

# Consultation

**Distribution System Operation Incentive Governance Document** 

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#### **Overview:**

We are consulting on our proposed Distribution System Operation (DSO) Incentive Governance Document, to gather views and feedback. Our intention is for this document to come into effect at the start of RIIO-ED2.

This document is directed at electricity distribution network companies as well as their stakeholders. The purpose of this document is to set out the processes and requirements involved in the DSO incentive. It defines the processes and criteria used to assess performance; the reporting requirements; and the methodology we will use to determine an incentive reward or penalty.

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### **Associated documents**

Electricity Distribution Licence – Special Condition 4.8 (Distribution System Operation output delivery incentive): <a href="https://epr.ofgem.gov.uk/Document">https://epr.ofgem.gov.uk/Document</a>

RIIO-ED2 Final Determinations – Core Methodology Document, Chapter 4, Regulating Distribution System Operation functions: [LINK TO BE ADDED POST PUBLICATION]

Electricity Distribution Standard Licence Condition 31E – Procurement and Use of Flexibility Reporting Guidance: <a href="https://www.ofgem.gov.uk/publications/decision-procurement-and-use-flexibility-reporting-guidance-electricity-distribution-licensees-0">https://www.ofgem.gov.uk/publications/decision-procurement-and-use-flexibility-reporting-guidance-electricity-distribution-licensees-0</a>

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#### 1. Introduction

### **Purpose of this incentive**

- 1.1. The aim of the Distribution System Operation (DSO) incentive is to drive Distribution Network Operators (DNOs) to more efficiently develop and use their network, taking into account flexible alternatives to network reinforcement.
- 1.2. For the purposes of this document, Distribution System Operation is defined as the engagements undertaken by the DNO pursuant to the operation of the Distribution System, being planning and network development, network operation and market development of the Distribution System as set out in Appendix 1.
- 1.3. Specifically, the DSO incentive framework is intended to evaluate performance against the Baseline expectations for DSO that are set out in Appendix 1 (and which were originally set out in our Business Plan Guidance¹) as well as the associated delivery of DSO benefits that emanate from these activities. It leverages the opportunities to embed robust performance measures, capture stakeholder views and incorporate a more holistic assessment from a performance panel of technical and industry experts. See Chapter 2 for further information.

## **Purpose of this document**

- 1.4. This DSO Incentive Governance Document sets out the processes and requirements involved in the DSO incentive. In particular, it defines the processes and criteria used to assess a DNO's performance for the purposes of the DSO incentive; the reporting requirements placed on DNOs; and the methodology we will use to determine an incentive reward or penalty.
- 1.5. The DSO Incentive Governance Document is issued by Ofgem under Part [I] of Special Condition [4.8] (Distribution System Operation output delivery incentive) of the distribution licence. As set out in Special Condition [4.8.22], we may make

<sup>&</sup>lt;sup>1</sup> RIIO-ED2 Business Plan Guidance, Appendix 4.

provision about the governance of the output delivery incentive in the DSO Incentive Governance Document, including:

- the criteria against which the performance of the licensee will be assessed;
- the process and procedures that will be in place for assessing the performance of the licensee;
- the requirements the licensee must fulfil as part of the assessment process, including the information the licensee must provide to determine the value of the DSO Stakeholder Satisfaction Survey and Outturn Performance Metrics components<sup>2</sup> of the DSO Incentive;
- the licensee's attendance at DSO Performance Panel meetings;
- the information used for the performance assessment, including how reporting will be used in that evaluation;
- the role of the DSO Performance Panel;
- the manner and process by which the licensee's DSO Performance Panel Submission will be used by the Authority to determine the value of the DSO Performance Panel assessment component<sup>3</sup> of the DSO Incentive; and
- the appointment, by the Authority, of persons who will make up the DSO Performance Panel.
- 1.6. This document may be revised and reissued in accordance with Part [A] of Special Condition [1.3].

## **Compliance**

- 1.7. Licensees are required to comply with the provisions of the DSO Incentive Governance Document, as if it were a condition of their licence. However, we have also attempted to make this document accessible and informative to a range of stakeholders.
- 1.8. For the avoidance of doubt, this document is subordinate to the licence. This document does not change any definition or obligations contained within the

 $<sup>^2</sup>$  These correspond to: the DSO Stakeholder Satisfaction Survey term (DSOS<sub>t</sub>), the Flexibility Market Testing Outturn Performance Metric term (FT<sub>t</sub>), the Network Visibility Outturn Performance Metric term (NV<sub>t</sub>) and the Curtailment Efficiency Outturn Performance Metric (CE<sub>t</sub>) terms as defined in Special Condition [4.8].  $^3$  This corresponds to the DSO Performance Panel assessment term (DSOP<sub>t</sub>) as defined in Special Condition

<sup>[4.8].</sup> 

licence and in the event of any ambiguity over the DSO Incentive Governance Document, the licence will take precedence.

#### 2. DSO incentive framework

#### The DSO roles framework

2.1. As outlined in paragraph 1.3, the DSO incentive framework is intended to evaluate performance against the Baseline expectations for DSO as well as the associated delivery of DSO benefits that emanate from these activities. The DSO Baseline expectations are set out in full in Appendix 1 and correspond to the three DSO roles and five DSO activities set out in Table 1 below. The DSO roles and Baseline expectations underpin the design of the DSO incentive framework.

Table 1: DSO roles and activities

Role	Activity
Role 1: Planning and network development	1.1. Plan efficiently in the context of uncertainty, taking account of whole system outcomes, and promote planning data availability.
Role 2: Network	2.1. Promote operational network visibility and data availability
operation	2.2. Facilitate efficient dispatch of distribution flexibility services
Role 3: Market	3.1. Provide accurate, user-friendly and comprehensive market information
development	3.2. Embed simple, fair and transparent rules and processes for procuring distribution flexibility services

#### The DSO incentive Evaluation criteria

- 2.2. The DSO incentive is made up of three Evaluation criteria, weighted as per Table 2 below. These are:
  - The DSO Stakeholder Satisfaction Survey, which intends to drive companies to become more responsive to their stakeholders' needs and improve service levels;
  - The DSO Performance Panel assessment that helps to reduce the information asymmetry between DNOs and Ofgem, brings in additional expert views and provides industry with a platform to hold DNOs to account; and
  - The Outturn Performance Metrics, which facilitate comparison between DNOs and performance tracking over time against a set of key outcomes.

2.3. Combined, these three Evaluation criteria are intended to capture stakeholder views, incorporate a more holistic assessment from a performance panel of technical and industry experts, and embed robust performance measures. Further information on each of the Evaluation criteria can be found in Chapters 3, 4 and 5.

**Table 2: DSO incentive Evaluation criteria weightings** 

Evaluation criteria	% of total incentive value
DSO Stakeholder Satisfaction Survey	40%
DSO Performance Panel assessment	40%
Outturn Performance Metrics	20%

### Reporting cycle

- 2.4. Below we provide an overview of the reporting cycle for the DSO incentive in RIIO-ED2. For each Regulatory year, starting 1 April 2024, the steps are as follows:
  - By 30 April: DNO publishes its DSO Performance Panel Submission (see Chapter 7)
  - 10 days ahead of the DSO Performance Panel session: supplementary questions sent to DNO
  - June/July: DSO Performance Panel sessions (see Chapter 4)
  - By 31 July: outturn metric performance, and DSO Stakeholder Satisfaction Survey results submitted as part of the [Distribution System Operation Regulatory Reporting Pack] (see Chapters 3 and 4)
  - By 30 September: Ofgem publishes the DSO Incentive Report (see Chapter
     7)

### 3. DSO Stakeholder Satisfaction Survey

- 3.1. Proactive stakeholder engagement is necessary for efficient business practice. The aim of the DSO Stakeholder Satisfaction Survey criterion is to encourage DNOs to engage proactively with DSO Stakeholders on relevant issues, business activities and other developments in order to become more responsive to their stakeholders' needs and improve service levels. We expect that each DNO will use this feedback to inform their current business operations and in planning for future decision making.
- 3.2. For the purposes of the DSO incentive, DSO Stakeholders are defined as individuals or organisations that affect or can be affected by the DSO activities<sup>4</sup> of the DNO. They may have a direct or indirect interest in DSO activities, and their interaction could vary in frequency.
- 3.3. DSO Stakeholders range from customers through to flexibility market participants, local authorities and other system operators. The exact survey participants will be determined by a DSO Stakeholders contacts database. We expect DNOs to maintain up to date contact details of their DSO Stakeholders. Table 3 below includes examples of DSO Stakeholders and the questions that may be of relevance to them. This list is non-exhaustive.

Table 3: Stakeholder types that interact with DSO functions

	Most relevant survey questions				
Stakeholder type	Coordination		Flexibility market development	Decision making	Network planning
Distributed Generator	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Battery storage	✓	✓	✓	✓	✓
Industrial & Commercial consumers		<b>√</b>	<b>√</b>		√
Flexibility aggregator	<b>√</b>	<b>√</b>	✓	✓	✓
GB System Operator	✓	<b>√</b>	✓	✓	✓

<sup>&</sup>lt;sup>4</sup> The five DSO activities are set out in Table 1 above.

	Most relevant survey questions				
Stakeholder type	Coordination		Flexibility market development	Decision making	Network planning
Gas Distribution Networks	<b>√</b>	<b>√</b>			<b>√</b>
Local government	✓	✓			<b>√</b>

- 3.4. Each of the six DNO groups is required to commission a single survey from a common, independent and reputable market research company. Starting from 1 April 2024, the DSO Stakeholder Satisfaction Survey will be issued by no later than 30 April each year. Each DSO Stakeholder should complete the survey only once. The key aspects of the DSO Stakeholder Satisfaction Survey, including questions, research methods and the types of participants will be approved by Ofgem.
- 3.5. The DSO Stakeholder Satisfaction Survey will be undertaken online. It will be targeted at senior managers, decision makers and experts, and include a wide selection of relevant stakeholders who have had material interactions with DSO functions and services.
- 3.6. We expect DNOs to take a proactive approach to engaging with their DSO Stakeholders so as to drive up the response rate to the DSO Stakeholder Survey. At a minimum we will expect DNOs to send the survey to:
  - All the companies that have registered interest through a flexibility platform or participated in a local flexibility tender exercise in the DNO's licence area(s);
  - All the Local Authorities in the DNO's licence area(s);
  - All the Distributed Generators on the Embedded Capacity Register and/or with a non-firm (curtailable) connection agreement in the DNO's licence area(s); and
  - The GB System Operator.
- 3.7. The DSO Stakeholder Satisfaction Survey will measure satisfaction (on a scale from 1-10) for each of the questions set out in Table 10 in Appendix 2. The score used in Part [B] of Special Condition [4.8] is the average (mean) of all the scores provided by respondents. An example is provided in Table 11 in Appendix 2 for

clarity. In addition, respondents will have the opportunity to provide an unscored, free text answer (subject to a maximum word count) for each question such that DNOs can gain further insight to drive improvements in DSO performance. DNOs will have a common DSO Stakeholder Satisfaction Survey satisfaction target as set out in Part [B] of Special Condition [4.8], where the methodology for calculating a reward or penalty is also defined.

3.8. DNOs are required to submit their DSO Stakeholder Satisfaction Survey results in their Regulatory Reporting Pack (RRP). Specific requirements will be set out in the RIIO-ED2 Regulatory Instructions and Guidance (RIGs).

#### 4. DSO Performance Panel assessment

- 4.1. The DSO Performance Panel assessment criterion is underpinned by the following elements, which are explained in the remainder of this chapter:
  - A DSO Performance Panel, made up of independent experts and DSO Stakeholder representatives;
  - A DSO Performance Panel Submission, submitted each year by the DNO by
     30 April and relating to the previous Regulatory year;
  - A DSO Performance Panel session, where the DNO has an opportunity to present to, and field questions from, the DSO Performance Panel; and
  - A DSO Performance Panel score, which is based on an assessment against the DSO Performance Panel assessment criteria and the guidance set out in Appendix 4.

### **Purpose and role**

- 4.2. The DSO Performance Panel is an independent panel of experts and DSO Stakeholder representatives, who will have a role in challenging and evaluating DNOs' performance in RIIO-ED2 against the Baseline expectations for DSO. The DSO Performance Panel provides industry with a platform to hold the DNOs to account, adding greater transparency to the DSO incentive decision making process.
- 4.3. The DSO Performance Panel's performance evaluation will form a recommendation to Ofgem, who will review the available evidence to determine a financial penalty or reward for the DNO for the relevant Regulatory year, in accordance with Part [C] of Special Condition [4.8].

#### Membership and selection process

- 4.4. The DSO Performance Panel will be comprised of at least 4 voting members and a non-voting chair. DSO Performance Panel members will include a mix of independent experts and DSO Stakeholder representatives recruited by Ofgem.
- 4.5. The independent experts will be hired on merit through fair and open competition.

  The process will follow Ofgem's standard recruitment principles and appointed

members will receive suitable remuneration. For the DSO Stakeholder representatives, we will invite nominations from trade bodies, industry associations, consumer groups and other individuals who would be able to represent the views of a particular DSO Stakeholder group. The number of DSO Performance Panel members and balance of independent experts relative to DSO Stakeholder representatives will be determined by the quality of applications and nominations received. We will keep the membership of the DSO Performance Panel under review to ensure that it is able to function effectively.

- 4.6. The DSO Performance Panel Chair will be an Ofgem employee (Senior Civil Service level). We will keep these arrangements under review and consider whether it is appropriate to move to an independent Chair in the future once the DSO Performance Panel is more established.
- 4.7. Ofgem will act as secretariat for the DSO Performance Panel, with responsibility for coordinating with the panel members and the DNOs, organising the panel meetings, and preparing relevant papers and reports. The secretariat will take notes at each DSO Performance Panel meeting and prepare the relevant sections of the draft DSO Incentive Report (see paragraph 7.7). The draft will then be circulated to the DSO Performance Panel members for comments and modifications. Once the draft report is approved by all the DSO Performance Panel members, it will be submitted by the DSO Performance Panel to the Authority for consideration as part of its decision on rewards or penalties.
- 4.8. Prior to involvement with the DSO Performance Panel, members should ensure that there are no conflicts of interest that, in the opinion of a fair minded and well-informed observer, would suggest a real possibility of bias. If a DSO Performance Panel member has a direct or indirect interest which may be material or relevant, they will need to declare that interest to the secretariat who may refer the matter to the DSO Performance Panel Chair. DSO Performance Panel members will be expected to make every effort to represent the views of the industry as a whole and not any single organisation.
- 4.9. We expect to publish a working paper in Summer 2023 which will, amongst other things, invite voluntary nominations for industry representatives on the DSO Performance Panel.

### **DSO Performance Panel assessment processes**

#### **DSO Performance Panel Submission and session**

- 4.10. As set out in Part [H] of Special Condition [4.8], each DNO is required to prepare and publish an annual DSO Performance Panel Submission. DNOs should set out how DSO activities within the period supported the transition to a smarter, more flexible and digitally enabled local energy system. The DSO Performance Panel Submission is an opportunity for DNOs to explain how they meet the DSO Performance Panel assessment criteria. See Chapter 7 for further information on the DSO Performance Panel Submission.
- 4.11. We will also publish an annual call for evidence to request DSO Stakeholders' feedback on any areas of DNO performance with respect to the DSO Performance Panel assessment criteria that they wish to highlight. Ofgem will then publish non-confidential responses on our website and summarise the responses so that they are available to the DSO Performance Panel. This will act to reduce the information asymmetry between the DNOs and the DSO Performance Panel.
- 4.12. Each DNO will then have the opportunity to take part in a 40-minute DSO Performance Panel session. DNOs will be asked to give a 10-minute presentation as part of their DSO Performance Panel session. The presentation will be based on supplementary written questions provided by the DSO Performance Panel to the DNO, no later than 10 working days prior to the DSO Performance Panel session. The DSO Performance Panel will be able to ask a maximum of 6 written supplementary questions.
- 4.13. The presentation will be followed by a 30-minute question and answer session. During the DSO Performance Panel session, the DSO Performance Panel may ask additional questions to inform their assessment. Ofgem will perform a secretariat role at the DSO Performance Panel session. Additional information regarding the format of the presentations and question and answer sessions will be provided in advance of the supplementary written questions being received.
- 4.14. The DSO Performance Panel Submission and responses provided at the DSO Performance Panel session will form the basis of the DSO Performance Panel's performance evaluation.

#### **DSO Performance Panel assessment criteria**

4.15. The DSO Performance Panel will assess the DNOs against the DSO Performance Panel assessment criteria set out in Table 4. These are accorded different weights, which have been set in line with number of Baseline expectations that relate to the activity and their relative importance in delivering improved outcomes for network users. Guidance on how to interpret the criteria is set out in Appendix 4.

**Table 4: DSO Performance Panel assessment criteria and weightings** 

No.	DSO Performance Panel assessment criterion	Weighting
1.	Delivery of DSO benefits	30%
2.	Data and information provision	20%
3.	Flexibility market development	20%
4.	Options assessment and conflict of interest mitigation	20%
	Distributed energy resources (DER) dispatch decision marking framework	10%

- 4.16. We also expect DNOs to make reference, in their DSO Performance Panel Submission, to other publications where they have relevance to the DSO Performance Panel assessment criteria. These include:
  - The annual Distribution Flexibility Services Procurement Statement and the
    Distribution Flexibility Services Procurement Report they submit under
    Standard Licence Condition 31E in their DSO Performance Panel Submissions,
    which provide additional evidence on the flexibility the licensee DNO has
    tendered for, contracted and dispatched in the past 12 months;
    - The DNO' biennial Digitalisation Strategies and biannual Digitalisation Action Plans; and
    - The Regularly Reported Evidence (RRE) performance as defined in Appendix
       3.

## **DSO Performance Panel scoring guidance**

4.17. When a DNO clearly demonstrates that its performance against the DSO Performance Panel assessment criteria has gone beyond Baseline expectations (see Appendix 1), then this should be reflected in an incentive reward. Equally,

- where a DNO has clearly failed to demonstrate that it has taken the necessary actions against the DSO Performance Panel assessment criteria to meet Baseline expectations, then this should result in an incentive penalty.
- 4.18. Using the scoring reference points in Table 5 below, each DSO Performance Panel member will be asked to provide one score out of 10 for each DSO Performance Panel assessment criterion. An overall weighted average (mean) score will then be calculated based on the average (mean) of all DSO Performance Panel member scores for the criterion and the weight that is applied to that criterion. An illustrative worked example is provided in Table 18 in Appendix 5.

**Table 5: DSO Performance Panel scoring reference points** 

Score	1-2	3-4	5-6	7-8	9+
Description	Poor	Weak	Average	Good	Excellent
Relationship with DSO Baseline expectations	Below Baseline	e expectations	Meeting Baseline expectation		g Baseline cations

- 4.19. In reaching their scores, DSO Performance Panel members will be asked to assess performance in the round for each criterion considering the DSO Performance Panel Submission, the responses to the call for evidence, the presentation provided by the DNO at the DSO Performance Panel session and the answers provided to the question-and-answer session at the DSO Performance Panel session. The guidance set out in Appendix 4 provides a more detailed breakdown by DSO Performance Panel assessment criterion of performance expectations for each scoring reference point. This is intended to provide more clarity to DNOs and drive consistency across the DSO Performance Panel assessment process.
- 4.20. In their DSO Performance Panel Submissions, we expect DNOs to build on and highlight progress they have made, and are making, on their activities from previous Regulatory years. This means taking new steps within that Regulatory year to improve performance. The DSO Performance Panel will be asked only to take account of evidence if it relates to 'new' actions taken by the DNO within that Regulatory year. However, that does not preclude implementing additional steps to go above and beyond expectations in pre-existing activities.

4.21. For the avoidance of doubt, we expect 'BAU innovation's to be a core part of DSO activities within the period. However, undertaking innovation projects, whether funded through Totex Allowance or dedicated innovation funding, does not automatically qualify as exceeding Baseline expectations. The DSO Performance Panel Submissions should clearly identify the driver for activities where that driver has come from an Ofgem, Department for Business, Energy & Industrial Strategy (BEIS) or other statutory body incentive. Such activities are not necessarily out of scope, but the DSO Performance Panel will assess whether it is appropriate to reward these activities under the DSO incentive, or whether they are appropriately incentivised by their primary driver. Where the DSO Performance Panel decides that an activity is appropriately incentivised by its primary driver, this will be set out in the DSO Incentive Report as part of the DSO Performance Panel assessment (see paragraph 7.7).

<sup>&</sup>lt;sup>5</sup> "BAU innovation" is any innovation that is not dependent on, or funded via, ringfenced innovation stimulus funds (eg innovation funded through the main price control totex).

<sup>&</sup>lt;sup>6</sup> Examples would include activities that form part of a Strategic Innovation Fund (SIF) or Network Innovation Allowance (NIA) project.

#### **5. Outturn Performance Metrics**

- 5.1. DNOs are required to regularly report on Outturn Performance Metrics to enable DSO Stakeholders to track their performance over the course of the regulatory period. The full list of Outturn Performance Metrics, including the formula and calculation method, are set out in the below tables.
- 5.2. The value of the reward or penalty associated with the Outturn Performance Metrics is calculated mechanistically in accordance with Parts [D, E, F and G] of Special Condition [4.8].
- 5.3. DNOs are required to submit their annual outturn data for each Outturn Performance Metrics performance in their Regulatory Reporting Pack (RRP). Specific reporting requirements for the Outturn Performance Metrics will be set out in the RIIO-ED2 Regulatory Instructions and Guidance (RIGs).
- 5.4. For the Regulatory year commencing on 1 April 2023, the financial incentive value associated with the Outturn Performance Metrics will be zero. We expect to consult on targets for the Outturn Performance Metrics in 2023 with a view to establishing these for the Regulatory year commencing on 1 April 2024.

**Table 6: Flexibility Market Testing Outturn Performance Metric** 

Flexibility M	larket Testing Outturn Performance Metric			
Purpose	To validate a DNO's commitment to considering flexibility as its most preferred option (when economically feasible) to run efficient and safe electricity distribution networks			
Definition	Flexibility market testing $\% = \frac{\sum M_i}{\sum M_i + N_i} * 100$			
	Where:			
	$ullet$ $M_i$ is the MVA capacity of conventional reinforcement or reinforcement under deferral that was market tested for flexibility			
	$ullet$ $N_i$ is the MVA capacity of conventional reinforcement or reinforcement under deferral that was not market tested for flexibility			
Method	The metric will cover all instances where a constraint was identified in the previous Regulatory year that required some form of intervention			
	<ul> <li>It will report on interventions on the primary network (ie 33kV and above) only</li> </ul>			

Flexibility M	larket Testing Outturn Performance Metric
	• It will require the completion of the Energy Network Association's (ENA) common evaluation methodology (CEM) cost benefit analysis (CBA) tool to assess the net benefit of flexibility or energy efficiency against a baseline of conventional reinforcement <sup>7</sup>
	• It will cover the use cases in the CEM Tool User Guide where flexibility or energy efficiency are for reinforcement deferral <sup>8</sup>
	<ul> <li>Exceptions will be considered if a DNO can demonstrate that no flexible resource was connected, or in a position to connect prior to constraint materialising, in the network location requiring intervention</li> <li>DNOs will be expected to maintain a record of all completed CBAs such that the Authority can audit the results during the price control</li> </ul>
Reporting frequency	Outturn will be reported on an annual basis through the Regulatory Reporting Pack (RRP)

**Table 7: Secondary Network Visibility Outturn Performance Metric** 

Secondary	Network Visibility Outturn Performance Metric
Purpose	To promote visibility and accuracy of utilisation of assets on the secondary network (Low Voltage (LV) and High Voltage (HV))
Formula	In aggregate, secondary network visibility will be the weighted average of monitored secondary network visibility % and unmonitored secondary network visibility %. The weights will accord with the number of ground mounted transformers (GMT) and pole mounted transformers (PMT) sites that have installed monitoring
	For GMT and PMT sites that are <u>monitored</u> , network visibility will be calculated as:
	Monitored secondary network visiblity $\% = \frac{\sum M_i W_i}{\sum W_i} * 100$
	Where:
	$ullet$ $M_i$ is the accuracy score of monitored sites in utilisation band $i$ ; and
	$ullet$ $W_i$ is % weight applied to the utilisation band $i$ .
	In turn, $M_i$ will be calculated as 1 – Mean Absolute Percentage Error (MAPE):
	$V_i = 1 - \left[ \frac{1}{n} \sum_{i=1}^n \frac{A_i - F_i}{Ai} \right]$
	Where:

 $<sup>^{7} \ \</sup>underline{\text{https://www.energynetworks.org/assets/images/Resource\%20library/ON22-WS1A-P1\%20Common\%20Evaluation\%20Methodology\%20Tool\%20Version\%202.2.zip} \\ ^{8} \ \underline{\text{Microsoft Word - CEM Tool User Guide v2.0 (energynetworks.org)}}$ 

## **Secondary Network Visibility Outturn Performance Metric** • *n* is the number of sites in utilisation band *i*; • $A_i$ is the actual utilisation (ie annual peak demand as a % of the asset's nameplate capacity) of site i; and • $F_i$ is the year-ahead forecast utilisation of site i. For unmonitored GMT and PMT sites, network visibility will be calculated as: Unmonitored secondary network visibility $\% = \frac{\sum U_i W_i}{\sum W_i} * 100$ Where: • $U_i$ is the accuracy score of unmonitored sites in utilisation band i; and • W<sub>i</sub> is % weight applied to the utilisation band i. In turn, $U_i$ will be calculated as 1 – Mean Absolute Percentage Error (MAPE), but where the MAPE is the mean MAPE of a set number of iterations of an associated model that estimates unmonitored sites and is validated using monitored sites Method • The DNOs should report the accuracy score for each of the seven utilisation bands (0-20%, 20-40%, 40-60%, 60-80%, 80-100%, 100-120%, > 120%), as set out in the CV2 table<sup>9</sup> • Greater weighting will be applied to higher utilisation bands, where investment decisions are more likely to be taken. The weights will be: 0-20% = 0.1, 20-40% = 0.1, 40-60% = 0.1, 60-80% = 0.1, 80-100% = 0.2, 100-120%, = 0.2 > 120% = 0.2• The utilisation band for each site would be determined by the actual utilisation in the reporting year Sites that were reinforced in the year will be excluded from the metric as this will have a material impact on utilisation projections • For unmonitored sites, the accuracy score of the associated model will be based on an agreed number of model iterations with random training/testing splits • To provide confidence around reporting on unmonitored sites, an independent auditor will verify submissions to ensure that any modelling approach used was sufficiently robust The metric target and outturn performance should cover both GMT and PMT sites, and reward/penalty will be applied to this aggregate performance. However, each DNO will also report GMT and PMT performance separately as a memo table Reporting Outturn will be reported on an annual basis through the Regulatory

9 https://www.ofgem.gov.uk/publications/riio-ed2-data-templates-and-associated-instructions-and-guidance

frequency

Reporting Pack (RRP)

**Table 8: Curtailment Efficiency Outturn Performance Metric** 

Curtailment	Efficiency Outturn Performance Metric
Purpose	To limit Curtailment of users on Curtailable Connections resulting from actions taken by the DNO to restrict the conditions of a connection (import and/or export capacity) in response to a constraint on the Distribution System
Formula	The Full Export Curtailment Hours shall be calculated as follows at the end of each Regulatory year:
	$= \sum_{i=1}^{n} (de_i \times civ_i) \div (cec \times h_i)$
	Where:
	<ul> <li>de is the duration of each period of Curtailment (in hours) determined from the time the user is instructed by the DNO to Curtail its Maximum Export Capacity to the time it is notified that there is no longer a requirement to curtail;</li> </ul>
	ullet $n$ is the number of curtailment instructions in the previous 12 months;
	<ul> <li>civ is the curtailment instruction value (ie value by which the DNO instructs the user to limit its Maximum Export Capacity);</li> </ul>
	• cec is curtailable export capacity (ie the Maximum Export Capacity less the non-curtailable export capacity); and
	• $h_i$ is the number of hours the user was connected to the Distribution System in the previous 12 months.
	The Full Import Curtailment Hours shall be calculated as follows at the end of each Regulatory year:
	$= \sum_{i=1}^{n} (di_i \times civ_i) \div (cic \times h_i)$
	Where:
	<ul> <li>di is the duration of each period of Curtailment (in hours) determined from the time the user is instructed by the DNO to Curtail its Maximum Import Capacity to the time it is notified that there is no longer a requirement to curtail;</li> </ul>
	ullet $n$ is the number of curtailment instructions in the previous 12 months;
	<ul> <li>civ is the curtailment instruction value (ie value by which the DNO instructs the user to limit its Maximum Import Capacity);</li> </ul>
	• <i>cic</i> is curtailable import capacity (ie the Maximum Import Capacity less the non-curtailable import capacity); and
	• $h_i$ is the number of hours the user was connected to Distribution System in the previous 12 months.

### **Curtailment Efficiency Outturn Performance Metric** Method The licensee will report Curtailment which captures any action taken by the DNO to restrict the conditions of a connection except where this restriction is caused by: • a fault or damage to the Distribution System which results in an interruption to the customer's supply; and/or • curtailment as a result of constraints on the transmission network. The licensee should measure Curtailment by assessing the number of curtailment instructions it issued to a customer in the previous 12 months and by: • measuring the duration (in hours) of each period of Curtailment • multiplying the duration by the curtailment instruction value • dividing by the curtailable import capacity/curtailable export capacity (as applicable) • dividing by the number of hours the user was connected to the Distribution System For reporting the annual curtailment % on a licence area basis, each DNO will report an aggregated annual curtailment % based on the ratios of Curtailment to Maximum Import/Export Capacity for all users Outturn will be reported on an annual basis through the Regulatory Reporting frequency Reporting Pack (RRP)

## 6. Methodology for determining an award

- 6.1. Performance against each Evaluation criterion is calculated independently of the other criteria and then the rewards/penalties are added together to determine the overall reward/penalty in accordance with Part [A] of Special Condition [4.8].
- 6.2. The reward or penalty associated with the DSO Stakeholder Satisfaction Survey criterion is calculated mechanistically in accordance with the formulae set out in Part [B] of Special Condition [4.8].
- 6.3. For the DSO Performance Panel assessment criterion, Ofgem will consider the DSO Performance Panel's recommendation, the DSO Performance Panel Submission, the responses to the call for evidence, the presentation provided by the DNO at the DSO Performance Panel session, and the answers provided to the question-and-answer session at the DSO Performance Panel session. We will then decide on an appropriate reward or penalty for each DNO. The processes underpinning the DSO Performance Panel scoring are explained in Chapter 4 and a worked example of how the score is calculated is provided in Appendix 5. The reward or penalty is calculated in accordance with the process described in Part [C] of Special Condition [4.8]. For the avoidance of doubt, the final decision on an appropriate reward or penalty for each DNO will lie with Ofgem who will form views based on the evidence available, including the DSO Performance Panel's recommendation. Where our decision is different to the DSO Performance Panel's recommendation, we will explain our reasoning.
- 6.4. The values of the rewards or penalties for the individual Outturn Performance Metrics are calculated mechanistically in accordance with the formulae and targets set out in Parts [E, F and G] of Special Condition [4.8]. These values are then summated in accordance with the formula in Part [D] of Special Condition [4.8] to determine the overall reward or penalty for the Outturn Performance Metrics criterion.

### 7. Reporting and publications

### **Timescales for reporting**

7.1. Table 9 below sets out the reporting requirement timescales for the DSO incentive. This applies from 1 April 2024.

Table 9: DSO incentive reporting requirements

Output	Reporting deadline	Notes
DSO Performance Panel Submission	30 April	Submitted via email to Flexibility@Ofgem.gov.uk and published on the DNO's website
DSO Stakeholder Satisfaction Survey	31 July	Submitted as part of the Regulatory Reporting Pack
Outturn Performance Metrics	31 July	Submitted as part of the Regulatory Reporting Pack
Regularly Reported Evidence (RRE)	31 July	Submitted as part of the Regulatory Reporting Pack

## **Reporting guidance**

- 7.2. As noted in Table 9 above, DNOs will be required to submit outturn data in relation to the DSO Stakeholder Satisfaction Survey, Outturn Performance Metrics and the Regularly Reported Evidence in their Regulatory Reporting Pack (RRP). The specific requirements will be set out in the RIIO-ED2 Regulatory Instructions and Guidance (RIGs).
- 7.3. This DSO Incentive Governance Document also sets out general standards of conduct that should apply to all reporting performed by DNOs. These are that DNOs must ensure:
  - Reporting is accessible and easy to understand, and gives prominence to the most pertinent information;
  - Due care and attention are taken to ensuring that any reporting is, to the best of the DNO's knowledge at the time, accurate and complete;

- Where material amendments are made to any information reported, these amendments are clearly communicated to DSO Stakeholders and Ofgem and are clearly identified; and
- Where a DNO identifies that inaccurate information is being reported, we must be notified, and corrections made as soon as practically possible.

#### **DSO Performance Panel Submission**

- 7.4. In accordance with Part [H] of Special Condition [4.8] DNOs are required to prepare and publish a DSO Performance Panel Submission explaining their performance against the DSO Performance Panel assessment criteria. When compiling their DSO Performance Panel Submission, DNOs must ensure that:
  - The submission is no longer than 30 A4 pages (excluding cover pages, content pages and blank pages);
  - It provides a fair and complete picture of the DNO's performance, including both areas of out- and under-performance;
  - It includes all relevant justification the DNO wishes the DSO Performance Panel to consider, as no other written evidence will be submitted by the DNO to the DSO Performance Panel; and,
  - It takes on board Ofgem's and/or relevant DSO Stakeholders' feedback on the submissions and factors this into the development of future versions (or provides a reasonable explanation for why feedback cannot be actioned).
- 7.5. The DSO Performance Panel Submission must be structured in line with both the above criteria in paragraph 7.4 and in accordance with the DSO Performance Panel assessment criteria in Table 4. The DSO Performance Panel Submission structure should be common across all DNOs and agreed by Ofgem in advance. Embedded URLs are acceptable.
- 7.6. Beyond these requirements, DNOs will have some flexibility as to how they gather and present relevant evidence in the DSO Performance Panel Submission.

## **DSO Incentive Report**

7.7. Starting from 1 April 2024, Ofgem will publish a DSO Incentive Report by 30 September. This report will include:

- DNOs' performance against each Outturn Performance Metric, ranked, and the associated financial reward/penalty for each DNO;
- DNOs' DSO Stakeholder Satisfaction Survey scores, ranked, including a breakdown by question, and the associated financial reward/penalty for each DNO;
- DNOs' DSO Performance Panel scores, ranked, including a breakdown by DSO Performance Panel assessment criteria, and the associated financial/reward for each DNO;
- The overall financial reward or penalty each DNO will receive for the DSO incentive; and
- Detailed DSO Performance Panel feedback for each of the DNOs. This will
  explain how the scores were decided, subject to redaction of confidential
  information. If Ofgem deviated from the DSO Performance Panel's
  recommended score then reasoning will be provided.

### **Appendix 1 - DSO Baseline expectations**

## Role 1: Planning and network development

Activity 1.1: Plan efficiently in the context of uncertainty, taking account of whole system outcomes, and promote planning data availability

The purpose of this activity is to ensure that DNOs' planning processes are clear, that high quality, data-driven decisions are made, and that DNOs provide stakeholders with relevant information to inform their own decision-making.

Our Baseline expectations are:

- **1.1.1** DNOs to define and develop enhanced forecasting, simulation and network modelling capabilities, with processes in place to drive continual improvement to meet network and user needs.
  - We expect increased monitoring equipment to be rolled out across their network where it has demonstrable net value for network planning. We expect demonstrable value to include a rigorous presentation and analysis of needs and use of data for networks and non-networks parties, well established functional and technical specifications, and cost-effectiveness analysis.
  - DNOs should also explore all reasonable options to use data from third parties, including harnessing smart meter data subject to data sharing agreements, to improve their simulated forecasting.
- 1.1.2 We expect DNOs to submit a network visibility strategy and this should cover the use of all sources of network data including direct measurement from monitoring roll-out, smart meter data, data analysis and modelling, and any other third party data sources. The strategy should explain how network monitoring for planning purposes will inform planning decisions, including the use of flexibility; clear justifications for where and when monitoring is rolled-out, including explanations of any targeting for equipment deployment; and the specifications of equipment, including detail on the data captured, frequency of polling, and the mode of communicating data. Note, companies may wish to combine this strategy with network monitoring and visibility for network operations under role

- **1.1.3** DNOs to have in place standard and effective processes for sharing network planning information with other network licensees, including the ESO, network users and other interested parties, for example to enable innovation and support the development of local authority and devolved government plans for decarbonisation.
  - As part of this, we expect DNOs to liaise with their network users to collate and share data, to publish comprehensive and comparable heat maps that provide network users high value information about where to connect, and to inform their operations.
  - These geographic information system datasets should be available for download or for access independently of DNO websites (for example, via Web Map Service server connections). Ofgem-led reforms to the Long Term Development Statement (LTDS) will seek to licence minimum standards against these improvements.
- **1.1.4** DNOs to have in place transparent and robust processes for identifying and assessing options to resolve network needs, using competition where efficient.
  - This should include demonstrable cross-sector<sup>10</sup> engagement,
     optioneering, and planning with sectors or vectors other than their own.
  - DNOs should consider flexibility and promoting energy efficiency in addition to innovative use of existing network assets and traditional reinforcement. The process of identifying options should include engaging with other network licence holders and current and prospective network users. Options must be fairly compared against one another, with flexibility used where it is economic and efficient compared to investing in traditional reinforcement or technological solutions. We expect a consistent approach for valuing flexibility, taking into account the option

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¹º 'Sector' refers to the distribution, transmission and operation of a single energy source. For example, the 'gas sector' includes the firms responsible for gas transmission, distribution, and system operation. By 'cross-sector', we refer to any licensee in one energy source sector, eg electricity, working with any licensee in another energy source sector, eg gas

value it provides in the context of uncertainty. DNOs must ensure transparency in their approach to allow scrutiny of decision-making.

### **Role 2: Network operation**

Activity 2.1: Promote operational network visibility and data availability

The purpose of this activity is to ensure that DNOs are able to share relevant data on network operations to stakeholders, and to ensure that DNOs have sufficient network knowledge to operate their network under safe and reliable conditions.

Our Baseline expectations are:

- 2.1.1 DNOs to improve network visibility and identification and sharing of
  operability constraints, including publishing this data to help avoid conflicting
  actions being taken by other network and system operators. DNOs must take
  reasonable steps to access and subsequently share, including by publishing, data
  and operability constraint information in a timely manner.
- 2.1.2 We expect DNOs to submit a network visibility strategy and this should cover the use of all sources of network data including direct measurement from monitoring roll-out, smart meter data, data analysis and modelling, and any other third party data sources. The strategy should explain how network monitoring for operational purposes will inform operational decisions, including enabling the management and delivery of flexibility services; clear justifications for where and when monitoring is rolled-out, including explanations of any targeting for equipment deployment; and the specifications of equipment, including detail on the data captured, frequency of polling, and the mode of communicating data. Note, companies may wish to combine this strategy with network monitoring and visibility for network planning under role 1.
- **2.1.3** DNOs to provide the ESO with information across timescales about the DER it is planning to instruct to dispatch. Data should include contracted parties, availability and information on scheduled and unscheduled utilisation. Sharing this information in a timely manner should enable the ESO to identify which DER are

available for its own needs and improve the ability of DER to stack value across markets.

- 2.1.4 DNOs to gather sufficient information on DER characteristics and parameters to provide information and inform decisions to secure against events that could lead to disconnection of DER.
- 2.1.5 DNOs to make available operational data that supports network users and
  other relevant stakeholders to make better decisions about how to use the
  network. Data should be readily available in agreed and common data formats.
  This could include, but is not limited to:
  - working network configuration data;
  - losses recorded at substation level;
  - o outages both planned and unplanned;
  - as recorded historic Feeder MW/MVA Utilisation and calculated headroom/footroom; and
  - utilisation and curtailment of areas under the control of capacity
     management systems such as Active Network Management systems.

#### Activity 2.2: Facilitate efficient dispatch of distribution flexibility services

This activity is about defining and developing system operability capabilities and the actions network companies take to operate the Distribution System safely. The aim is to ensure DNOs facilitate dispatch of DER that is economic and efficient.

#### Our Baseline expectations are:

2.2.1 DNOs to have and regularly review a decision-making framework for when
DER are instructed to dispatch in real-time. The decision-making process,
including alternatives considered, should be transparent. This should promote
coordination across services (including curtailment as part of non-firm connection
agreements and ESO flexibility services), maximise liquidity, avoid market
fragmentation and ensure dispatch results in the best outcome for the whole
system; this includes service provision to the ESO and other distribution
networks.

- As part of this decision-making framework, there must be rules in place for coordinating dispatch instructions for DSO and ESO flexibility services. This could be through primacy rules or more comprehensive optimisation processes that better enable stacking of revenues for DER. The rules should be transparent, objective, and promote whole system efficiencies.
- **2.2.2** DNOs shall facilitate secondary trading of distribution flexibility services and curtailment obligations. In this context, facilitating means providing the relevant operational data, ensuring the DNO has processes in place to collect the relevant data about the trade, and making the operational parameters clear (and justified in the context of network reliability and efficiency).
- **2.2.3** DNOs to introduce clear processes for the design, development, and communication of the decision-making framework. These should include transparent and participatory processes for stakeholder input.
- **2.2.4** DNOs to develop efficient, scalable dispatch instruction infrastructure and avoid proprietary systems.
  - We expect clear definitions of different types of dispatch instruction for distribution flexibility services and transparent rules about when and in which markets they should be used. Circumstances for different dispatch instructions should be well-justified. Definitions of these circumstances should be developed with input and cooperation from network users. The application of hard dispatch controls shall be for the improved reliance on market-based mechanisms, not to the detriment of their development. Capabilities in network operations, for example in dispatch instructions and associated system architectures shall not be hard coded to the DNO. These must be developed so that they can be cost effectively assigned to another party in future if this is needed.

## **Role 3: Market development**

Activity 3.1: Provide accurate, user-friendly and comprehensive market information

The purpose of this activity is to ensure that DNOs sufficiently inform stakeholders of information that will assist them in participating in, managing or otherwise engaging with

markets in the long and short term. We recognise there are overlaps across other activities, but at the same time believe this information is sufficiently critical to warrant its own statement, and to also include wider information than that mentioned in prior activities.

#### Our Baseline expectations are:

- 3.1.1 DNOs collate and publish as much relevant data and information as reasonable that will help market participants identify and value opportunities to provide network services to DNOs and take market actions that support efficient whole system outcomes. Relevant data and information include planning and operational data (such as that set out in Activity 1.1 and 2.1). This should be provided with sufficient lead times to enable wider participation in distribution flexibility services markets. It also includes information on historic and future distribution flexibility services market actions. This should include tender results, prices bid and paid, the carbon content of aggregated units, how often DER is dispatched (and volumes) and other actions taken by the DNO (with anonymisation as required), including curtailment as part of non-firm connection agreements. The information should include all requirements set out in licence conditions to support DER to identify revenue opportunities. This increases the accessibility of tendering for distribution flexibility services for flexibility providers (while also taking account of DNOs flexibility needs).
- 3.1.2 DNOs should, with stakeholder input, develop robust strategies for how
  they will collate and publish more helpful information, wherever possible
  consistently and in coordination with other network licence holders, and
  communicate this clearly.
- 3.1.3 DNOs should regularly and actively engage with market participants to understand what data and information is helpful to support market development. While there will be minimum legal requirements set out in licences, we expect DNOs to use their stakeholder engagement to consider the most effective format and frequency of publishing that data to ensure it is user-friendly. The information must be easily accessible and navigable. We expect this includes publishing data in machine-readable formats.

- **3.1.4** DNOs should, where reasonable, tailor both their information provision and engagement approaches to reflect different needs of potential market participants, including groups in vulnerable situations. In many instances, collaboration across DNOs in engagement is expected to reduce duplication, make it easier for stakeholders to engage and avoid stakeholder fatigue.
- **3.1.5** DNOs should seek to ensure the information they publish is as accurate and unbiased as reasonable (ie correct at time of publication, as close as possible to the actual value and not skewed in any direction).

Activity 3.2: Embed simple, fair and transparent rules and processes for procuring distribution flexibility services

The purpose of this activity is to ensure distribution flexibility service market design leads to good competitive outcomes, including downward pressure on prices and innovative services.

#### Our Baseline expectations are:

- 3.2.1 DNOs to have clear processes in place for developing and amending
  distribution flexibility services products, contracts, and qualification criteria, that
  are, wherever possible, standardised.<sup>11</sup> The processes should be transparent and
  participatory, involving other DNOs, the ESO, and current and potential
  distribution flexibility service providers.
  - DNOs should also coordinate and engage with third party platform providers, who can offer system value by providing new routes to market and driving whole system outcomes. DNOs should not prevent the emergence of this sector and should enable third party platforms to 'plugin' to DNOs' flexibility procurement processes. Products and contracts should be adaptive to reflect prevailing system needs, type, and availability of flexible resources. The objective of these processes is to

<sup>&</sup>lt;sup>11</sup> Standardisation of the technical parameters of the product, processes and the applicable contracts, not just in branding, with clear justification for any deviations, as well as data standards and methods for sharing this information.

enable as wide participation in distribution flexibility services markets as possible.

- 3.2.2 DNOs should identify the optimum combination of longer and shorter term lengths of markets and contract lengths reflecting the network need. Needs should be neutrally defined, to allow for a range of flexibility providers to participate. This will help improve market liquidity and the opportunities for innovation and dynamic competition. Individual decisions and frameworks for deciding market timeframes and contract lengths should be transparent, informed by stakeholders and justified as being the most economic and efficient solution. Notwithstanding, deviations from the standard should be justified with clear governance processes for managing change that should be clearly communicated.
  - o DNOs should have clear, comprehensive and transparent mechanisms and associated commercial structures for coordinating distribution flexibility services and ESO flexibility services procurement. DNOs shall not act as the commercial route for DER accessing ESO flexibility services. Transparent (and possibly tripartite) commercial agreements may be required to reflect the potential effects of DER dispatch on Distribution System operability and the role of DNOs in setting dispatch parameters (as set out in Activity 2.1 and 2.2). These agreements should remove exclusivity clauses as far as possible, including with regard to non-firm connections. Coordination on dispatch parameters should enable a closer to real-time understanding of what DER needs to be armed and available for a particular service, and what can be available to provide other services.
  - DNOs should consider arrangements to support DERs to provide services that meet both DNO and ESO needs.
- 3.2.3 DNOs should make available the necessary data to enable secondary trading, for example capacity and other peer-to-peer trading. Enabling includes defining, communicating and justifying the parameters in which these trades can take place for operability purposes.
- 3.2.4 Market support services, such as pre-qualification, credit-checking and settlement must enable simple and cost-efficient participation in markets. DNOs

should enable, and never prevent, the opportunity for third parties to provide these services where they could do so more efficiently.

3.2.5 DNOs 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. 12 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. At a minimum, this should include demonstrable executive-level accountability and board-level visibility of key DSO decisions across the planning, operation and market facilitation functions. This should also include clear and separate decisionmaking frameworks, supported by independent oversight, such as external auditing, to promote transparency and enable scrutiny. Additionally, to support the justification of DNOs' proposals as proportionate, we expect DNOs to set out conflict mitigation options that were considered but not proposed, including legal separation if this is not part of the DNO's suite of proposals. As part of their justification, DNOs should include the available supporting information on the likely costs, timings and implications of these alternative options or a narration of initial views.

<sup>&</sup>lt;sup>12</sup> Other business interests could include services DNOs are able to provide outside of their regulated income. In March 2022, we consulted on DNOs using remote voltage control to provide the ESO with balancing services (CLASS) in RIIO-ED2. We are carefully considering the responses to this consultation and expect to publish a decision by Winter 2022.

# **Appendix 2 – DSO Stakeholder Satisfaction Survey questions**

#### **Table 10: DSO Stakeholder Satisfaction Survey questions**

#### DSO Stakeholder Survey questions

#### 1. Coordination

Our three DSO roles require us to coordinate our planning and network development, network operation, and market development activities with those of other network and system operators. This is to avoid market fragmentation and conflicting actions, as well as to ensure that all resources are effectively utilised in our operations. Our recent activities in this area include:

[Each DNO to input a short list of deliverables implemented in the last 12 months that relate to the question, not exceeding 300 characters].

#### Overall, from your experience in this area in the last 12 months, how would you rate our DSO performance?

#### 2. Data and information provision

Our three DSO roles require us to provide accurate network planning information, operational data and market information in a format that meets the needs of network users and other stakeholders. Our recent activities in this area include:

[Each DNO to input a short list of deliverables implemented in the last 12 months that relate to the question, not exceeding 300 characters].

#### Overall, from your experience in this area in the last 12 months, how would you rate our DSO performance?

## 3. Flexibility market development

One of our DSO roles is to develop the market for distribution flexibility services and coordinate this with the GB System Operator's procurement of flexibility services. Our recent activities in this area include:

[Each DNO to input a short list of deliverables implemented in the last 12 months that relate to the question, not exceeding 300 characters].

## Overall, from your experience in this area in the last 12 months, how would you rate our DSO performance?

### 4. Decision making

### DSO Stakeholder Survey questions

It is important that we plan, develop and use the distribution network in a way that identifies and addresses actual and perceived conflicts between DSO and our network ownership roles or other business interests. Our recent activities in this area include:

[Each DNO to input a short list of deliverables implemented in the last 12 months that relate to the question, not exceeding 300 characters].

## Overall, from your experience in this area in the last 12 months, how would you rate our DSO performance?

#### 5. Network planning

One of our DSO roles is to engage across sectors to support the development of local authority and devolved government plans for decarbonisation. Our recent activities in this area include:

[Each DNO to input a short list of deliverables implemented in the last 12 months that relate to the question, not exceeding 300 characters].

Overall, from your experience in this area in the last 12 months, how would you rate our DSO performance?

Table 11: Example DSO Stakeholder Survey score calculation

Question	Respondent 1	Respondent 2	Respondent 3	Respondent 4	Average score
1. Coordination	9	8	7	-	8
2. Data and information provision	7	7	8	6	7
3. Flexibility market development	6	5	6	7	6
4. Decision making	4	-	5	6	5
5. Network planning	8	8	7	6	7.25

The score used for Part [B] of Special Condition [4.8] is the average (mean) of all the responses. In this example it is 6.67 (rounded to 2 decimal points). This differs from the average (mean) score of the respondents' average sores (6.65) as respondent 4 has not responded to question 1 and respondent 2 has not responded to question 4.

# **Appendix 3 - Regularly Reported Evidence**

**Table 12: Regularly Reported Evidence** 

RRE 1: Capacity rele	eased through flexibility
Purpose	Captures the outcomes of DNO's decision to contract flexibility services.
Method	Would track the MVA capacity of primary (CV1) and secondary (CV2) assets where the counterfactual to the use of flexibility (or other innovative solutions) would have been reinforcement: $= \frac{\sum D_i}{\sum D_i + R_i} * 100$
	Where $D_i$ is the MVA capacity of reinforcement under deferral at site $i$ and $R_i$ is the MVA capacity of reinforced site $j$ .
Reporting frequency	Annual
RRE 2: Primary net	work forecasting accuracy
Purpose	Aligns with DSO role to plan efficiently in the context of uncertainty.
Method	Would compare the accuracy of the forecast maximum demand MW in the Long Term Development Statement (LTDS) with the outturn reported in the Load Index (LI) reporting pack for each primary substation.
Reporting frequency	Annual
RRE 3: Transformer	utilisation
Purpose	Assesses whether a decision to reinforce is justified by high asset utilisation.
Method	Would measure the % of reinforced ground mounted transformers that were in a high utilisation category (based on most recent measure of utilisation):

	$= \min\left(1, \frac{\sum H_i - (Li - 0.1)}{0.9}\right)$
	Where $H_i$ is the proportion of MVA capacity released in bands classified as "high utilisation" (>120%) and $Li$ is the proportion of MVA capacity released
Reporting frequency	Annual
RRE 4: DNOA or eq	uivalent decision outcomes
Purpose	Reports the outcomes of key DNO investment decisions.
Method	Would report the outcomes from the Network Options Assessment for each scheme as a % of the total against
	standardised categories (eg flexibility, reinforcement + flexibility, reinforcement, no action).

# **Appendix 4 - Performance panel assessment scoring guidance**

Table 13: Scoring guidance: Delivery of DSO benefits

	Poor (1-2)	Weak (3-4)	Average (5-6)	Good (7-8)	Excellent (9+)
Level of ambition	Benefits are poorly articulated and supported by a limited evidence base	Some consideration of benefits, but unclear to what extent they are driven by DSO activities  Assumptions are weakly articulated and not consistent with well-established methods for economic appraisal (eg HM Treasury (HMT) Green Book)		As "Average", but in addition evidence that the DNO is promoting wider system benefits (eg greater network access for DER and better coordinated dispatch across the Transmission / Distribution boundary)	As "Good", but in addition evidence that the DNO is taking a proactive role on regional cross vector investment planning and interfacing with local actors (eg LA and GDNs)
Benefits realisation	No consideration of benefits realisation within the RIIO-ED2 period	Limited evidence that the delivery of benefits has been tracked within the RIIO-ED2 period	Clear articulation of actual benefits the DNO has realised within the RIIO-ED2 period through the delivery of its DSO strategy	As "Average", but in addition evidence that the DNO has quickly and proactively adapted existing plans and course-correcting	As "Good", but in addition evidence that the DNO has delivered additional outputs that seek to maximise benefits for customers

Poor (1-2)	Weak (3-4)	Average (5-6)	Good (7-8)	Excellent (9+)
			where opportunity to increase benefits	

Table 14: Scoring guidance: Data and information provision

	Poor (1-2)	Weak (3-4)	Average (5-6)	Good (7-8)	Excellent (9+)
Scope, granularity and accuracy of data	Scope, granularity operational and market data and information collected and shared  No consideration of third-party data with little to no use of smart meter data  No strategic approach  Some basic p operational a data and info collected and basic properational and market data and info collected and collected and basic properational and market data and info collected and collected and basic properational and market data and info collected and collected and basic properational and market data and info collected and collected and basic properational and market data and info collected and collected and basic properational and market data and info collected and collected and collected and basic properational and market data and info collected and collected and basic properational and market data and info collected and collected and basic properational and market data and info collected and collected and basic properational and market data and info collected and basic properational and data and	Some basic planning, operational and market data and information collected and shared  Limited consideration of third-party data and limited use of smart	Comprehensive data	As "average", but in addition:  • Clear evidence that the DNO is sharing	As "good", but in addition:  The DNO is leading the sector in promoting planning, operations and market data availability  The DNO is sharing underlying
	improvements with very weak evidence that the DNO is taking steps to improve data quality  Little to no consideration of how to	only limited evidence that the DNO is taking steps to improve data quality  Limited consideration	harnessing smart meter data  Clear evidence that the DNO is taking steps to improve data quality, with processes in place to address gaps in datasets and drive up standards		methodologies and other insights beyond output data

<sup>&</sup>lt;sup>14</sup> These include, but are not limited to, comprehensive and comparable heat maps, distribution flexibility tender results and curtailment as part of non-firm connection agreements.

	Poor (1-2)	Weak (3-4)	Average (5-6)	Good (7-8)	Excellent (9+)
	is as accurate and unbiased as possible <sup>13</sup>	accurate and unbiased as possible	Consideration of how to ensure data and information published is as accurate and unbiased as possible		
Accessibility of data	Little to no consideration of how to tailor data and information provision to DSO Stakeholders' needs Data is only available in differing, hard to use formats Data is not readily available in a logical, easy to access location Lack of credible evidence that industry standards are being considered or applied	information provision to DSO Stakeholders' needs Data is largely available in an	The DNO has considered how to adapt data and information provision to DSO Stakeholders' needs Data is available in an accessible, common format Data is readily available in a logical, easy to access location Evidence that industry standards are consistently being considered or applied	Tailored approach to provision and clear evidence of how DSO Stakeholder engagement is being used to influence and improve provision  Data is available in an accessible, common format  Data is readily available in a logical, easy to access location	As "good" with in addition:  Provision of network models  Consistent use of Application Programming Interfaces (APIs) to allow DSO Stakeholders to automate their data collection

<sup>&</sup>lt;sup>13</sup> By accurate and unbiased we mean correct at time of publication, as close as possible to the actual value and not skewed in any direction.

**Table 15: Scoring guidance: Flexibility market development** 

	Poor (1-2)	Weak (3-4)	Average (5-6)	Good (7-8)	Excellent (9+)
Design of distribution flexibility products, contracts and processes	Lack of standardisation across the DNO's distribution flexibility services products, contracts, and qualification criteria  The DNO is not following industry standard practice  Limited DSO Stakeholder engagement has been undertaken to identify and address key issues hindering flexibility market development  The DNO is using proprietary systems	Lack of standardisation across the DNO's distribution flexibility services products, contracts, and qualification criteria, with limited justification  The DNO is following industry standard practice in some areas, with limited justification where this is not the case  Some DSO Stakeholder engagement has been undertaken to identify and address key issues hindering flexibility market development, but this largely relies on centrally-led programmes  The DNO is using proprietary systems	The DNO's distribution flexibility services products, contracts, and qualification criteria are standardised. Where not, credible justification is provided The DNO is following industry standard practice, eg implementing Open Network Project deliverables. Where this is not the case a credible justification is provided Extensive DSO Stakeholder engagement has been undertaken to identify and address key issues hindering flexibility market development The DNO can demonstrate it has avoided proprietary systems	As "good", but in addition:  The DNO has implemented in full the current set of Open Network Project deliverables, and made improvements in response to DSO Stakeholder feedback  Clear evidence that the DNO is unlocking the value of flex and energy efficiency in more nascent areas, eg constraints on the secondary (LV and HV) network	As "good", but in addition:  The DNO is setting an industry leading benchmark for distribution flexibility products, contracts and processes

	Poor (1-2)	Weak (3-4)	Average (5-6)	Good (7-8)	Excellent (9+)
Facilitation of market access	platform services  Little to no evidence that the DNO has taken steps to support DER to provide services that meet	support services and platform services  The DNO has taken modest steps to support DER to provide services that meet both DNO and GB System Operator needs  Limited justification provided for the use of	how the DNO is enabling third parties to provide market support services and platform services  Clear evidence that the DNO has undertaken initiatives to improve market access and enabling simple, cost-	As "average", but in addition:  The DNO is demonstrably providing operational data to the GB System Operator and other DNOs in a practical and accessible way (for instance via an Inter-control center Communications Protocol (ICCP) link) to provide visibility and to coordinate / avoid conflicts  The DNO can demonstrate that its commercial arrangements with DER enable better coordination with the GB System Operator	As "good", but in addition:  Clear evidence that the DNO's ambition extends beyond delivering distribution flexibility (for network minimisation, management and restoration) to enabling and facilitate flexibility for system optimisation

Table 16: Scoring guidance: Options assessment and conflicts of interest mitigation

	Poor (1-2)	Weak (3-4)	Average (5-6)	Good (7-8)	Excellent (9+)
Assessment of network options	Evaluation methodology used to assess options to resolve network needs is not clearly defined or accessible to DSO Stakeholders Options assessment involves limited cross- sector engagement, optioneering and planning with other sectors or vectors Evaluation methodology used to assess options to resolve network needs fails to recognise value of alternatives to conventional network reinforcement, including flexibility and energy efficiency	recognizes the value of alternatives to conventional network	Evaluation methodology used to assess options to resolve network needs is clearly defined and accessible to DSO Stakeholders Options assessment involves demonstrable cross-sector engagement, optioneering and planning with other sectors or vectors Evaluation methodology used to assess options to resolve network needs has a consistent approach to valuing alternatives to conventional network reinforcement, including flexibility and energy efficiency	As "average", but in addition:  Proactive engagement with other network companies and current / prospective network users to resolve network needs	As "good", but in addition:  The DNO has demonstrated the solution is economic and efficient over the long term, recognising the option value that flexibility and energy efficiency can provide  The network options assessment has demonstrated how wider whole system options have been assessed to deliver identified needs at lowest cost

Poor (1-2)	Weak (3-4)	Average (5-6)	Good (7-8)	Excellent (9+)
Management of conflicts of interest  The DNO has not introduced proportionate measures to identify and address actual and perceived conflicts between its DSO and network ownership roles	The DNO has not introduced sufficient proportionate measures to identify and address actual and perceived conflicts between its DSO and network ownership roles	The DNO has introduced proportionate measures to identify and address actual and perceived conflicts between its DSO and network ownership roles, including:  • Demonstrable executive level accountability and board-level visibility of DSO decisions  • Transparent, clear and separate decision-making frameworks supported by independent oversight	As "average", but in addition:  Outcomes of investment decisions are available on the DNO's website in a clear, accessible format  Demonstrable, wide-ranging stakeholder buy-in to the DNO's approach and measures, including from market participants  A clear evidence base put forward to justify the DNO's approach  Formalised DNO-DSO relationship (e.g. operational agreement, decision-making framework, DNO-DSO code)	As "good", but in addition:  The DNO's approach has been developed and validated through extensive DSO Stakeholder engagement and is backed up by compelling evidence  The DNO is applying best practice, learning from other network operators and updating its approach in line and wider industry developments  The DNO is delivering opportunities to both seek and share insights from across the sector, driving improvements not only within their organisation but across the sector as a whole

Table 17: Scoring guidance: Distributed energy resources (DER) dispatch decision making framework

Poor (	(1-2) Weak (3	3-4) Averag	ge (5-6)	Good (7-8)	Excellent (9+)
DER visibility and dispatch  Poorly define opaque deci- making fram when DER a instructed to in real-time, coordination dispatch instruction infrastructur clear definiti rules, that re "hard coding capabilities i operations to	visibility of DE characteristics data parameter dat	comprehen robust visible characteris data paraminform effectoordinated instructions. Clear and the decision-metwork the DNO Clear and that runs coding network the DNO Clear and the DNO Clear and the coordinated instruction of the coordinated instructions of the coordinated instructions of the coordinated instruction of the coordinated instruction of the coordinated instruction of the coordinated instruction of the coordinated instructions of the coordinated instructions of the coordinated instruction of the coordinated instructions of the coordinated instructio	sive and oility of DER tics and neters to octive and dispatch of the control of t	ldition:	As "good", but in addition:  Optimised whole system coordination of DER to resolving conflicts of services across GB System Operator and DSO Leading industry in ensuring dispatch logic is consistent and adhered to

# **Appendix 5 – Worked example of DSO Performance Panel score calculation**

Table 18: Worked example of DSO Performance Panel score calculation (scores and number of DSO Performance Panel members are illustrative)

Criteria	Weighting	DSO Performance Panel member 1	DSO Performance Panel member 2	DSO Performance Panel member 3	DSO Performance Panel member 4	Weighted average (mean) score
1. Delivery of DSO benefits	30%	7	8	7	8	2.25
2. Data and information provision	20%	6	5	6	6	1.15
3. Flexibility market development	20%	9	8	7	8	1.60
4. Options assessment and conflict of interest mitigation	20%	4	3	4	5	0.80
5. Distributed energy resources (DER) dispatch decision making framework	10%	6	5	7	5	0.58
Weighted average (mean) score	-	-	-	-	-	6.38

In this example, the weighted average (mean) score is the product of the average (mean) scores of the four DSO Performance Panel members for each question and the % weight that is assigned to that question.

# **Appendix 6 - Glossary**

Table 19: Glossary of key terms used in the DSO Incentive Governance Document

Element	Description
Authority	has the meaning given to that term in Standard Condition 1 of the Electricity Distribution Licence (Definitions for the standard conditions). References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work.
Baseline expectations	The baseline expectations of DNOs for their RIIO-ED2 business plans as defined in the Business Plan Guidance <sup>15</sup> . See Appendix 1.
BAU Innovation	means any innovation that is not dependent on, or funded via, ringfenced innovation stimulus funds (eg innovation funded through the main price control Totex Allowance).
Curtailable Connection	means a connection where the Customer's Maximum Import Capacity and/or Maximum Export Capacity is subject to Curtailment.
Curtail/Curtailment	means, any action taken by a DNO to restrict the conditions of a connection except where this restriction is caused by (i) a fault or damage to the Distribution System which results in an interruption to the customer's supply and/or (ii) curtailment as a result of constraints on the transmission network.
[Digitalisation Action Plan]	[has the meaning given to that term in Special Condition 9.5 of the Electricity Distribution Licence (Digitalisation)]
[Digitalisation Strategy]	[has the meaning given to that term in Special Condition 9.5 of the Electricity Distribution Licence (Digitalisation)]
Distribution Connection and Use of System Agreement	has the meaning given to that term in Standard Condition 1 of the Electricity Distribution Licence (Definitions for the standard conditions).
Distribution Flexibility Services Procurement Report	has the meaning given to that term in Standard Condition 31E of the Electricity Distribution Licence (Procurement and use of Distribution Flexibility Services)
Distribution Flexibility Services Procurement Statement	has the meaning given to that term in Standard Condition 31E of the Electricity Distribution Licence (Procurement and use of Distribution Flexibility Services)
Distributed Generator	means an installation comprising any plant or apparatus for the production of electricity that is directly connected to the licensee's Distribution System or is connected to that system through one or more electricity networks (other than an onshore Transmission System) that is or are directly connected to it (or, where the context so requires, means a person that owns or operates such an installation).

<sup>&</sup>lt;sup>15</sup> RIIO-ED2 Business Plan Guidance, <u>RIIO-ED2 Business Plan Guidance | Ofgem</u>

Element	Description
Distribution System	has the meaning given to that term in Standard Condition 1 of the Electricity Distribution Licence (Definitions for the standard conditions).
Distribution System Operation (DSO)	The engagements undertaken by the licensee pursuant to the operation of the Distribution System, being planning and network development, network operation and market development of the Distribution System as set out in Appendix 1.
DSO activities	The five DSO activities set out in Table [1] above.
DSO incentive	A financial output delivery incentive that drives DNOs to more efficiently develop and use their network, taking into account flexible alternatives to network reinforcement.
DSO Incentive Governance Document	The DSO Incentive Governance Document sets out the regulation, governance and administration of the DSO incentive. This document is issued by the Authority under Part I of the relevant licence condition (Special Condition 4.8. [Distribution System Operation output delivery incentive]). This document may be revised and reissued in accordance with Special Condition 1.3 (Common procedure).
DSO Incentive Report	An annual report published by Ofgem setting out how each DNO has performed under the DSO incentive. See Chapter 7.
DSO Performance Panel	An independent panel of experts and DSO Stakeholder representatives, who will have a role in challenging and evaluating DNOs' within-scheme performance by assessing the DSO Performance Panel Submissions against the DSO Performance Panel assessment criteria. See Chapter 4.
DSO Performance Panel assessment criteria	The DSO Performance Panel assessment criteria are the criteria that the Panel will use to assess and score DNO performance on DSO activities. The DSO Performance Panel assessment criteria are listed in Table 4 of this document.
DSO Performance Panel Chair	A non-scoring member of the DSO Performance Panel that is appointed to chair the DSO Performance Panel. The DSO Performance Panel Chair will oversee the DSO Performance Panel's assessment and will lead the DSO Performance Panel session. See Chapter 4.
DSO Performance Panel member	An individual appointed by Ofgem to sit on the DSO Performance Panel. See Chapter 4.
DSO Performance Panel session	A meeting of the DSO Performance Panel to discuss the DSO Performance Panel Submissions, assess performance against the DSO Performance Panel assessment criteria through a presentation and question-and-answer session, and determine a score for each DNO. See Chapter 4.
DSO Performance Panel Submission	The DNO's submission as required by Part [H] of Special Condition 4.8 (Distribution System Operation output delivery incentive). See Chapter 7.
DSO Stakeholder	Individuals or organisations that affect or can be affected by the DSO activities of the DNO. They may have a direct or indirect interest in DSO activities, and their contact may be anything from daily interaction to occasional contact. A non-exhaustive list of DSO Stakeholders is provided in Table 3.

Element	Description
DSO Stakeholder Satisfaction Survey	The survey used to measure the extent to which DSO Stakeholders are satisfied with the service provided by DNOs for the purposes of the DSO incentive for which the questions are prescribed in the RIGS.
ED2 Price Control Financial Model	means the model of that name that was first published by the Authority to come into effect on 1 April 2023.
Electricity Distribution Licence	has the meaning given to that term in Standard Condition 1 of the Electricity Distribution Licence (Definitions for the standard conditions).
Embedded Capacity Register	has the meaning given to that term in the Distribution Connection and Use of System Agreement.
Evaluation criteria	The criteria used in the DSO incentive to assess performance, including DSO Stakeholder Satisfaction Survey, DSO Performance Panel assessment and Outturn Performance Metrics. See paragraphs 2.2 – 2.3.
Full Export Curtailment Hours	means the value calculated in accordance with the relevant formula set out in Table 8.
Full Import Curtailment Hours	means the value calculated in accordance with the relevant formula set out in Table 8.
GB System Operator	has the meaning given to that term in Standard Condition 1 of the Electricity Distribution Licence (Definitions for the standard conditions).
Long Term Development Statement	has the meaning given to that term in Standard Condition 25 of the Electricity Distribution Licence (Long-Term Development Statement).
Maximum Export Capacity	has the meaning given to that term in the Distribution Connection and Use of System Agreement.
Maximum Import Capacity	has the meaning given to that term in the Distribution Connection and Use of System Agreement.
Network Innovation Allowance (NIA)	means the network innovation allowance provided by Special Condition [5.2] of the Electricity Distribution Licence (RIIO-2 network innovation allowance).
Outturn Performance Metric	A numerical measure of DNO performance which can be produced regularly, has a pre-defined methodology and has clear performance benchmarks.
Regularly Reported Evidence (RRE)	Evidence that should be regularly reported by DNOs as part of the DSO incentive reporting requirements. See Appendix 3.
Regulatory year	has the meaning given to that term in Standard Condition 1 of the Electricity Distribution Licence (Definitions for the standard conditions).
Strategic Innovation Fund (SIF)	has the meaning given to that term in Standard Condition 1 of the Electricity Distribution Licence (Definitions for the standard conditions).
Totex Allowance	means the sum of values under the heading "Totex allowance" in the "Input" sheet of the ED2 Price Control Financial Model.
Transmission System	has the meaning given to that term in Standard Condition 1 of the Electricity Distribution Licence (Definitions for the standard conditions).