

# Electricity Distribution

March 2025

# DSO-DNO Functional Separation Arrangement

nationalgrid ▶ DSO



## Purpose and Understanding

This memorandum of understanding sets out the day-to-day working arrangements for the functional separation of the National Grid Electricity Distribution System Operator (DSO) from the wider National Grid Electricity Distribution Network Operator (DNO).

Ofgem introduced the DSO incentive<sup>1</sup> as part of the RIIO-ED2 regulatory period to encourage DNOs to develop and operate their networks more efficiently, considering flexible alternatives to network reinforcement.

National Grid Electricity Distribution (NGED) established the National Grid DSO as a functionally separate directorate to achieve these objectives while retaining DSO functions within the NGED licence. This approach strikes an optimal balance across the following key aims:

- Mitigating potential or perceived conflicts of interest between DNO and DSO functions.
- Enhancing transparency in decision-making.
- Reducing costs for consumers through:
  - The sharing of data, knowledge, and services between DNO and DSO functions.
  - Enabling strategic decision-making regarding the use of flexibility, where a DNO might otherwise pursue traditional network reinforcement.

This memorandum of understanding represents a commitment by our DSO and DNO to uphold the principles of functional separation throughout the RIIO-ED2 regulatory period, ensuring that these objectives are met.

Our Independent DSO Panel has recommended that we improve how we communicate our policies externally to promote transparency. To provide clarity and assurance to customers and stakeholders, the policies underpinning functional separation are summarised in our published Guide to Governance<sup>2</sup>, an accessible summary of NGED's DSO Policy Suite<sup>3</sup>. For transparency, our Policy Suite and approach to Operational Decision Making are also published<sup>4</sup>.

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<sup>1</sup> Ofgem RIIO-ED2 DSO Incentive <https://www.ofgem.gov.uk/consultation/riio-ed2-dso-incentive-governance-document-consultation>

<sup>2</sup> DSO-DNO Guide to Governance (March 2025) <https://www.nationalgrid.co.uk/dso>

<sup>3</sup> DSO Policy Suite <https://www.nationalgrid.co.uk/dso>

<sup>4</sup> Operational Decision Making Framework <https://www.nationalgrid.co.uk/downloads-view-reciteme/685630>



## DSO Responsibilities

For the purposes of this document, the DSO refers to the functionally separate directorate within NGED responsible for delivering the activities defined in Table 1 of the DSO Incentive Governance Document under the RII0-ED2 price control. These activities include:

### Role 1: Planning and Network Development

- Efficient planning within an environment of uncertainty, considering whole-system outcomes and promoting planning data availability.

### Role 2: Network Operation

- Promoting operational network visibility and data availability.
- Facilitating the efficient dispatch of distribution flexibility services.

### Role 3: Market Development

- Providing accurate, user-friendly, and comprehensive market information.
- Embedding simple, fair, and transparent rules and processes for procuring distribution flexibility services.

In addition, the DSO leads other activities that support both DSO and DNO roles. While not mandated by Ofgem as DSO-specific, these functions offer the best value to customers by leveraging DSO technical expertise to support customers and NGED's wider business objectives. These include:

- **Provision of network models and analysis tools to support DNO activities related to connections and outage planning**
  - **Benefit:** Reduces DNO costs (and therefore customer costs) by ensuring a single, consistent network model across NGED.
- **Transmission-distribution interface management analysis to support the Statement of Works process**
  - **Benefit:** Strengthens coordination with the National Energy System Operator (NESO) to maximise generation export capacity at transmission-distribution interfaces. This aligns with our strategic planning to balance demand and generation efficiently.
  - The Transmission Impact Assessment also utilises DSO network model data, reducing costs associated with multiple data models.

National Grid DSO has set out its objectives in consultation with stakeholders, and these are set out within our DSO Strategic Action Plan<sup>5</sup>.

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<sup>5</sup> DSO Strategic Action Plan (March 2024) <https://www.nationalgrid.co.uk/downloads-view-reciteme/660508>

## DNO Responsibilities

For the purposes of this document, the DNO refers to the remainder of NGED, responsible for network operations as defined in its Electricity Distribution Licence. The wider priorities for NGED during RIIO-ED2 are detailed in its RIIO-ED2 business plan<sup>6</sup>.

The DNO is responsible for all activities not undertaken by the DSO in distributing electricity through its networks, including customer connections. This includes:

- Maintaining and replacing equipment so that the network remains reliable.
- Operating and protecting our 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.

## Transparency in the Distribution Network Options Assessment

A key element of our approach to functional separation is our Planning and Network Development process. Through this, the DSO identifies constraints and recommends general reinforcement activity for the DNO.

The DSO forecasts future customer electricity needs, applies these forecasts to network models, and identifies constraints. It then makes a recommendation on how to resolve constraints—whether through network reinforcement, flexibility services, or another cost-effective solution.

Decisions are made by the DSO-chaired DNOA committee, which includes expert representation from the DNO. Where reinforcement is selected, the DNO's Asset Management team optimises the network build plan, balancing reinforcement, customer connections, and asset condition needs. For the assurance of stakeholders, we publish:

- Distribution Future Energy Scenarios (DFES) showing how customers' electrical needs could change in future.
- A ten-year plan for the network in our Network Development Plan (NDP).<sup>7</sup>
- Network reinforcement decisions in our DNOA.

The DSO also holds NGED's load-related expenditure budget for general reinforcement, ensuring that flexibility services and alternative solutions are considered before opting for reinforcement.

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<sup>6</sup> National Grid Energy Distribution RIIO-ED2 Business Plan Commitments Document - <https://yourpowerfuture.nationalgrid.co.uk/downloads-view/42454>

<sup>7</sup> Network Development Plan (2024) <https://www.nationalgrid.co.uk/dso/network-development-plan>

## Shared Functions

As a functionally separate part of NGED, the DSO benefits from existing back-office functions without passing additional costs onto customers. These functions include:

- Finance, including financial advice and services. The DSO is treated as a separate business unit within NGED, and costs of the DSO function are reported separately.
- Regulation.
- Legal services.
- Human Resources including recruitment.
- Information Technology systems and support.
- Procurement of goods and services, contract management.
- An overarching Corporate Strategy which:
  - provides expertise and skills to facilitate development of strategy within NGED; and
  - supports alignment of DNO and DSO strategy across the group.
- Regulatory Strategy provides support in understanding and addressing regulatory changes where they relate to new roles, or institutions or changes in regulatory governance. The DSO also retains a dedicated resource within the directorate to support this.

## Commitments

Close collaboration between the DSO and DNO is fundamental to the safe and secure operation of the electricity network and to facilitate the transition to a decarbonised energy network. This memorandum of understanding reflects a shared commitment across our service areas to work transparently to deliver a functionally separate DSO.

To achieve this, the **DSO** commits to:

- Working transparently with the DNO to proactively identify and properly manage areas of potential DSO-DNO conflicts of interest.
- Maintaining its independent DSO Panel. The DSO Panel was formally established in March 2024 to provide independent advice and oversight of the DSO. The DSO further commits to a transparent working relationship with the DSO Panel in which its recommendations are fully considered, and to publish a summary of Panel outputs on its website
- Actively consulting with our stakeholders and developing work plans based on their feedback.
- Collaborating openly with the DNO on areas of mutual interest and potential benefits to customers.
- Ensuring ongoing compliance with license obligations.

The **DNO** commits to:

- Acknowledging and supporting the development of separate operating procedures by the DSO in the areas defined by Ofgem for the duration of the RIIO-ED2 price control, and review these arrangements as part of future price control planning processes.
- Working transparently with the DSO to proactively identify and properly manage areas of potential DSO-DNO conflicts of interest.
- Escalating potential conflicts of interest through the process set out by the DSO.
- Collaborating openly with the DSO on areas of mutual interest and potential benefits to customers.
- Ensuring ongoing compliance with license obligations.

By executing this memorandum of understanding, NGED evidences its commitment to upholding Functional Separation as detailed in the DSO Policy Suite and Guide to Governance. In doing so, NGED affirms its commitment to ensuring that the DSO has the operational independence it needs to manage and organise itself to effectively deliver its roles and objectives.



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Cordi O'Hara  
President of NGED *On  
behalf of the DNO*



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Cathy McClay  
Managing Director DSO



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Paul Branston Director  
of Regulation, NGED

Signed on: 11 March 2025



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