Functional Separation, the DSO directorate acts with an increased degree of autonomy compared to other directorates and uses separate branding for the clarity of stakeholders.

We have established separate DSO teams within the NGED structure, and board level accountability for DSO responsibilities.



Over the last twelve months, we have sought to embed Functional Separation across our policies, which are explained in the next section.

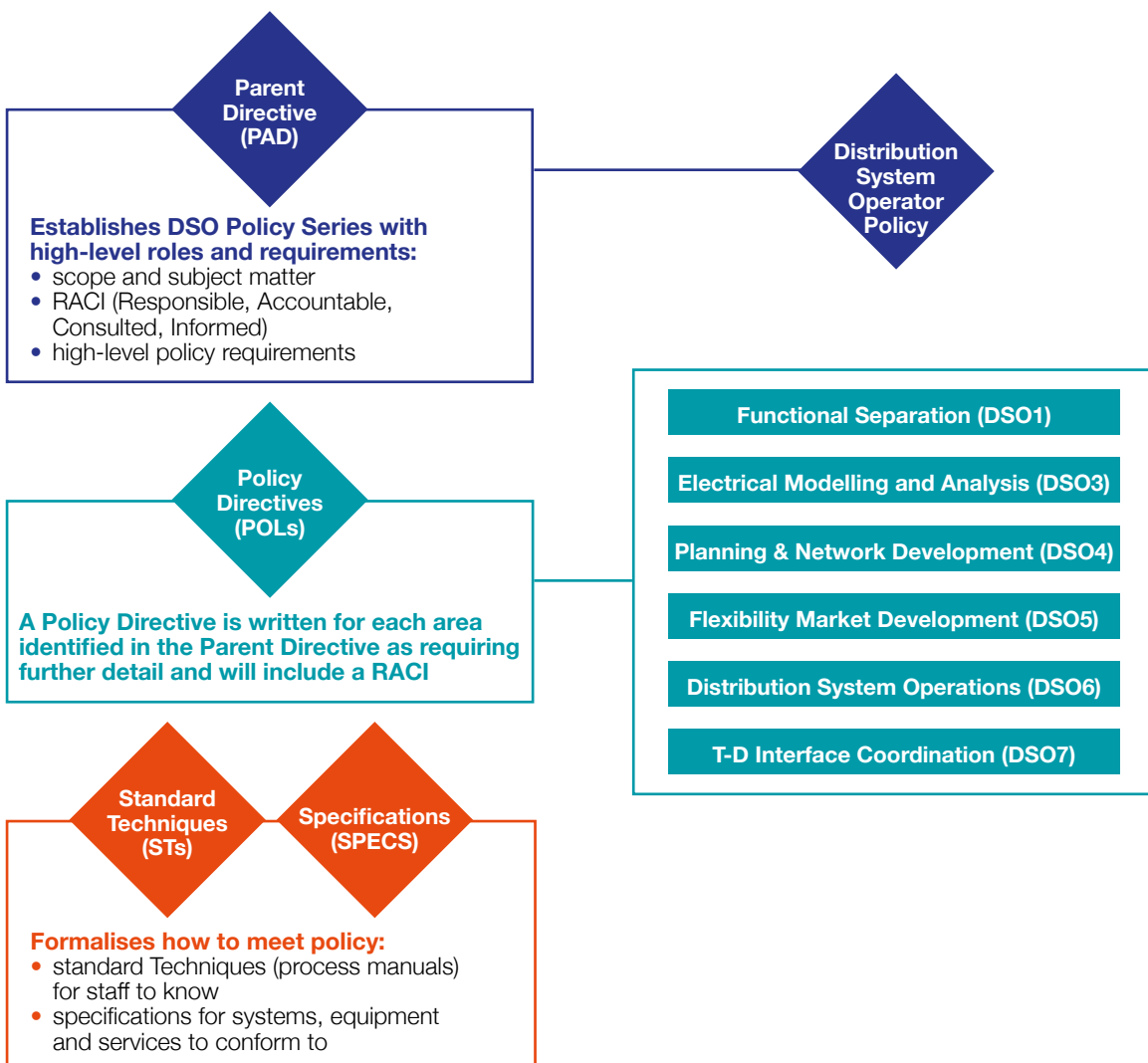
DSO Policies: How our policies are organised

National Grid DSO operates within the same policy structure and general procedures as the rest of NGED. In specific areas where the need for separate processes to run our DSO has been identified, we have created specific policies to outline these.

The DSO Policy Suite establishes these within the structure, with operational policies stemming from the DSO Parent Directive.

As part of the standard procedure for creating policies within NGED, each policy is taken through a consultation process whereby the wider organisation, including the NGED Executive team, are invited to comment on the proposal. However, editorial control of the policy remains with Managing Director DSO.

NGED's policy suite has three tiers:



This updated Guide to Governance provides an accessible overview of our DSO-DNO governance processes, which are captured in the Parent Directive and subsequent Policy Directives, which we publish online⁹ for transparency.

Our internal technical process manuals, known as Standard Techniques and Specifications, are not published due to their internal focus.

In line with the advice of Stakeholders and our DSO Panel, we want to better demonstrate that we understand the importance of being open and transparent in our processes. In the following section, we provide an accessible overview of our main governance processes and highlight our DSO-DNO interactions.



⁹ National Grid DSO Policy Suite: nationalgrid.co.uk/dso

Policy Directive DSO1: Functional Separation

This is a newly introduced policy which sets out our approach to Functional Separation between the DSO and DNO and outlines how we manage these arrangements. We've created this policy in response to feedback from stakeholders and our DSO Panel to increase the transparency of how we make decisions. The below sections are included in the policy, and expanded on in subsequent pages.

Functional Separation of the DSO from the DNO

The policy establishes how we have separated the DSO from the DNO. This is being driven forward by the Functional Separation Steering Group, which is explained on page 17.

DSO-DNO Conflicts of Interest

The Policy sets out our formal approach to managing DSO-DNO conflicts of interest. Our approach to managing and mitigating this is outlined for stakeholders on page 18 of this document.

Scrutiny of our Governance

Functional Separation is underpinned by having an Independent DSO Panel with a dedicated Chair and members.

A wider explanation of the role and activities of our Panel in its first full year of operation was outlined earlier in this document on page 10.

We have also made progress on our approach to audit and assurance in the last year, and this is outlined on page 21.

Additional control measures for Functional Separation

In addition to the above, the policy defines and establishes our control measures for enacting Functional Separation.

Finance

The DSO is treated as a separate function within National Grid's Electricity Distribution business, and personnel costs of the DSO function are reported separately.

Branding

We implemented a distinct DSO visual identity to differentiate the DSO from the rest of the NGED business whilst maintaining the brand recognition of National Grid Group as a supportive parent company.

In the last year we have acted on feedback to give stakeholders further clarity on what part of National Grid they are engaging with, and at our DSO Stakeholder Event on 20 March, we launched our latest branding and website.

Data and Information

DNO and DSO data is presumed open across the DNO and DSO, and to our external stakeholders in accordance with the data principles established by Ofgem.

In cases where any data, which isn't publicly available, is not currently readable across both parts of the business by default, we will work to make that happen. Where data is commercially sensitive, access will be further controlled via read and/or edit permissions as relevant to an individual's role within the organisation.

Regulatory Reporting

The DSO has separate reporting in the annual Regulatory Reporting Pack including separate line items for flexibility, numbers of low carbon technologies accommodated, and volumes of reinforcement capacity delivered. We publish our **Key Performance Indicators**¹⁰ on a quarterly basis.

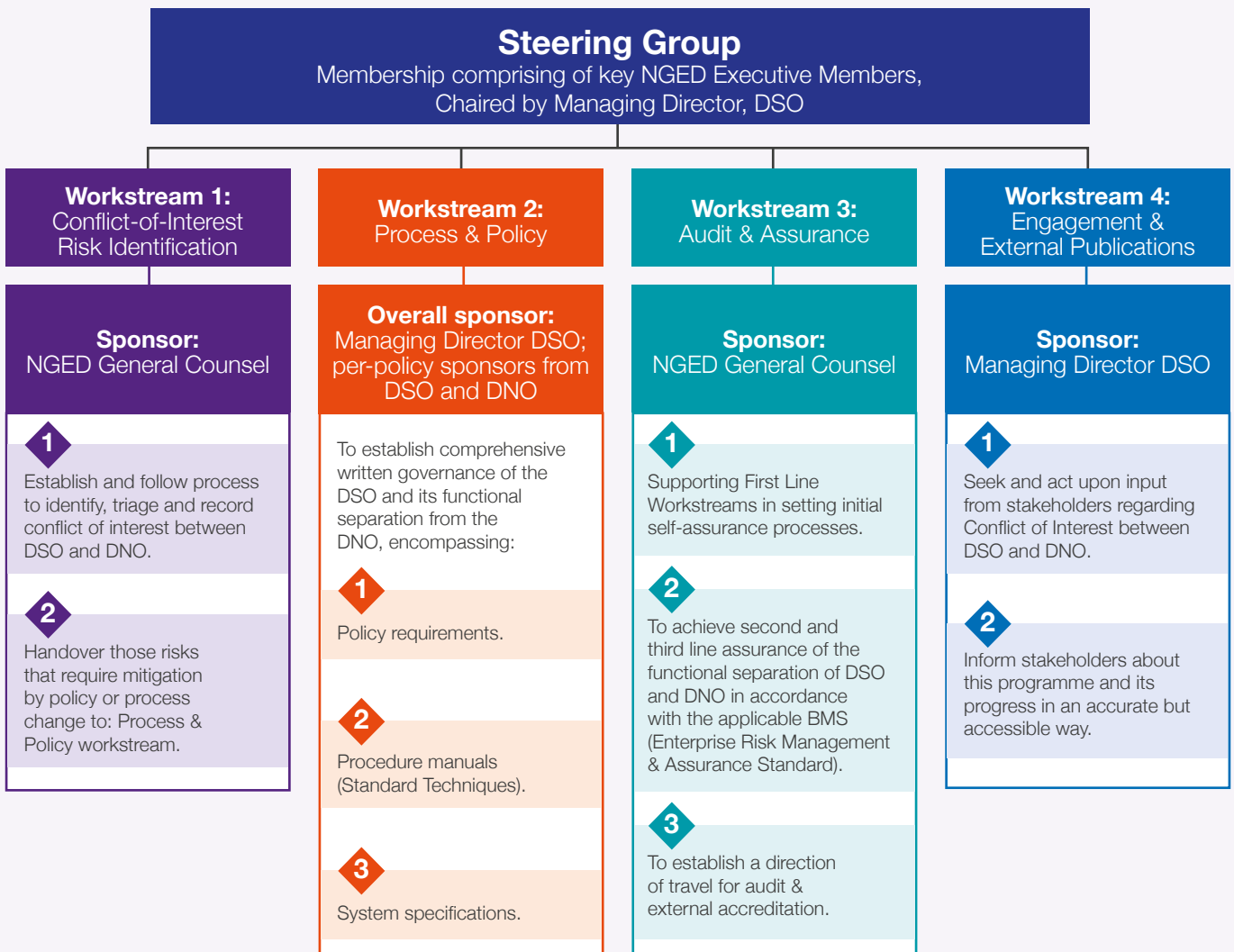
¹⁰National Grid DSO Performance Metrics nationalgrid.co.uk/dso/dso-performance-metrics

The Functional Separation Steering Group

In order to accelerate the embedding of Functional Separation and development of appropriate policies and processes we launched the DSO-DNO Functional Separation Steering Group in December 2024.

The group provides executive-level oversight of the development of appropriate Functional Separation governance. It contains both senior DSO and DNO Directors and is chaired by the Managing Director of the DSO.

It supports the DSO in implementing and socialising the control measures required. This provides greater internal traction at all levels of the organisation to arrive at the decisions required to appropriately implement our DSO-DNO processes. We arranged the programme into four workstreams to support us in reaching our goals faster.



Conflicts of interest

A crucial part of how we mitigate the risk of a Conflict of Interest between the DSO and DNO is through Functional Separation. Electricity distribution licensees have various interests, some of which are specific to DSO or DNO. The DSO interests and DNO interests are not fundamentally opposed to each other, but in some cases they can conflict.

One way this may arise is when these two drivers come into conflict on how to best manage future constraints.

A constraint usually will mean that the demand for power on a section of our network will grow beyond the capacity

of the existing infrastructure, which we can identify in our data-driven models. We constantly monitor for constraints across our network to ensure we proactively identify and mitigate future risks to the supply of power to homes and businesses.

Constraint identified	
<p>DSO incentivised to:</p> <ul style="list-style-type: none"> • utilise distribution flexibility services when it is cheaper than building new infrastructure. • this is more cost effective for customers. 'Flexibility First.' 	<p>DNO incentivised to:</p> <ul style="list-style-type: none"> • reinforce the network through building or upgrading assets. • this provides long-term income for the DNO through an increased value of the assets owned.

We publish the DSO's recommended response to a constraint in the **Distribution Network Options Assessment (DNOA)**¹¹. In most decisions we take, there is a clear outcome which doesn't result in any disagreement between the DNO and DSO.

How we identify Conflicts of Interest

Conflicts of Interest can be identified in three ways:

- 'Top down' by Management whereby we have proactively identified where a Conflict of Interest may arise
- by stakeholders looking at our DSO/DNO from the outside. At our Stakeholder event in January 2024, a theme emerged that there were concerns that pursuit of flexible solutions would impact security of supply – we have therefore outlined our processes for transparency

- those which arise through the day-to-day operation of our processes. Where a potential conflict is encountered, it is raised with the relevant department head.

Regardless of how they arise, all of our Conflicts of Interest are captured within our Conflicts of Interest register, which sits underneath our main DSO risk register.

Over the next 12 months, we will introduce e-learning for all staff to increase awareness of DSO-DNO conflicts across NGED.

¹¹National Grid DSO Distribution Network Options Assessment:

nationalgrid.co.uk/dso/distribution-future-energy-scenarios/distribution-network-options-assessment

General conflict resolution framework

As the DSO develops its functions and processes, the DSO and the DNO may disagree on where responsibility lies for a particular piece of work, or how to proceed based on its own incentive drivers.

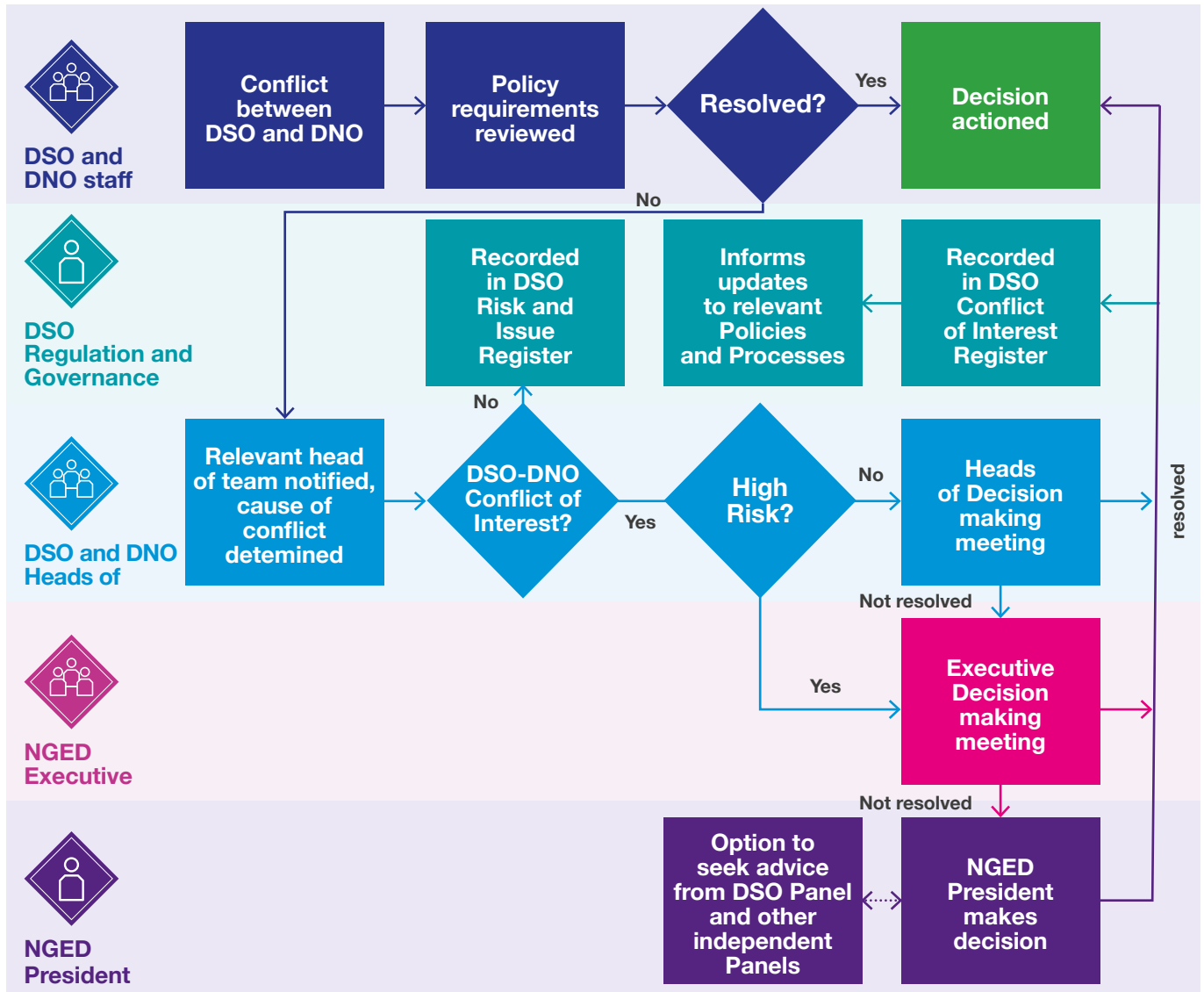
Usually, any issues will be resolved at an operational level, based on the evolving procedural frameworks and decision-making processes we have set out in this publication and other policies we have referenced. To address this, we established a process to escalate such

disagreements to lead to a clear decision and potentially change in policy.

This process may also be used where decisions appear to propose significant risks to either DSO or DNO obligations, or there are other issues which require high-level strategic consideration.

The NGED executive, as the overall distribution licence holder, will provide decision making at strategic level on issues of potential conflict.

DSO-DNO conflict resolution framework



A real-world example of a Conflict of Interest and how we resolved it.

A constraint was identified on our network in South Devon where the DSO and DNO disagreed on how it should be resolved. It was identified that the amount of power flowing through the wires in a specific area would exceed the rated capacity reducing safety and reliability. The DSO had to consider the following in this example:

- the capacity for new connections was limited due to the supply chain, and there was a pipeline of other connections to consider for delivery over the next three to five years.

- the overall investment required versus the timeline of when additional capacity would be needed.
- network re-routing requirements for the duration of the work to protect security of supply to consumers.

Based on the information, we arrived at two equally viable options.

The preference of the DNO was to reinforce the cables across the region (Option 1). By contrast, the DSO preferred Splitting the network (Option 2) as it is incentivised to reduce upfront costs and make better use of flexibility.

Trade-off	Option 1: Maintain Parallel Network	Option 2: Split Network	Customer Considerations	Network Considerations
Cost	Higher Cost	Lower cost	Focus on any short-term cost rises	Allowances need to be allocated based on priority
Network Reliability	Better supply security	Higher risk in N-2 outages, restored quickly	Customers expect seamless service. Short, well managed interruptions less impactful	Prioritises reliability and resilience
Operational Complexity	More complex	Simplified network	Small increase in operational cost to hit bills	Complexity increases resilience, but harder to manage.
Timing and Delivery	Longer timeline for major upgrades into 2028	Faster delivery, key upgrades by 2026	New connections seeking quicker access to new capacity	Longer delivery not an issue if effectively planned
Operational Flexibility	Less effective use of flexibility as greater volumes needed	Better use of flexibility services due to better sharing factors	Only sensitive to the related bill impacts	Aims to reduce the risk of network load exceeding ratings
Supply Resilience	Greater resilience from the start	Short-term risks, improved post-reinforcement	Prefer fewer outages	Prefer ability to take longer outages without customer impact
Future Growth Readiness	Ready for long-term growth but costly	Supports demand growth at lower costs	Expects network to be ready for demand and generation growth when needed	Balanced view of growth potential across all time horizons

As both options were deemed equally viable, it therefore created a Conflict of Interest between the DNO and DSO whereby no agreement was able to be reached within the policy. It therefore progressed into our Conflict Resolution process as defined above. In the example given in South Devon, the decision progressed to the NGED Executive team.

The outcome

We proceeded to split the network (Option 2) on the basis that it:

- was the most cost-effective option, therefore reducing the impact on customer bills
- was the most feasible solution in terms of delivery and alignment with future need, therefore providing security of future supply to customers
- ensured continuity with demand security and network integrity compliance – albeit with an associated increase in the lost load risk
- provided a simplified network for operations
- enabled the connection of new demand in line with our modelling data.

We published the DSO recommendation within our **Distribution Network Options Assessment (DNOA) Report**¹² and within the **2024 Network Development Plan**¹³.

We took our DSO Panel through this exercise at its meeting in October 2024. The Panel were supportive of our approach but challenged us to go further on our conflict resolution processes. They recommended that we better define the stages for escalation and emphasise their (and their DNO equivalent) strictly advisory role in any decision. This refined process is the one outlined within this document.

¹² Distribution Network Options Assessment (DNOA) – Abham to Totnes Tee (South Devon): nationalgrid.co.uk/downloads-view-reciteme/674177

¹³ Network Development Plan (NDP) 2024 (South Devon): nationalgrid.co.uk/dso/network-development-plan

DSO transparency and scrutiny

Risk, compliance and audit

Last year we set out an ambitious approach to audit and assurance which would align DSO with the broader National Grid Group risk management and compliance approach outlined below.

1

Business - first line

Risk management role:

Empowered and value-adding business operators who engage in risk taking as part of operational activities and management.

Risks:

Identifies, evaluates, quantifies, mitigates and reports risks.

Controls:

Establishes, implements and operates the majority of controls to mitigate those risks. Identifies, documents and implements actions to improve controls where required through self-assessment processes.

2

Business assurance - second line

Risk management role:

Experienced advisors who provide independent, objective and constructive challenge to the activities of the first line.

Risks:

Creates and manages the Risk Framework, against which the First Line identifies and manages risks.

Controls:

Creates and manages the control framework, which supports the implementation and operation of controls in the business. Also provides assurance over elements of the framework, in coordination with third line activities.

3

Internal audit - third line

Risk management role:

Providers of independent assurance on the overall design and operating effectiveness of the Risk Framework and its components.

Risks:

Provides independent assurance on the effectiveness of embedding the Risk Framework across the first and second lines.

Controls:

Provides independent assurance on the effectiveness of the control framework in the second line and control functions on the first line.

Assurance of our DSO processes and policies will ultimately be delivered through the National Grid “three lines” model for internal risk management and compliance. In order to give extra confidence when establishing the DSO, we committed in our Strategic Action Plan to have an external audit of our DSO policies.

In the last twelve months, we have taken stock of our progress on the governance journey and identified that we needed to adapt our timeline to prioritise full implementation of the “three lines” model. While we were following internally established processes, we had not formalised these within the DSO Policy structure in a format which we could be meaningfully challenged on.

We therefore included it as a specific workstream of the Functional Separation Programme. Through the Functional Separation Programme, we are taking a bottom-up approach to establish and prepare our Policy Suite for assurance using the three lines model.

In February 2025, the NGED Risk Team conducted a second line assurance review of the processes and DSO-DNO interactions across the Planning & Network Development policy. Being able to call on these resources is one of the benefits of National Grid DSO being a functionally separate directorate within NGED rather than a separate legal entity. The outputs of this will shape the wider establishment and refinement of our processes which will be assured using the three lines and then themselves be assured at an appropriate moment.

The Terms of Reference of our Independent DSO Panel sets out its role in setting the scope for an external audit of our key policies as required, and the outputs of our internal assurance work is shared with them for input and feedback.

DSO policy suite summaries

For completeness and transparency, the following pages contain a summary of our wider Policy suite and key details of where the DSO and DNO work together. Each of the policies listed here either implement or support the three core DSO roles, and these are highlighted on each page.

Ofgem has determined three core DSO roles

1 Planning and network development

2 Network operation

3 Market development

Policy Directive DSO3: Electrical Modelling and Analysis



This Policy establishes how we hold and use our modelling data.

National Grid DSO maintains ‘offline’ models of NGED’s Primary Distribution System (33kV, 66kV and 132kV) and Secondary Distribution System (6.6kV and 11kV) reflecting the permanently installed (“commissioned”) network, and planned (“committed”) network which includes where: a connection offer has been accepted; reinforcement agreed by DSO System Planning; and asset replacement and network expansion is approved. The offline model supports the work of all three of our core DSO roles.

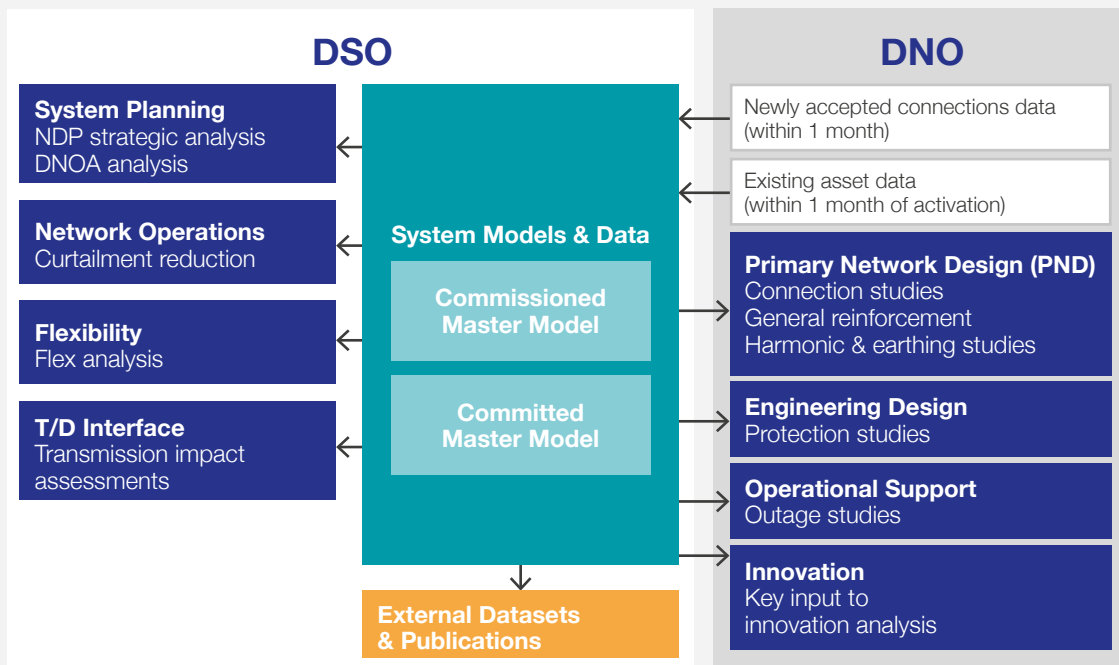
We also use ‘online’ models which reflect the commissioned network as defined above in near-real time, inclusive of any modifiers including temporary connections; outages; running arrangements and loading. The online model is updated within minutes of changes and is used to inform the active management of our network.

Key DSO-DNO interfaces

The NGED Asset Management directorate provides the data necessary to model newly commissioned assets within one month. The NGED Field Operations directorate provides data necessary to model newly accepted connection offers within one month. This ensures that the models that we base our decisions on remain accurate and up to date.

The models and data maintained by the System Models and Data team are used by the DSO as part of our System Planning process to ensure we have an accurate view of the existing and future network, and this is outlined on the next page.

In addition, they are used by our colleagues in the DNO for a wide range of studies including: connection, general reinforcement, harmonic and earthing, protection, and outages. They are also used extensively by the innovation team.



Policy Directive DSO4: Planning & Network Development (previously Distribution System Planning)

Implements DSO role 1 

The Planning & Network Development Policy implements role 1 of the core DSO roles and responsibilities as defined by Ofgem. The Policy outlines the process through which the DSO interacts with the general reinforcement activity of NGED and outlines how the DSO and DNO teams work together as part of the wider development of the network.

This process directly impacts how we arrive at decisions related to maintaining safe, reliable operation of our network where constraints are identified.

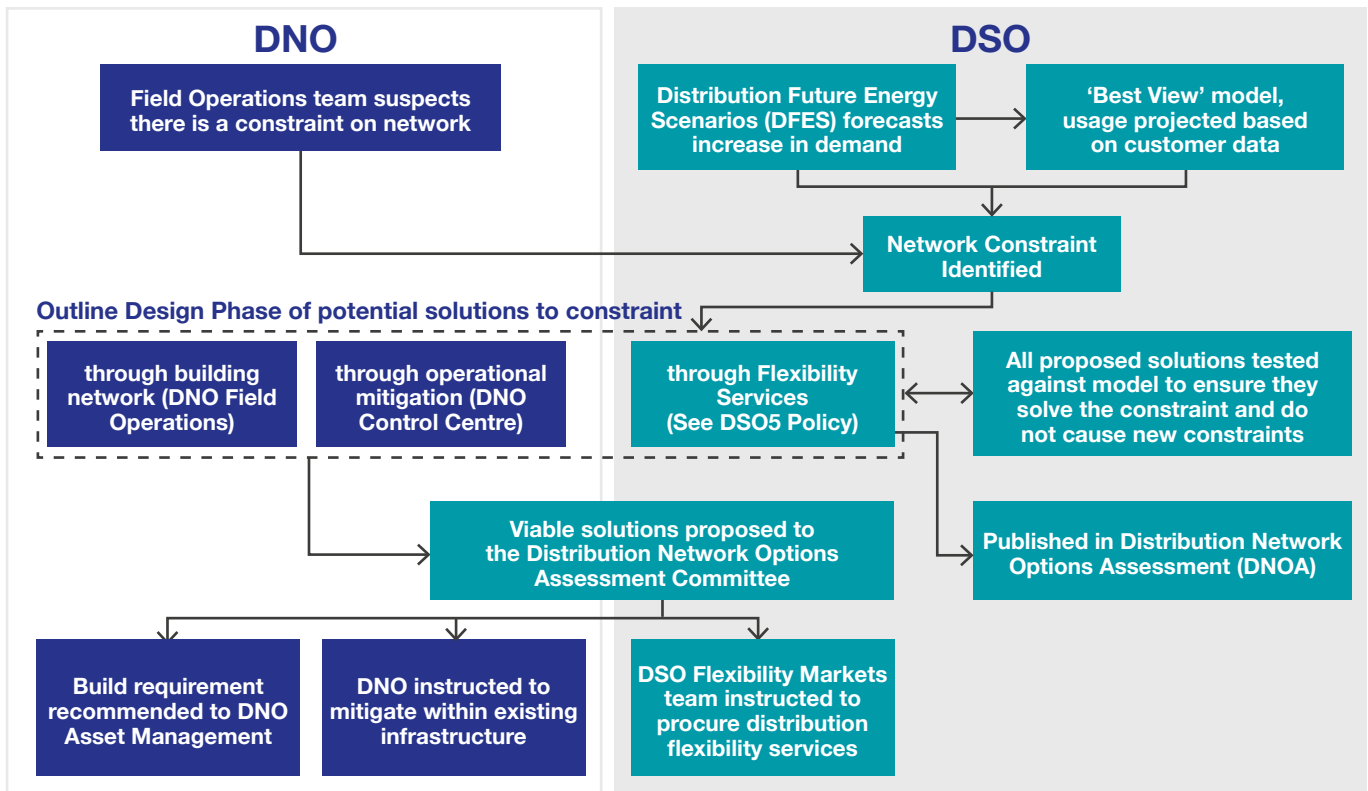
The DSO forecasts future changes in customers' electrical needs, then applies these forecasts to detailed network models to identify constraints. The DSO selects between network reinforcement, flexibility services and other possible solutions through objective cost-benefit analysis. Decisions are made by the DSO-chaired Distribution Network Options Assessment (DNOA) committee, which has expert representation from the DNO.

Where the DNOA committee chooses network reinforcement, they set requirements to the DNO's Asset Management team, who optimise NGED's network build plan across reinforcement, customer connections, asset condition and other drivers. For the assurance of stakeholders, we publish:

- **Distribution Future Energy Scenarios (DFES)**¹⁴ showing how customers' electrical needs could change in future
- a ten-year plan for the network in our **Network Development Plan (NDP)**¹⁵, and
- network reinforcement decisions in our Distribution Network Options Assessment (DNOA).

Within our processes, the DSO must approve the booking of any projects to the load-related expenditure budget for general reinforcement. This ensures that flexibility services and other options are considered before proceeding to reinforcement and also ensures that other works such as for specific connections are not inappropriately socialised.

DSO4 Process



¹⁴ National Grid DSO Distribution Future Energy Scenarios: nationalgrid.co.uk/dso/distribution-future-energy-scenarios

¹⁵ Network Development Plan (2024): nationalgrid.co.uk/dso/network-development-plan

Policy Directive DSO5: Flexibility Market Development

Implements
DSO role 3



This policy establishes how the DSO can use Distribution Flexibility Services as an alternative to network reinforcement when following Policy Directive DSO4 (above) identifies a constraint on our network.

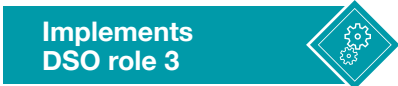
The DSO designs, develops and utilises markets for Distribution Flexibility Services to support the reliable and economic management of network risk; and engages with market providers to support their participation in such markets.

This process is owned and conducted by the DSO and held within this policy.

The deployment of flexibility services is conducted through the Distribution System Operation Policy (DSO7) which is summarised on page 30.



Policy Directive DSO5: Flexibility Market Development

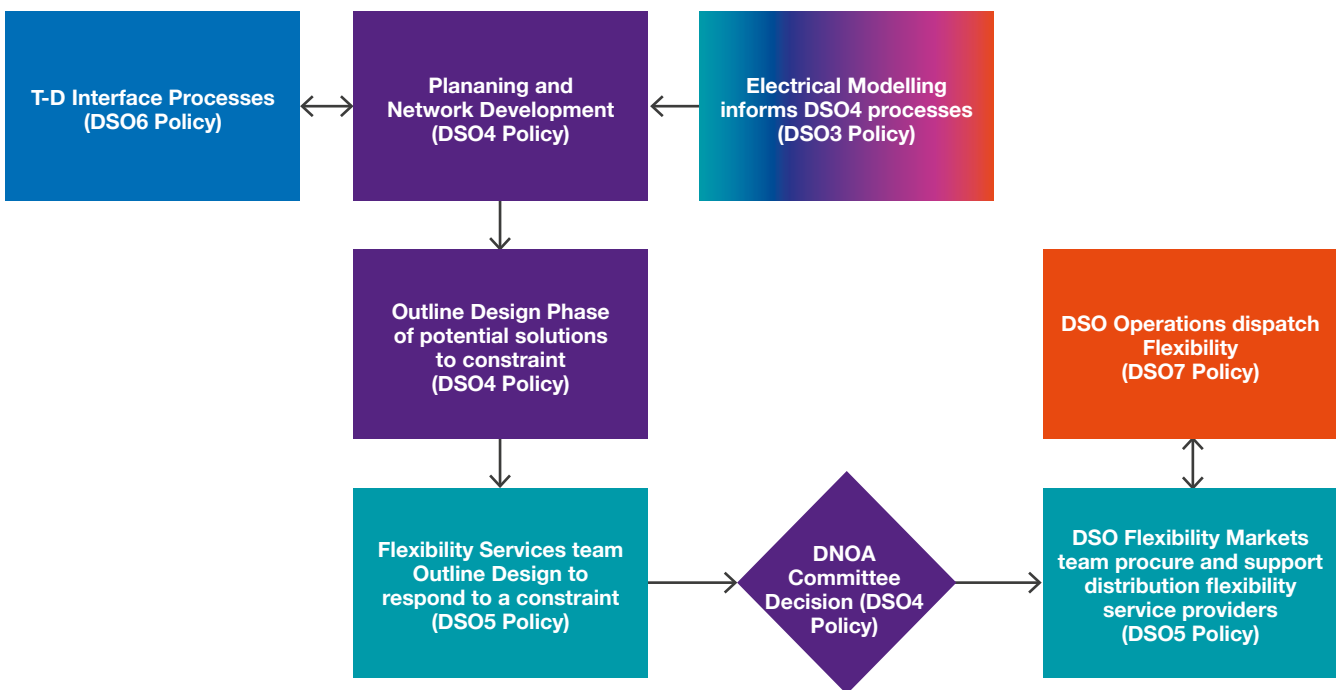


The Flexibility Market Development policy is broken down into five sections:

- Outline Design (Distribution Flexibility Services)** – detailing how the DSO Flexibility Markets team will propose a flexible solution to a constraint as identified in the Planning and Network Development policy. The team will estimate the amount of flexibility that will be required, assess potential solutions and consider what a fair market value would be to pay.
- Trade Acceptance and Rejection** – outlining the responsibilities of the DSO to collate potential flexibility providers and provide them to the DSO Operations team, or reject those where flexibility has not been selected as a solution.
- Settlement** – explaining the role of the team in confirming that a contract has been fulfilled, the payment of flexibility providers at a fair market rate, and inputting data back to the System Models and Data processes.
- Flexibility Service Provider Onboarding and Lifecycle Management** – the team is responsible for providing support to flexibility providers as required throughout their involvement, and ensuring the service they provide is fully documented.
- Flexibility Governance** – to ensure costs are forecasted appropriately and to measure the performance of our Flexibility Markets. For transparency and assurance, we have Key Performance Indicators and targets regarding the use of flexible solutions which the team report on. **Our KPIs are published quarterly.**¹⁶

The DSO maintains a Market Gateway and Flexible Power platforms which provides flexibility providers with full lifecycle support to submit bids where we have identified a constraint to be mitigated using flexibility.

How our policies interact



¹⁶ DSO Performance Metrics: nationalgrid.co.uk/dso/dso-performance-metrics

Policy Directive DSO6: Transmission-Distribution Interface Coordination

Additional DSO role; Supports role 1



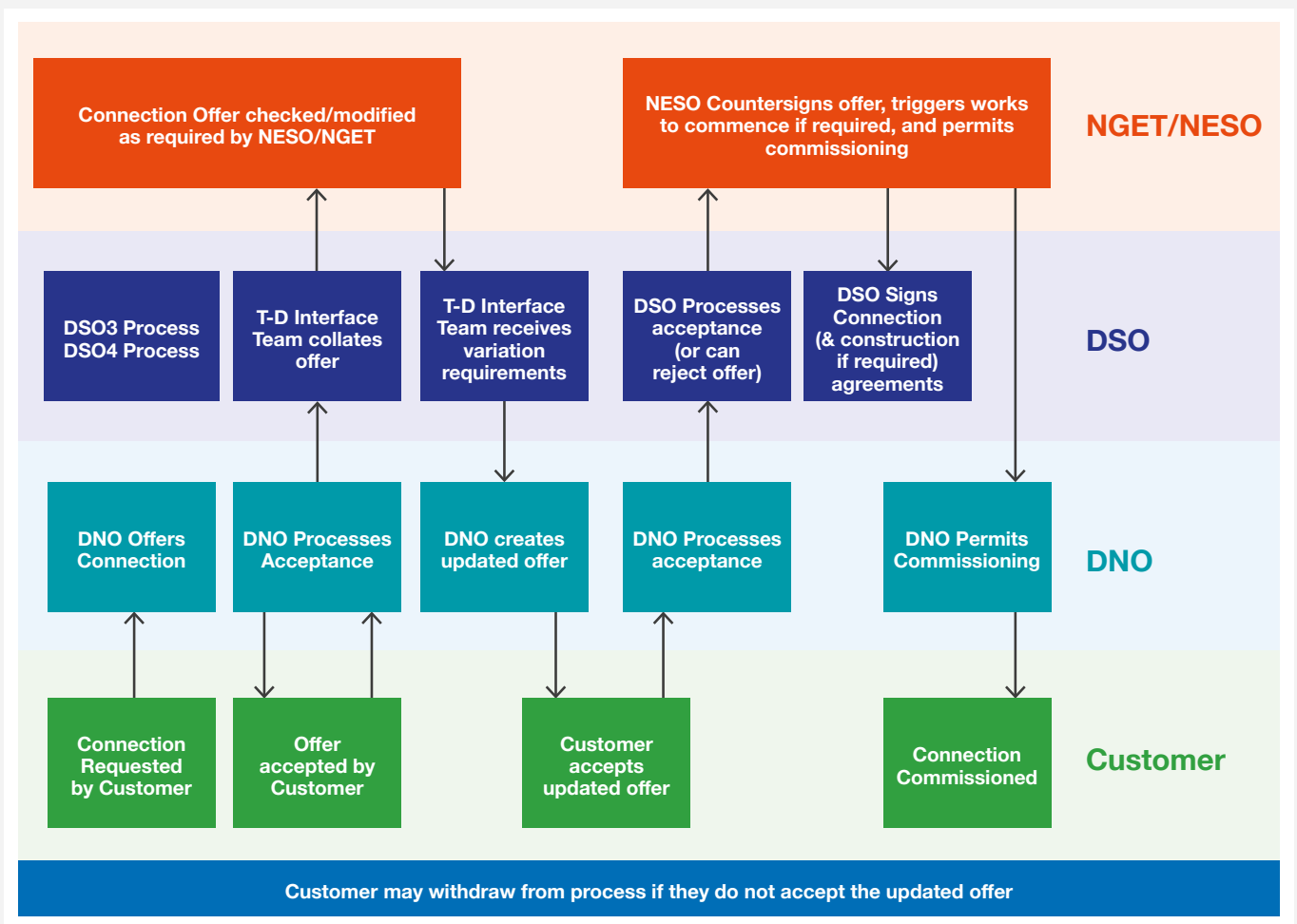
This policy outlines how the DSO coordinates the transfer of regulatory and connections triggered information across the Transmission and Distribution (T-D) boundary.

This includes how we work with the National Energy System Operator (NESO) and National Grid Electricity Transmission (NGET) to ensure efficient outcomes across the T-D boundary and communicating this across NGED so customers can be informed.

Key DSO-DNO interfaces

The T-D Interface acts as one of the main coordination functions between the DSO, DNO, National Grid Energy Transmission, and the National Energy System Operator. We support customers requesting connections which require the input of all parts of the energy network, including the DSO, DNO, NESO and NGET. The diagram below outlines the high-level workflow of how a customer connection request will progress.

The DSO role within this process is to initially model how the customer connection request will impact on the existing and future network, as outlined in the policies on previous pages.



Policy Directive DS07: Distribution System Operations



This Policy outlines how the DSO works with the DNO to: promote operational network visibility and data availability; and facilitate efficient dispatch of distribution flexibility services. These are defined as role 2 of a DSO within the Ofgem RIIO-ED2 DSO incentive.

The rollout of distributed generation, electricity storage and low-carbon technologies is increasing the utilisation of electricity distribution networks.

Flexibility Services and Curtailment are being used to manage customer behaviour within network capability.

While Flexibility Services and Curtailment can improve the efficiency and economy of the distribution system, they require coordination.

Curtailment is where energy usage or generation is reduced in response to supply constraints or to maintain system reliability.

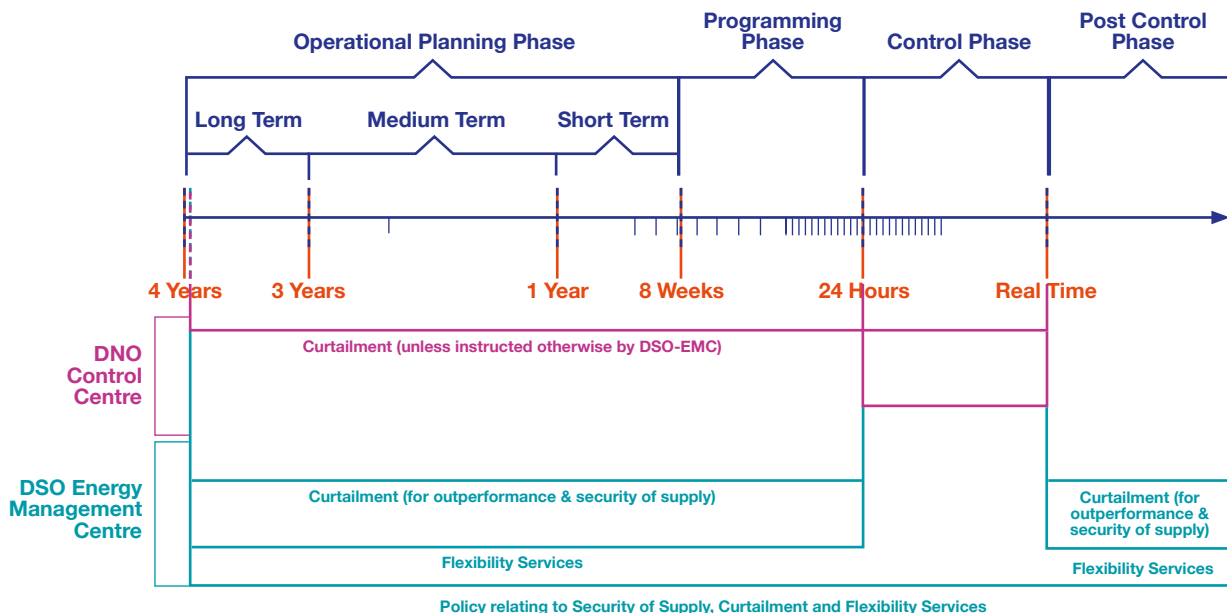
Key DSO-DNO Interactions

The Policy sets out that the DSO Energy Management Centre is responsible for Security of Supply, Curtailment and Flexibility Services across the Operational Planning Phase; Programming Phase; Control Phase and Post-Control Phase of the Distribution System. It also sets out that the DSO is responsible for curtailment across these phases where it identifies an opportunity to improve NGED’s overall curtailment performance, or where it identifies a risk to security of energy supply.

The DSO Energy Management Centre does not dispatch Flexibility Services or Curtailment in the Control Phase without the agreement of the DNO Control Centre.

The DSO Energy Management Centre may also instruct the DNO Control Centre to restrict or alter running arrangements and post-fault contingencies where this is necessary to ensure the efficacy of Flexibility Services.

The remit for the Operational Control of NGED’s distribution system is split between the DSO and DNO as outlined in this diagram.



This process is outlined in detail within our **Operational Decision Making Document**¹⁷, published in January 2025.

¹⁷ National Grid DSO Operational Decision Making Framework: nationalgrid.co.uk/downloads-view-reciteme/685630

Next steps

This document sets out the progress we have made in the last twelve months to functionally separate our DSO from the wider DNO. This remains an ongoing process, and our approach to Functional Separation and wider Policy Suite will continue to evolve through regular challenge from our DSO Panel, Stakeholders, and the Functional Separation Steering Group.

Over the course of the next year, we will continue to embed these processes within the NGED Business and assure ourselves using the National Grid assurance processes. We will review this document and update it as required to reflect any changes to our governance.

As we roll out our new Branding and DSO-DNO Functional Separation Arrangement Document, we are looking to further highlight National Grid DSO's position to ensure stakeholders always know what part of the organisation is responsible for the network, and to continue to improve how we communicate this.

We will continue to seek stakeholder views on all of this as we develop and evolve ways of working for the new functions as National Grid DSO.



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