

Consultation

RIIO-ED2 Load Related Expenditure volume drivers

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We are consulting on proposed changes to the Load Related Expenditure (LRE) volume drivers. The changes consist of an upward revision to the Low Voltage Services Volume Driver (LVSVD) unit rates; a higher LVSVD ex-ante allowance for all DNOs; a revision to the Secondary Reinforcement Volume Driver (SRVD) cap for one DNO and changes to the reporting metrics for the volume drivers. These changes are proposed to ensure that licensees can invest in their networks to meet net zero, without customers paying for work that is not necessary. It also fulfils our commitment to review the LRE volume drivers within the RIIO-ED2 period.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations).

If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

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Consultation RIIO-ED2 Load Related Expenditure volume drivers**Contents**

1. Introduction.....	5
Purpose of this consultation	5
Context and related publications	6
Consultation stages	7
How to respond	7
Your response, data, and confidentiality	7
How to track the progress of a consultation	8
2. Low Voltage Services volume driver	9
Background	9
LVSVD unit costs	10
LVSVD ex ante allowance	15
LVSVD Cap.....	18
Metric 6: LV unlooping.....	19
3. Secondary Reinforcement volume driver.....	21
Background	21
SRVD unit rates.....	22
SRVD ex ante allowance	22
SRVD Cap.....	24
Metrics 1 - 5.....	25
Joint Method Statement.....	31
4. Other considerations	33
LRE workbook.....	33
Granular Utilisation of Data	33
Implementation	34
Process for evaluating disallowed volumes.....	34
5. Send us your feedback	35
Appendix 1. LVSVD and SRVD metrics – further description.....	36
Metric 1: Transformer utilisation	36
Metric 2a: Transformer capacity released ratio (PMT)	36
Metric 2b: Transformer capacity released ratio (GMT)	37
Metric 3a: LV Circuits length added ratio (LV OHL).....	37
Metric 3b: LV Circuits length added ratio (LV cable)	38
Metric 3c: HV Circuits length added ratio (HV OHL)	38
Metric 3d: HV Circuits length added ratio (HV cable).....	39

Consultation RIIO-ED2 Load Related Expenditure volume drivers

Metric 4: Measured Low Voltage peak demand growth and electricity consumption growth indices 39

Metric 5: Flexibility procured transformer utilisation 40

Metric 6: LV Services Unlooping 41

Appendix 2. Privacy policy 42

Personal data 42

Consultation RIIO-ED2 Load Related Expenditure volume drivers

1. Introduction

This section sets out the purpose of our consultation, context and the proposed process for consulting upon, and subsequently implementing, our proposals.

- 1.1 Network companies are natural monopolies. Effective regulation of privatised for-profit monopolies is essential to ensure they cannot unfairly exercise their monopoly power to the detriment of their customers. This is particularly important in the case of essential utilities, such as energy, where consumers have no choice on whether to pay what they are charged. It is therefore crucial that an effective regulator protects energy consumers by controlling how much network companies can charge their customers. We regulate the monopoly companies in the four energy network sectors: Electricity Transmission (ET), Gas Transmission (GT), Electricity Distribution (ED), and Gas Distribution (GD). Ofgem does this through periodic price controls that are designed to ensure network companies are properly incentivised to deliver the best possible outcomes for current and future energy consumers. This includes ensuring that consumers only pay for investments that are needed and do not overpay for those investments.
- 1.2 The current price control model is known as RIIO (Revenue = Incentives + Innovation + Outputs). RIIO-2 is the second electricity and gas price control under the RIIO model. The RIIO-2 price control period runs from 1 April 2021 until 31 March 2026 for ET, GT and GD. The RIIO-2 price control period for ED sector (RIIO-ED2) runs from 1 April 2023 to 31 March 2028.
- 1.3 In November 2022 we published our RIIO-ED2 Final Determinations for the electricity Distribution Network Operators (DNOs). This set out the key elements of the price control from 1 April 2023 to 31 March 2028. This included an uncertainty mechanism; a Low Voltage Services Volume Driver (LVSVD) and Secondary Reinforcement Volume Driver (SRVD) for Load Related Expenditure (LRE) – collectively referred to as the LRE Volume Drivers. These arrangements are given effect in the Electricity Distribution Licence.
- 1.4 Following a review of the first two years of operation, we are now consulting on proposed changes to the LRE Volume Drivers that we have identified as part of this work that would apply for years 4 and 5 of RIIO-ED2.

Purpose of this consultation

- 1.5 We are consulting on proposed changes that we are minded to make to the:
 - LVSVD unit rates
 - LVSVD ex ante allowances

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- LVSVD cap
 - LVSVD Metric
 - SRVD cap for SP ENW
 - SRVD metrics
- 1.6 These changes are required to ensure that licensees are not a blocker to net zero by having sufficient funding to invest in network capacity and that low carbon technologies do not face installation or operational delays.
- 1.7 The purpose of this consultation is to get stakeholder views on our proposed changes which will inform our final decision.

Context and related publications

- 1.8 In January 2026 the Department for Energy Security and Net Zero (DESNZ) launched its Warm Homes Plan, which will deliver the largest ever public investment to upgrade British homes and cut bills ([Warm Homes Plan - GOV.UK](#)). The Warm Homes Plan aims to improve energy efficiency and decarbonise heat at scale – particularly through insulation upgrades, heat pumps and electrification of homes, which in turn increases and reshapes demand on local electricity networks. The RIIO-ED2 LRE volume drivers provide a mechanism that allows DNOs to efficiently deliver activities such as unlooping supplies, service upgrades and low-voltage reinforcement which increase available capacity and improve voltage quality for individual properties and streets, enabling households to connect low-carbon technologies without delay.
- 1.9 SpC 3.9 (Load Related Expenditure volume drivers) of the RIIO-ED2 licence established the Load Related Expenditure Volume Drivers Governance Document (“the Governance Document”) and the RIIO-ED2 LRE Volume Drivers Workbook (“the LRE Volume Drivers Workbook”). This Governance Document provides information on the reporting requirements and methodologies for the Secondary Reinforcement Volume Driver (SRVD) and the Low Voltage Services Volume Driver (LVSVD) (the “LRE Volume Drivers”). The LRE Volume Drivers will enable relevant LRE allowances to be adjusted during the price control period.
- 1.10 The Governance Document is intended to help licensees fulfil requirements to receive funding under SpC 3.9. It provides information on the accompanying monitoring and reporting framework and should be used by licensees alongside the Regulatory Instructions and Guidance (RIGs) and Regulatory Report Pack (RRP) processes to assist reporting on the use of the LRE Volume Drivers.
- 1.11 The Governance Document sets out a requirement on us to complete a review of the LRE Volume Drivers during the Price Control Period. The review is designed to

Consultation RIIO-ED2 Load Related Expenditure volume drivers

ensure that they are functioning as intended, ie that licensees can invest in the network, or procure flexibility services, to meet net zero, without customers paying for work that is not necessary.

1.12 For the avoidance of doubt, any changes implemented through this review will not automatically roll over into ED3. The mechanisms that exist to support this work from 2028 will be considered separately as part of setting the ED3 price control.

Consultation stages

Stage 1 Consultation open: 27 February 2026.

Stage 2 Consultation closes (awaiting decision). Deadline for responses: 27 March 2026.

Stage 3 Responses reviewed and published: Spring 2026.

Stage 4 Consultation outcome (decision or policy statement): Spring 2026.

How to respond

We want to hear from anyone interested in this consultation. Please send your response to the person or team named on the front page of this document.

We have asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

We will publish non-confidential responses on our website.

Your response, data, and confidentiality

You can ask us to keep your response, or parts of your response, confidential. We will respect this, subject to obligations to disclose information. For example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations, or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you do wish to be kept confidential and those that you do not wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we will contact you to discuss which parts of the information in your response should be kept confidential and which can be published. We might ask for reasons why.

If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law

Consultation RIIO-ED2 Load Related Expenditure volume drivers

following the United Kingdom's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 2.

If you wish to respond confidentially, we will keep your response confidential, but we will publish the number, but not the names, of confidential responses we receive. We will not link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

How to track the progress of a consultation

1. Find the web page for the call for input you would like to receive updates on.
2. Click 'Get emails about this page', enter your email address and click 'Submit'.
3. You will receive an email to notify you when it has changed status.

A consultation has three stages: 'Open', 'Closed (awaiting decision)', and 'Closed (with decision)'.

Consultation RIIO-ED2 Load Related Expenditure volume drivers**2. Low Voltage Services volume driver**

This describes the existing LVSVD volume drivers and our proposed change to the unit rate, ex ante allowance cap and LVSVD metric.

Q1. Do you agree with our choice of option 3 for the calculation of the LVSVD unit rates?

Q2. Do you agree with our proposed LVSVD unit rates?

Q3. Do you agree with our proposed recalculated LVSVD ex ante allowance?

Q4. Do you agree with proposed change to the LVSVD metric?

Background

- 2.1 The LVSVD is designed to fund Proactive Works and Reactive Works relating to LV Service reinforcement, including works associated with “unlooping” of LV Service cables. It covers the following activities: installation of new overhead pole lines – LV Service (OHL); installation of underground cables – LV Service (UG); Works to upgrade switchgear cut outs – Cut Out (metered); works to upgrade switchgear fuses and fuse upgrades.
- 2.2 Looped connections can limit the available electrical capacity, which is crucial for the adoption of low-carbon technologies like heat pumps and electric vehicles (EVs). Unlooping refers to the process of separating shared electricity network connections ("looped" supplies) into individual, direct connections to the main network. Proactive unlooping is the planned, early separation of shared ("looped") electricity supply cables by DNOs between neighbouring properties to provide each home with a dedicated, direct connection. Reactive unlooping is the process where DNOs separate shared electricity service cables ("loops") between neighbouring properties only after a customer request for an upgrade, such as installing an EV charger or a heat pump.
- 2.3 The LVSVD volume driver is used to vary allowances based on set unit costs for the volume of assets reinforced for each activity. The same unit cost applies irrespective of whether the works are proactive or reactive. In each case, the volume measure is the number of each type of activity delivered multiplied by a unit cost, where the specific activities are as follows.
- Overhead pole lines – LV Service (OHL);
 - Underground cables – LV Service (UG);
 - Number Switchgear – Cut Out (metered); and

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- Number Switchgear – Fuse upgrades.
- 2.4 LVSVD unit costs were derived using an industry benchmark approach. For LV services, we combined proactive and reactive costs and volumes to derive a common set of RIIO-ED2 industry median unit costs for each LV service asset category, which were then applied as unit rates within the mechanism.
 - 2.5 Licensees received a notional ex-ante allowance for the whole of RIIO-ED2, set at the start of the Price Control Period and shown in Appendix 3 of SpC 3.9. The notional allowance was calculated as the sum of the projected volumes to be delivered multiplied by the relevant unit rates. The LVSVD will adjust the ex-ante allowances for LV Services (up or down). Allowances are calculated as the sum of the volumes delivered multiplied by the relevant unit rates as set out in SpC 3.9.
 - 2.6 Licensees can spend up to their ex ante allowance without further scrutiny. Once a licensee exceeds its ex ante allowance, it must pass the one LVSVD metric, metric 6. Its purpose is to track whether proactive spend outside pure unlooping remains within a defined tolerable range and that delivered activities match the intended scope for LV services like tackling service level constraints that would otherwise block Low Carbon Technologies (LCT) uptake. It is applied for expenditure above the ex-ante allowance. If the LVSVD metric is not passed, Ofgem can seek an explanation and/or evidence and withhold allowances above the ex-ante allowance for activity outside tolerance or not evidenced as efficient.
 - 2.7 In addition, the total expenditure that can be accessed through the LVSVD is subject to a cap. The cap is individual to each licensee and applies to the whole of the Price Control Period. The value of each licensee’s cap is set out in SpC 3.9.
 - 2.8 Below we set out our views on changes to the LVSVD unit costs, ex ante allowance, cap and metric 6.

LVSVD unit costs

DNO views

- 2.9 Evidence submitted by DNOs identified concerns with how two of the LVSVD unit costs were derived when setting RIIO-ED2 – namely “Overhead pole line – Low Voltage Service (overhead line) additions” (“OHL”) and ‘Cable – Low Voltage Service (underground cable) additions’ (“UG”). This has resulted in an under-recovery by DNOs of the costs incurred.
- 2.10 For the RIIO-ED2 submission, most DNOs generally forecast one service installation per property unlooped. However, NGED and SP ENW forecast one service installation per two properties unlooped, so forecast volumes were

Consultation RIIO-ED2 Load Related Expenditure volume drivers

doubled. This halved the unit costs of service installation of five DNO areas and distorted the industry median unit cost.

2.11 Work done by the DNOs indicates that if benchmarking had been based upon service installation cost for all DNOs, the median benchmark unit costs would be higher for OHL services and for UG service.

2.12 DNOs also argue that limited data was used to derive the ED2 unit costs and it has since become apparent that there are additional works required as driven by the location of the existing service and/or meter position, the location of the LV main, and/or customer requirements for the installation of a new service.

2.13 The DNOs conducted collaborative work and identified several typical scenarios where additional works have been required. They provided evidence of additional costs that are frequently incurred due to the location of the existing service or meter position and/or customer requirements for the installation of a new service.

2.14 Consequently, DNOs have recovered only £77.26m of the £104.05m spent on LVS in 2023/24 and 2024/25. Even if the inconsistency in the derivation of LV Service unit costs is corrected for, DNOs say there would still be an under-recovery related to LV underground service installation.

Figure1 under-recovery related to LV UG service installation (source: ENA analysis)



2.15 The graphic above shows the DNOs total LSVD allowance for years 1 and 2 of the current price control period and how much they have spent based on the existing unit costs and by how much they are underfunded. It also shows how much they would be underfunded for if the inconsistency in the derivation of LV Service unit

Consultation RIIO-ED2 Load Related Expenditure volume drivers

costs was corrected for. If the unit rates were adjusted for the inconsistency, they would recover a higher amount, £95.68m.

Our view

- 2.16 Based on the evidence provided by the DNOs through the working group and a subsequent Request for Information, we agree that there is a case for revising the unit costs. We support the view that there is an inconsistency in how the original unit costs were calculated and note the DNOs' comments on additional works being required that were not accounted for at the time the unit cost was set.
- 2.17 Maintaining the status quo and subsequent under-recovery creates the risk that DNOs are incentivised to reduce or defer volumes, prioritising only unavoidable work, rather than driving genuine efficiency improvements. Low volumes will hinder the ability for DNO's to support the delivery of net-zero by slowing down the electrification of heat and transport.

Options for change

- 2.18 We commissioned consultancy support from CEPA to support our review of the LVSVD unit rates and carry out the process to identify new unit rates.
- 2.19 We asked CEPA to assess four shortlisted options for updating the LVSVD unit rate:
- **Option 1:** use current rate: maintain the existing ED2 unit rates for OHL and UG services (no recalculation or updates);
 - **Option 2:** use updated methodology rate: apply the ED2 methodology on a consistent per-addition basis by removing the volume-doubling treatment for SP ENW and NGED with no other changes;
 - **Option 3:** use ED2 outturn rate: estimate unit rates using ED2 Years 1-2 outturn costs and volumes as reported by DNOs, and, consistent with Option 2, do not apply the SP ENW/NGED volume-doubling treatment. This includes making cost and volume adjustments for outliers; and
 - **Option 4:** use DNO forecast rate: set unit rates using DNO forward-looking forecast unit costs (based on company submissions and supporting evidence).
- 2.20 The proposed unit costs under options 1 – 3 are set out in Table 1 below. Further detail on the assessment of the options can be found in the accompanying report from CEPA 'Review of Unit Costs for LV Service Volume Drivers' published alongside this consultation.
- 2.21 We do not present forecast-based unit costs (Option 4) as we do not support this option. Not all DNOs provided forecast data in response to the RFI, meaning a robust benchmark cannot be derived. Further work would also be required to

Consultation RIIO-ED2 Load Related Expenditure volume drivers

ensure all DNOs are using consistent assumptions which we do not consider would be proportionate at this time.

Table 1: OHL unit costs by option (£k, 2020/21 prices)

Company	(Option 1) Current UC	(Option 2) Updated methodology UC	(Option 3) ED2 outturn UC
Median	0.35	0.44	1.44

*Individual unit costs for DNOs have been redacted.

Table 2: UG unit costs by option (£k, 2020/21 prices)

Company	(Option 1) Current UC	(Option 2) Updated methodology UC	(Option 3) ED2 outturn UC
Median	1.60	2.21	2.65

*Individual unit costs for DNOs have been redacted.

2.22 For OHL services, going from Option 1 to 2 only results in a modest increase in the median unit cost, from £0.35k to £0.44k per addition. By contrast, estimating unit costs using ED2 Y1-Y2 outturn data (Option 3) increases the median to £1.44k, ie, more than a threefold uplift relative to the updated methodology rate. The pattern is consistent with the narrative in DNO RFI responses, which indicated that LV service delivery has required additional works relative to the Final Determination (FD) assumptions. This points to a material gap in cost reflectivity if current rates are retained.

2.23 For UG services, the methodological choice has a larger absolute impact than for OHL services, but a smaller proportional impact. Moving from Option 1 to 2 increases the median unit cost from £1.60k to £2.21k. Using ED2 outturn data (Option 3) increases it further to £2.65k.

2.24 The work carried out by CEPA assessed the four options against four criteria:

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- 1) Methodological coherence: Are unit costs derived on a consistent and correct basis?
- 2) Cost reflectivity and incentives for cost efficiency: Do the unit rates reflect efficient delivery costs likely to be incurred, while providing appropriate efficiency pressure (i.e., stretching but achievable)?
- 3) Delivery incentives and volume efficiency: Does the approach encourage delivery of the right activities and volumes (including proactive work), avoiding systematic under-delivery and/or inefficient over-delivery?
- 4) Evidence quality and proportionality: Is the approach evidence-based and replicable using available data, transparent to stakeholders, and proportionate to implement?

2.25 The main findings from the CEPA work are that the methodology to set unit rates for OHL and UG should be updated for ENWL and NGED to reverse an adjustment made in the FD calculation that created an inconsistency between the unit cost (per property) and unit rate (per addition); and that the ED2 outturn costs to date appear to be materially higher than forecast costs.

2.26 Based on the work carried out by CEPA we are therefore minded to adopt Option 3, ie the ED2 outturn rates. It uses realised ED2 costs to calibrate the unit rates, thereby reflecting additional work that was not fully captured in RIIO-ED2 Final Determinations. This improves cost reflectivity and, in turn, mitigates one of the principal risks identified in this review: that an under-calibrated unit rate discourages delivery, particularly of proactive activity. We consider that implementation is also relatively straightforward. It corrects the inconsistency previously identified with the SPN ENW and NGED submission. However, we would like further assurance on the reliability of outturn unit cost data to enable us to adopt Option 3 rather than option 2. This includes:

- assurance from DNOs on their cost allocation methodology. This would ensure greater confidence and mitigate the risk of any outliers skewing the median unit cost.
- a more in-depth supporting narrative in relation to ED2 outturn costs and volumes. This could include evidence to support an explanation of what has been driving higher outturn costs relative to the current unit rates.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- an explanation of the mix of reactive and proactive delivery in outturn data compared to during the remainder of ED2. Reactive interventions are typically more expensive than proactive works due to site-specific complexity, whereas proactive programmes can often be planned and standardised. If ED2 delivery to date is weighted towards reactive activity (as some DNOs report limited proactive programmes), this may increase the outturn-based unit cost (Option 3). That, in turn, can affect incentives for the remainder of ED2: a higher unit rate may reduce the risk that proactive volumes are deferred due to under-recovery, but it may also reduce the incentive to move delivery towards lower-cost proactive interventions if the unit rate is driven by a more expensive reactive mix

2.27 We considered a hybrid solution where we apply option 2 to the OHL unit cost and option 3 to the UG unit cost. This is because of concerns with the ED2 outturn costs for OHL being based on low volumes of work and therefore at risk of being skewed by particularly high-cost and low frequency work. However, we remain minded to use option 3, subject to the assurances above, for both given the small proportion (1-2%) that OHL costs contribute to the overall forecast expenditure and the risk that DNOs may prioritise only unavoidable delivery and defer discretionary activity. We also note that consumers are protected from inefficient increases in spend by both the LVSVD metric and the overall cap.

LVSVD ex ante allowance

DNO view

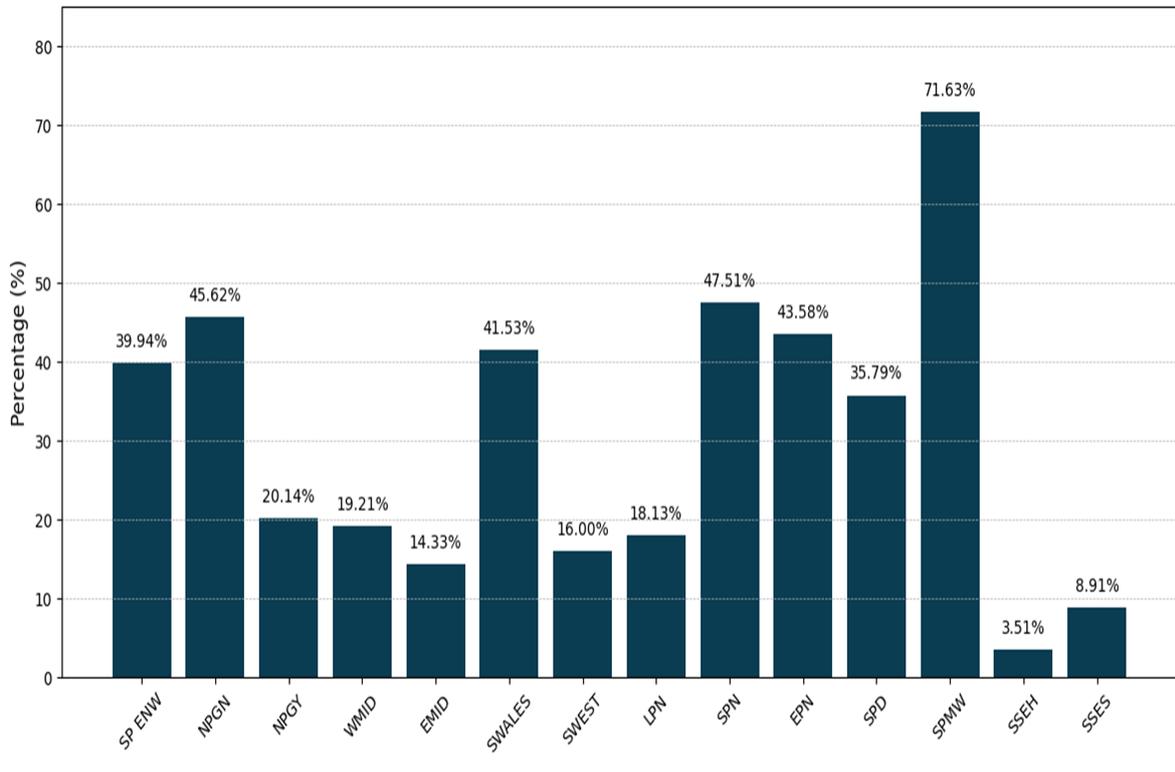
2.28 DNOs have proposed that if the LVSVD unit rates are updated, the ex-ante allowance should be increased, as the allowance was set using the original unit costs, and therefore the metrics would apply at an earlier point.

Our view

2.29 While Figure 2 shows that no DNO has spent its 5-year ex-ante allowance within the first two years of RIIO-ED2, the percentage that some DNOs have spent so far suggests that the allowances need to be recalibrated.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

Figure 2 Percentage of ex ante allowance spent in Years 1&2 (source: DNO regulatory reporting submissions)



2.30 The above bar chart shows the percentage of the total ex ante allowance for the five years of the price control that has been spent by DNOs in years 1 and 2 of the price control period. The percentages spent by licensee are as follows:

- SP ENW: 39.94%
- NPGN: 45.62%
- NPGY: 20.14%
- WMID: 19.21%
- EMID: 14.33%
- SWALES: 41.53%
- SWEST: 16.00%
- LPN: 18.13%
- SPN: 47.51%

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- EPN: 43.58%
- SPD: 35.79%
- SPMW: 71.63%
- SSEH: 3.51%
- SSES: 8.91%

2.31 We do agree that if there is a correction or recalculation of LVSVD unit costs, these should be reflected in the ex-ante allowance. Even though most allowances have not yet been spent, this would otherwise create the potential for clawing back funds sooner than would have been the case. This may disincentivise DNOs from carrying out work that would otherwise take place and or prioritising only unavoidable, reactive works.

2.32 We set out our recalculation of the ex-ante allowances below, based on the different options in Table 3.

Table 3: Recalculated ex-ante allowances based on options

Allowed expenditure, £m	Ex-ante allowance	Option 1	Option 2	Option 3
SP ENW	13.48	15.33	18.09	20.12
NPGN	21.30	22.54	27.29	30.81
NPGY	36.08	32.62	40.93	47.08
WMID	17.63	12.75	15.33	17.24
EMID	19.75	13.64	16.62	18.83
SWALES	6.13	5.46	6.55	7.36
SWEST	8.66	6.73	8.17	9.25
LPN	3.40	2.58	3.24	3.73
SPN	4.57	4.62	5.27	6.56
EPN	5.15	4.08	4.85	6.39
SPD	34.68	35.50	41.59	46.10
SPMW	19.92	24.96	28.43	30.99

Consultation RIIO-ED2 Load Related Expenditure volume drivers

Allowed expenditure, £m	Ex-ante allowance	Option 1	Option 2	Option 3
SSEH	5.19	2.72	3.30	3.75
SSES	7.88	5.24	6.31	7.17
Total	203.83	188.77	225.97	255.38

LVSVD Cap

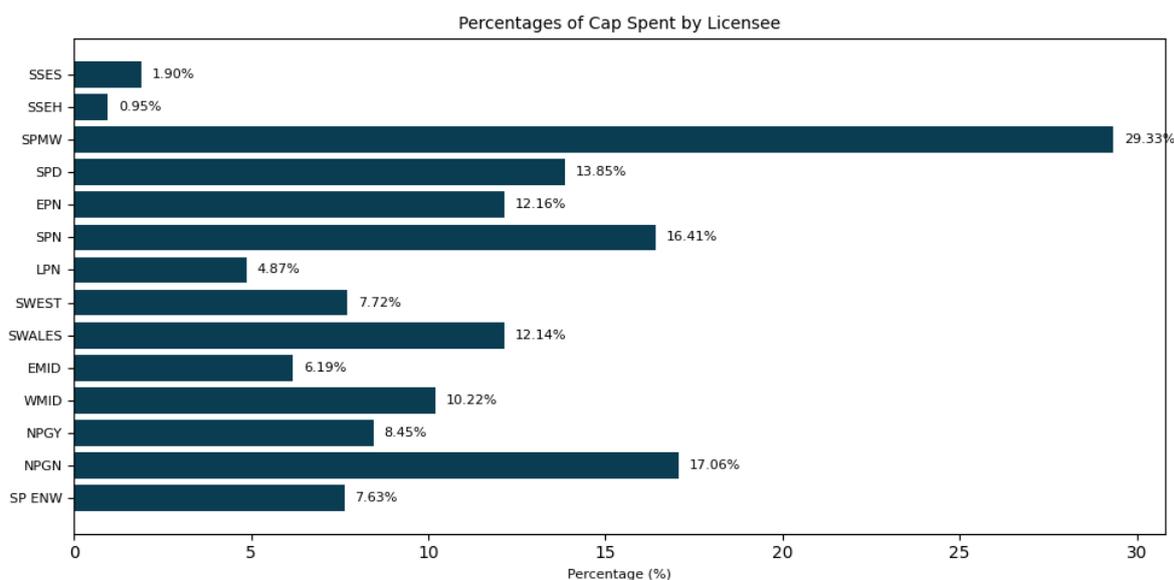
DNO view

2.33 One DNO said that the cap level should be revisited to ensure they are set appropriately to avoid potentially inhibiting reinforcement.

Our view

2.34 Figure 3 shows that no DNO has spent up to the LVSVD cap within the first two years of RIIO-ED2, with all but one licensee having spent less than 18%.

Figure 3: Percentages of cap spent by licensee (source: DNO regulatory reporting submissions)



2.35 The above bar chart shows the percentage of the total cap for the five years of the price control that has been spent by DNOs in years 1 and 2 of the price control period. The percentages spent by licensee are as follows:

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- SP ENW: 7.63%
- NPGN: 17.06%
- NPGY: 8.45%
- WMID: 10.22%
- EMID: 6.19%
- SWALES: 12.14%
- SWEST: 7.72%
- LPN: 4.87%
- SPN: 16.41%
- EPN: 12.16%
- SPD: 13.85%
- SPMW: 29.33%
- SSEH: 0.95%
- SSES: 1.90%

2.36 We have not seen compelling evidence that DNOs are likely to breach the LVSVD cap during the remainder of RIIO-ED2 and are not minded to make a change. The evidence shows that there should be sufficient headroom for the current control period for DNOs. We also believe that the cap should be retained, as it protects consumers from excessive (and possibly inefficient) spend.

Metric 6: LV unlooping

2.37 Metric 6 (the LV Services Unlooping metric) is designed to control against sub-optimal proactive reinforcement of LV Services assets.¹ The metric checks that LV Service cables (overhead pole lines and cables), fuse upgrades and cut outs (metered) are only being proactively reinforced when a property is being unlooped. A tolerance of 20% is permitted, with any deviation above that meaning that the check will not be passed. Metric 6 is the only one applicable to the LVSVD.

¹ All metrics are described in detail in Appendix 1.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- 2.38 If the cumulative LVSVD spend is above the LVSVD ex ante allowances and a DNO does not pass the metric, we will review costs, volumes, and additional information submitted by the licensee and may disallow some of the spend to be clawed back if there is sub-optimal expenditure.
- 2.39 In relation to LV service proactive works; if the number of i) LV Service overhead pole lines and LV Service cables, ii) cut outs (metered), or iii) fuse upgrades exceeds the number of properties unlooped by more than 20% then the check will not be passed, which means there is a risk that volumes may be disallowed.

DNO view

- 2.40 DNOs argue that some operate standalone programmes to replace historically installed small rating cut outs, which are not always associated with looped services. DNOs propose increasing the exceedance threshold for the number of properties unlooped or retiring the metric altogether to ensure that these programmes should continue. Data from DNOs to date showed that two DNO's went above threshold of 20% (WMID by 30% for cut-out and fuse upgrades, and SPENW by 22% for cut-out).

Our view

- 2.41 We believe that an adjustment should be made to the metric to ensure that DNOs are not disincentivised from carrying out these proactive programmes. We are not in favour of retiring the metric as there is risk that there could be inefficient spend or unnecessary works carried; and customers would bear unjustified costs.
- 2.42 We propose there should be an upwards adjustment to the metric threshold to remove the risk that standalone programmes could be unfairly penalised under the current metric design. Specifically, we propose that the number of properties unlooped exceedance threshold should increase by 40% for the check to be passed. This should ensure sufficient headroom based on the evidence we have seen so far and mitigate against DNOs being unnecessarily penalised for delivering works that support LCT ambitions while maintaining network safety.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

3. Secondary Reinforcement volume driver

This describes the existing SRVD drivers, our proposed changes to the metrics and proposed changed to the SP ENW SRVD cap.

- | | |
|-----|---|
| Q1. | Q1. Do you agree with our proposed changes to the SRVD metrics? |
| Q2. | Q2. Do you agree with our proposal to change the SRVD Cap for SP ENW? |

Background

- 3.1 The SRVD funds certain activities that are required to manage load related capacity constraints affecting substations and circuits on the secondary distribution network at voltages up to 22kV. The activities in scope for the SRVD are the reinforcement of ground mounted and pole mounted transformers; the reinforcement of overhead lines and underground cables and the use of flexibility services to defer reinforcement of either transformers, overhead lines or underground cables (or any combination of these).
- 3.2 The purpose of the SRVD is to fund reinforcement works (or flexibility services) for assets that are highly utilised. For transformers, the threshold for the SRVD is where utilisation is above, or forecast to be above, 100%. Assessment of transformer utilisation is based on a forecast of the year ahead.
- 3.3 The SRVD mechanism is used to vary allowances based on set unit costs for the following secondary reinforcement activities:
- Substations: MVA gross additions for pole mounted transformers (PMTs) and ground mounted transformers (GMTs).
 - Circuits: km additions for overhead pole lines (OHL) and underground cables, with separate unit costs for each, by voltage level (HV and LV)
 - Flexibility services: gross deferred secondary reinforcement in substations (MVA) and/or circuits (km).
- 3.4 Licensees received an ex ante secondary reinforcement allowance for the whole of RIIO-ED2, set at the start of the Price Control Period and is shown in Appendix 3 of SpC 3.9. The SRVD will adjust the total ex ante allowances for Secondary Reinforcement (up or down). Allowances are calculated as the sum of the volumes delivered multiplied by the relevant unit rates as set out in SpC 3.9. The allowance is a notional allowance. If the ex-ante allowance is exceeded, the licensee must then pass the SRVD metrics.
- 3.5 Five metrics are included in the monitoring and reporting package for the SRVD, to help guard against sub-optimal investment, above ex ante funding levels. These are as follows:

Consultation RIIO-ED2 Load Related Expenditure volume drivers

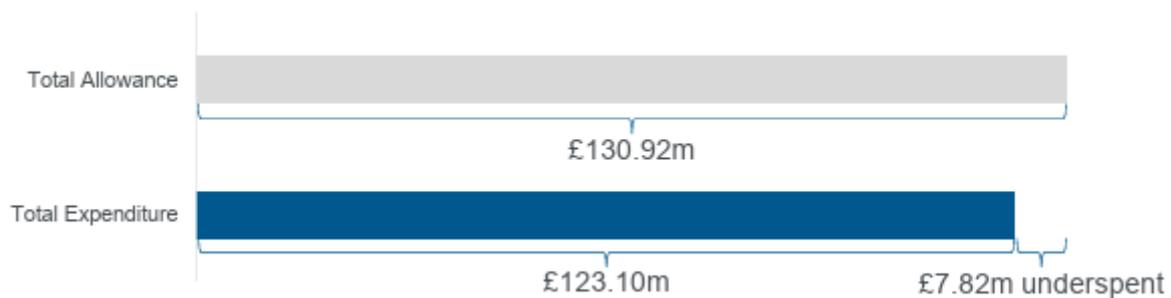
- Metric 1: Transformer utilisation:
- Metric 2: Transformer capacity released ratio
- Metric 3: Circuits length added ratio
- Metric 4: Measured Low Voltage Peak Demand Growth and Electricity Consumption Growth Indices
- Metric 5: Flexibility procured transformer utilisation

SRVD unit rates

DNO view

3.6 Analysis by the DNOs shows that the allowance is broadly in line with expenditure to-date. There is some variance across the asset types, but the analysis indicated that there was no significant variance or driver for revising unit costs.

Figure 4: SRVD allowance and expenditure in first two years of RIIO-ED2 (source: ENA analysis)



3.7 The graphic above shows the DNOs total SRVD allowance of £130.92m for years 1 and 2 of the price control and how much they have spent for years 1 and 2 of the price control. They have spent £123.10m for years 1 and 2 with an underspend of £7.82m.

Our view

3.8 We have not seen any evidence that there are issues with the SRVD unit rates and therefore we are not proposing to revise them.

SRVD ex ante allowance

DNO's view

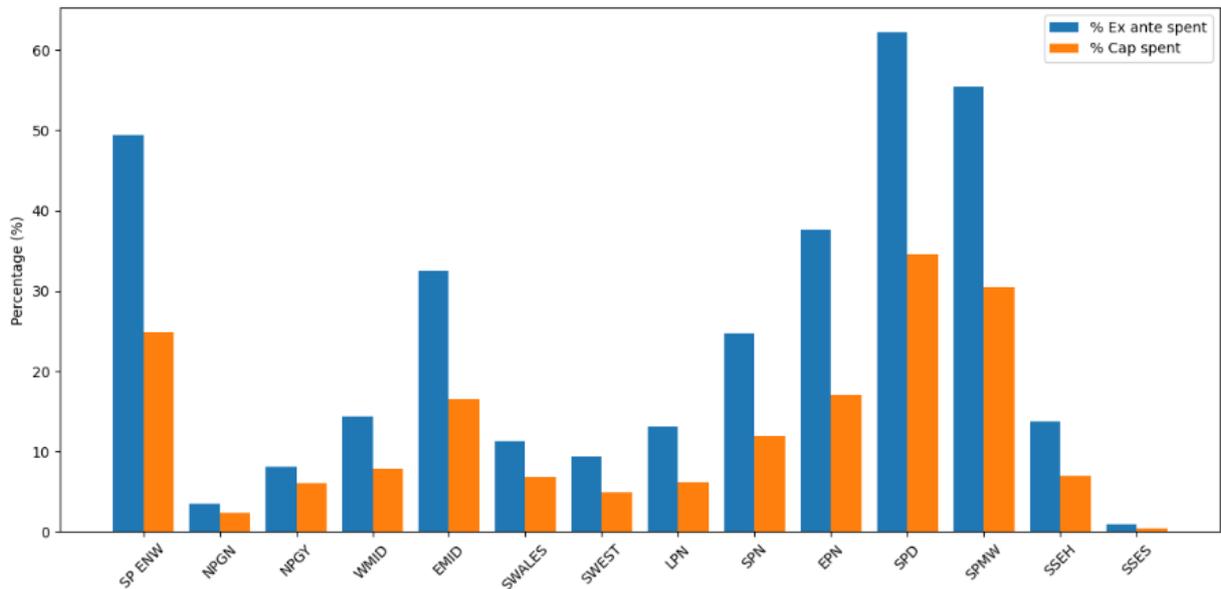
3.9 DNOs have not proposed any changes to the SRVD ex ante allowance.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

Our view

3.10 We note that DNOs are closer to exhausting their ex-ante allowances than with the LVSVD ex ante allowance (see figure 5 below), which places more emphasis on the effectiveness of the metrics as they would be used as the evidence to support any claw-back of funds. However, we are not proposing any changes to the SRVD ex ante allowance as we are not planning to review the unit rates.

Figure 5 Percentage of SRVD Ex Ante Allowance and Cap spent for Years 1 and 2



3.11 The bar chart above shows what percentage each DNO has spent of their SRVD ex ante allowance and cap for years 1 and 2 of the current price control period. The percentages spent by licensee are as follows:

- SP ENW: allowance 49.42%, cap 24.92%
- NPGN: allowance 5.42%, cap 3.07%
- NPGY: allowance 12.32%, cap 8.22%
- WMID: allowance 14.41%, cap 7.83%
- EMID: allowance 32.58%, cap 16.49%
- SWALES: allowance 11.30%, cap 6.81%
- SWEST: allowance 9.44%, cap 4.87%
- LPN: allowance 13.10%, cap 6.17%
- SPN: allowance 24.75%, cap 11.89%

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- EPN: allowance 37.67%, cap 17.02
- SPD: allowance 62.17%, cap 34.58%
- SPMW: allowance 55.39%, cap 30.44%
- SSEH: allowance 13.80%, cap 6.93%
- SSES: allowance 0.94%, cap 0.43%

SRVD Cap

DNO view

3.12 DNOs, apart from SP ENW, did not propose any specific changes to the SRVD cap.

3.13 In the 2025 LRE Re-opener submissions, SP ENW made a request for additional allowances of £201.6m. SP ENW presented views regarding the limitations of current LRE volume driver and associated metrics relating to the ‘opportunistic upsizing of transformers’ and the ‘splitting of HV feeder networks with more than 2500 customers’, where it requested additional funding for the two programmes in our LRE re-opener submission.

Our view

3.14 We have not seen compelling evidence that DNOs, other than SP ENW are likely to breach their SRVD cap. The evidence shows that for the cumulative spend for 2023/24 and 2024/25 DNOs under the cap. We do not therefore currently consider that there is a case for changing the cap for all DNOs (see figure 5 above).

3.15 In December 2025, we published our RIIO-2 Re-opener Applications 2025 Final Determination, stating that the issues raised by SP ENW should be considered in a broader context and with all DNOs through the Year 3 review of the volume driver mechanisms.

3.16 SP ENW subsequently requested that the cap be revised. Given this, we consider that for the SRVD volume driver to operate as intended, we propose that the SP ENW SRVD cap should be increased to accommodate the additional activity, noting that the additional investments were always eligible to be accommodated by the volume driver. In particular, the costs associated with transformer upsizing and HV feeder splitting set out should be reflected in an uplift to the SRVD cap to ensure the mechanism is able to support efficient delivery of the reinforcement requirements the re-opener final determination has assigned to it.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

3.17 We set out the proposed calculation for the revised SP ENW SRVD cap below in Table 4.

Table 4: Calculation for Proposed revision of the SP ENW SRVD Cap

Transformer Upsizing - (232 transformers, average capacity added 250kV)

232 x 0.25MVA x 63,247 (£/MVA from licence)

Adjustment = £.3.7m

HV Feeder Splitting

Adjustment = £9.4m

Total Adjustment = £13.1 (Transformer upsizing and HV Feeder splitting)

3.18 The adjusted cap would be £52.3m, an increase of £13.1 on the existing cap of £39.2m.

3.19 DNOs can submit further evidence if they believe that a change should be required to their own caps.

Metrics 1 - 5

3.20 Five performance metrics are used to protect customers against unjustified costs arising from sub-optimal investment in the network. This is achieved by each metric identifying whether DNOs are exhibiting unexpected behaviour, eg increasing investment when LCT demand is less than expected or reinforcing a high proportion of low utilised assets.

3.21 DNOs provide annual information which is used to track their performance against these metrics. Where DNO expenditure is within ex ante allowances for secondary reinforcement, the results from the metrics will not lead to withholding of allowances. If, having exceeded its ex ante allowance, a DNO does not pass all the metrics, we will initiate a review of costs, volumes, and additional information submitted by the DNOs. This review could lead to allowances incurred above the ex ante allowance being disallowed, on the basis they are inefficient, unless we see strong justification as to why the expenditure was required.

3.22 DNOs have identified potential issues with the metrics. They believe that the metrics as currently designed could have some unintended consequences and in instances risk disincentivising DNOs to proactively reinforce the network. Based

Consultation RIIO-ED2 Load Related Expenditure volume drivers

on the likely risks, we agree that that some changes may be necessary to ensure that the metric work as intended.

3.23 The reason for revision to metrics covers the broad themes of:

- Time horizon for metrics – whether it is an overall ED2 view rather than annual view, to provide a better view of overall investment
- Tolerance level calibration
- Recognising that the use of forecast indicators (LCT and longer-term forecast loading) is better than lagging indicators (LCTs installed) which promotes a much more ‘just-in-time’ approach.

Time horizon for metrics

DNO’s Views

3.24 The DNOs have suggested that all metrics should consider an overall ED2 position and not annual / year-to-date. They argue that the phasing of delivery activities and the timing of associated reporting mean that annual or year to date assessments can present a misleading picture. Whilst an annual view can be useful data and be a helpful indicator, it is only representative of a snapshot in time and does not capture a broader view reflecting the timing of reinforcement delivery. Moreover, it relies on datasets which may be incomplete and re-stated (such as LCT installs) and is misaligned with Distribution Future Energy Scenarios (DFES) based planning.

Our view

3.25 We agree that a longer-term view would provide a more accurate, stable and fair assessment of performance. Carrying out an assessment on a 5-year basis would provide a more holistic and representative view of performance across the entire investment cycle.

3.26 We also believe that such an approach would align better to the operation of the LRE volume drivers, for the following reasons:

- In the RIIO-ED2 LRE Volume Drivers Governance Document, the definition of “LVSVD Ex Ante Allowances” is “means the total initial ex ante allowance for LVSVDt, over the Price Control Period.
- In the RIIO-ED2 LRE Volume Drivers Governance Document, the definition of “SRVD Ex Ante Allowances” is “means the total initial ex ante allowance for SRVDt, over the Price Control Period.
- In Appendix 3 of SpC 3.9, both SRVD and LVSVD ex ante allowances are expressed as just the total over the entire RIIO-ED2 period.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

3.27 We therefore propose that all metrics should consider an overall ED2 position and not an annual / year-to-date position.

Tolerance level calibration

Metric 1, Metric 2 and 3

3.28 Metric 1 is a transformer utilisation metric that assesses Pole Mounted Transformer (PMT) and Ground Mounted Transformer (GMT) capacity added. It is designed to control against sub-optimal reinforcement of transformers. The metric checks that reinforcement activities, funded through the SRVD, are occurring within areas where transformer utilisation is above, or forecast to be above, 100%. Where transformation utilisation is below 100%, DNOs are allowed to fund up to 10% in capacity additions for the reinforcement of transformers to account for situations where it is justified, or necessary for safety reasons. Where the cumulative SRVS spend is above the ex ante allowances and a DNO does not pass the metric, we will review costs, volumes, and additional information submitted by the licensee and may disallow some of the spend to be clawed back due to sub-optimal expenditure.

3.29 Metrics 2 and 3 assess whether capacity added, and circuits added, are proportional to changes in LCT volumes, each with a 10% tolerance band. As metric 1, where the cumulative SRVS spend is above the ex ante allowances and a DNO does not pass the metric, we will review costs, volumes, and additional information submitted by the licensee and may disallow some of the spend to be clawed back due to sub-optimal expenditure.

DNO's views

3.30 DNOs have raised concerns that the current tolerance bands are set too narrowly for Metric 1. Since the ED2 volume drivers and its monitoring package were implemented, they state that there has been significant government driven developments which in turn affect what DNOs need to deliver to support. They argue that to align with the critical pathways of Clean Power 2030 and Net Zero 2050, it is key to ensure DNOs are not disincentivised for futureproofing the network where it is justifiable. They believe that the current tolerance bands are set too narrowly, resulting in the risk that DNOs could be disincentivised in delivering proactive works that provide value. They argue that wider tolerance bands would enable them to further optimise investment programmes such as undertaking reinforcement alongside asset replacement or strategic redesign of network instead of piecemeal replacement, thereby improving efficiency and reducing customer inconvenience.

3.31 Under the current design:

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- The assessment horizon is limited to one year forward, despite transformer investments being long lived assets.
- The metric does not sufficiently differentiate between genuinely premature reinforcement and efficient anticipatory investment driven by wider system considerations.
- It creates a perverse incentive for DNOs to act only when assets are close to, or already, overloaded; hence introducing unnecessary risk to networks, customers and staff. The metric therefore risks constraining efficient solutions rather than targeting inefficient ones.

3.32 One of the key potential unintended consequences of the low tolerance band is its interaction with other DNO activities. In practice, DNOs note they frequently face scenarios where:

- An existing transformer is due for replacement for condition or asset health reasons; and
- Forecast utilisation indicates that a like for like replacement will become overloaded within a short period (e.g. 2-3 years), driven by LCT uptake or local demand growth.
- Under the current tolerance regime, DNOs are effectively incentivised to:
 - Replace the asset on a like for like basis to remain compliant with the utilisation metric, and then
 - Return shortly afterwards to upsize or reinforce the transformer when utilisation breaches 100%.

3.33 The metric also fails to account for new builds/substations or non-thermal drivers within the scope of CV2 Secondary Reinforcement, such as security of supply constraints or voltage uprating. The narrow tolerance band essentially restricts this.

3.34 Both Metrics 2 and 3 calculations currently overly rely on actual LCT volumes, which are lagging indicators and are often incomplete datasets. DNOs, say that if forward looking indicators were used that would help ensure infrastructure is ready for communities adopting LCTs and progressing towards Net Zero. They argue that a mismatch between actuals reported and network forecast models mean that tight tolerance bands risk unduly prohibiting efficient reinforcement. They also state that the metrics also overlook non-thermal drivers within CV2 Secondary Reinforcement, such as security of supply constraints and voltage uprating. Furthermore, reinforcement needs differ significantly between rural and urban networks, and the separation of transformer and circuit metrics does not recognise efficiencies from alternative reinforcement solutions (e.g., replacing long circuits with a new substation). Coordinated works, such as LVUGC undertaken alongside unlooping, also are not reflected. Given these complexities,

Consultation RIIO-ED2 Load Related Expenditure volume drivers

they argue metrics do not sufficiently support investment ahead of need, resulting in the risk of delivery of projects.

Our view

3.35 We agree that there is a risk that tight tolerance bands could have an impact in the delivery of investment programme that would enable DNOs to further optimise investment programmes such as undertaking reinforcement alongside asset replacement or strategic redesign of network instead of piecemeal replacement, thereby improving efficiency and reducing customer inconvenience.

3.36 Retaining the current tolerance band could increase total consumer cost due to duplicated works, causes additional network disruption and could be operationally inefficient. A wider tolerance band would allow DNOs to capture legitimate synergies between asset replacement and reinforcement, enabling right sizing of transformers at the point of intervention even where utilisation is forecast to exceed 100% within a reasonable timescale beyond the one-year assessment window.

3.37 We propose two revisions to Metric 1, 2 and 3:

- Incorporating a longer-term forecast (rather than year ahead utilisation) of a rolling 5-year forecast (e.g. 2027 against 2032 forecast, 2028 against 2033 forecast)
- Given there is a recognition that the current reinforcement band may be too tight to enable the capture the synergies between replacement and reinforcement, increasing the tolerance band from 10% to 25% should provide more of an incentive to do proactive work and better support timely, justified interventions that maintain network safety, facilitate load growth and LCT uptake, whilst continuing to protect customers from inefficient or unjustified costs.

Metric 5 flexibility procured transformer utilisation

3.38 The flexibility procured transformer utilisation metric is designed to check that flexibility is only being procured in situations where transformer utilisation is above, or projected to be above, 100%. There is no tolerance band.

DNO's View

3.39 The DNOs argue that, as with Metric 1, this encourages short term behaviour, that could push DNOs to act only when assets are close to or already overloaded.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

Our view

3.40 The 100% utilisation threshold may be inconsistent with DNOs' flexibility policies and risk appetite and constrain the opportunities to stimulate the market.

3.41 We propose to reduce the utilisation threshold from 100% to 90% and introduce a 25% tolerance band. This would better reflect the use of flexibility where transformers are forecast to be overloaded or where flexibility is procured for operational reasons to alleviate secondary network constraints.

Longer-term forecasts (metrics 1, 2a, 2b, 3a 3b,3c and 3d)

Metric 1 currently assesses year-ahead transformer utilisation, while Metrics 2 and 3 rely on actual volumes of electric vehicles (EVs) and heat pumps. For metric 1 transformer utilisation is based on a forecast of the asset's utilisation for a Regulatory Year ahead, ie to the 31 March immediately after the annual RRP submission. For metrics 2 and 3 actual EV and HP volumes are used.

DNOs Views

3.42 The DNOs argue that for Metric 1, limiting the measure to year-ahead utilisation does not incentivise them to make more strategic and efficient investments that deliver capacity.

3.43 They argue that for Metrics 2 and 3, using actual EV and HP volumes does not incentivise timely investment to accommodate forthcoming LCTs, as these volumes are inherently lagging measure the result of past actions rather than forward-looking signals.

3.44 They argue that there are several justifications for using longer-term forecasts, that include:

- Reinforcement activity does not always occur in the same year as the LCT additions that ultimately drive the need for capacity.
- HV and LV cable installations, new substation builds / substation upgrades, and feeder reinforcement are planned and executed based on forecasted LCT growth and accepted connections activity and not necessarily the in-year additions captured in the metrics. As a result, in-year ratios artificially deflate efficiency depending on the timing mismatch.
- Metrics 2 and 3 rely on the calculated peak load contribution of new LCTs. These calculations depend on datasets that are incomplete at year ends, lagging, or reliant on modelling assumptions.
- The LCT addition volumes used in the metrics do not align with published Distribution Future Energy Scenarios (DFES) figures, which formed the basis of the original calculations and are used for:

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- network planning
- investment justification
- ED2 load related reinforcement strategies

Our View

3.45 We propose moving to the use of a longer-term forecast that incentivises DNOs to make more strategic and efficient investments that deliver capacity in time for when customers need it. This would ensure the metrics represent the pace that need to take today and investment ahead of need and the growing emphasis from Government and expectations for connection of future LCTs and initiatives such as the warm homes plan and ensuring that they are a good indicator of efficiency. We believe that a 5-year forecast for both forecast transformer utilisation (for Metric 1) and forecast LCT volumes (for Metrics 2 and 3) would be more appropriate. This would ensure a smooth transition to ED3 where focus will be investing ahead of need, and to align with the critical pathways for Clean Power 2030 and Net Zero 2050, as well as NESO's RESP trajectories.

Joint Method Statement

3.46 Licensees must develop a joint method statement that ensures that transformer utilisation is measured consistently across licensees. The method statement must be independently audited to confirm that the methodology is appropriate and can be applied consistently by all licensees. This will include validation of:

- the source data used.
- modelling and calculations being based on the source data correctly,
- final outputs being correctly recorded; and
- final outputs providing a consistent measure of utilisation as defined in the method statement.

3.47 In addition, the independent audit was required to be completed before July 2024 to enable reporting for the first Regulatory Year of the Price Control Period.

Our view

3.48 We have confirmed that the review of the joint method statement has been completed and all requirements set out in the governance framework have been met. Specifically:

- A joint method statement has been developed collaboratively by licensees to ensure consistency in measuring utilisation.
- An independent audit has been undertaken and confirmed that:

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- The methodology is appropriate and can be applied consistently across all licensees;
- Source data has been validated for accuracy and completeness;
- Modelling and calculations are correctly based on the validated source data;
- Final outputs are accurately recorded and provide a consistent measure of utilisation as defined in the method statement; and
- The audits were completed prior to July 2024, in line with the requirement for reporting commencement.

3.49 We are therefore content that all the requirements in the Governance Document related to the joint method statement have been met.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

4. Other considerations

This section sets out our current views on other aspects of the LRE volume drivers including the LRE Workbook, granular utilisation of data and how we will implement any changes we decide to make.

LRE workbook

- 4.1 Licensees report on the five SRVD metrics and the LVSVD metric using the LRE Volume Drivers Workbook as part of the annual RRP process. Ofgem then reviews the information between July and November of that Regulatory Year.
- 4.2 DNO's have expressed concerns about the separate submission of the LRE Volume Drivers Workbook, as the data in the Workbook is contained within existing Annex B cost and volume and memo tables, therefore the separate Workbook submission duplicates data and increases the risk of manual error.
- 4.3 It has been proposed that instead of providing the Volume Driver Workbook separately, it should form part of the RIGs submission for the 2025/26 RIGs submission through an expanded Annex.
- 4.4 We agree that that separate submission may increase the risk of errors and therefore we propose that it should be included in the RIGs through an expanded annex. It will be included in the proposal to modify the Regulatory Instructions and Guidance ("RIGs") and Regulatory Reporting Pack ("RRP") for RIIO-ED2.

Granular Utilisation of Data

- 4.5 The scope of the review includes an assessment of progress against the expectations of granular utilisation data to be available for RIIO-ED3. We considered what progress has been made so far.
- 4.6 We recognised DNOs were not monitoring demand in real time on the LV network back when RIIO-ED2 was set. DNO/DSOs were funded to install monitoring equipment, in order that they could better monitor demand growth and act if there was reliable data that LV asset utilisation is increasing rapidly (either as part of the baseline or through the SRVD).
- 4.7 For ED3, the expectation is that by the end of RIIO-ED2 DNOs will have better granular utilisation data to accurately monitor and map peak demand growth across their LV network. In turn, this should improve their modelling of LV asset utilisation because of increased LCT uptake and use this in their forecasts of future LV asset utilisation in RIIO- ED3 to inform future investment needs.

Consultation RIIO-ED2 Load Related Expenditure volume drivers**Implementation**

- 4.8 We are proposing these changes cognisant of the government's Warm Homes Plan described in paragraph 1.9 of this consultation. We consider that the changes will help incentivise DNOs to carry out more of the work described in the consultation which in turn helps the further electrification of heat and transport where consumers have chosen to adopt such technologies. This is also consistent with the Governance Document which confirms changes will be enacted on a forward-looking basis . ie. years 4 and 5. We do not consider it is appropriate or in consumers' interests to adjust allowances for volumes that have already been delivered.
- 4.9 If, because of this review, we identify changes to be made to either SpC 3.9 or this Governance Document, we will make those changes following the statutory modification process set out in S11A of the Electricity Act 1989.
- 4.10 Where changes to the RIGs or RRP are identified because of the review, those changes will made in accordance with Standard Licence Condition 46.

Process for evaluating disallowed volumes

- 4.11 We will continue to work with DNOs on the detail behind the process for evaluating disallowed volumes where the metrics have not been met. If we decide to move to a five-year assessment of the metrics, it may, for example, be more appropriate to consider such adjustments when closing out RIIO-ED2.
- 4.12 However, at a very high level, our current view is that where a licensee fails a metric and exceeds the ex ante allowance, we will follow the following process:
- Issue a Request for Information (RFI) to the licensee seeking information on costs volumes and justification.
 - A follow-up Supplementary Question (SQ) process if required.
 - Issue a determination including further consultation with the licensee if appropriate.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

5. Send us your feedback

We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this consultation. We would also like to get your answers to these questions:

- Do you have any comments about the quality of this document?
- Do you have any comments about its tone and content?
- Was it easy to read and understand? Or could it have been better written?
- Are its conclusions balanced?
- Did it make reasoned recommendations?
- Do you have any further comments?

Please send your feedback to stakeholders@ofgem.gov.uk.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

Appendix 1. LVSVD and SRVD metrics – further description

Metric 1: Transformer utilisation

- A1.1 The transformer utilisation metric is designed to control against sub-optimal reinforcement of transformers. The metric checks that reinforcement activities, funded through the SRVD, are occurring within areas where transformer utilisation is above, or forecast to be above, 100%.
- A1.2 Assessment of transformer utilisation shall be based on a forecast of the asset's utilisation for a Regulatory Year ahead, ie to the 31 March immediately after the annual RRP submission or 31 March 2024 in the case of the first Regulatory Year of the Price Control Period. A tolerance of 10% of capacity additions in utilisation bands below 100% will be permitted, to account for situations where it is justified, or necessary for safety reasons, to invest in transformers with a utilisation below 100%. The metric uses the following information reported by each licensee on an annual basis.
- PMT gross capacity additions (HV / LV, MVA) within the respective 20% forecast utilisation bands of the transformer before it was reinforced.
 - GMT gross capacity additions (HV / LV, MVA) within the respective 20% forecast utilisation bands of the transformer before it was reinforced.

Metric 2a: Transformer capacity released ratio (PMT)

- A1.3 The transformer capacity released ratio (PMT) checks that transformer capacity additions for PMTs are proportional to changes in LCT demand, by measuring the ratio of PMT net capacity additions⁹ to the increase in peak load capacity for PMTs caused by new LCT demand. The percentage of new LCTs contributing to peak load capacity for PMTs is assumed to be proportional to the percentage of total capacity served by PMTs on the network and is calculated in the Disaggregated Model. Each licensee is compared to an industry benchmark, calculated in the Disaggregated Model. A tolerance of 10% above the industry benchmark is permitted, with any deviation above that resulting in the check not being passed.
- A1.4 The metric uses the following information reported by each licensee on an annual basis:
- HPs installed on the licensee's network during the Regulatory Year (#)
 - EVs registered in the licensee's Distribution Services Area during the Regulatory Year (#)

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- PMT gross (capacity) additions (HV / LV, MVA)
- PMT disposals (HV / LV, MVA)

Metric 2b: Transformer capacity released ratio (GMT)

- A1.5 The transformer capacity released ratio (GMT) checks that transformer capacity additions for GMTs are proportional to changes in LCT demand, by measuring the ratio of GMT net capacity additions¹⁰ to the increase in peak load capacity for GMTs caused by new LCT demand. The percentage of new LCTs contributing to peak load capacity for GMTs is assumed to be proportional to the percentage of total capacity served by GMTs on the network and is calculated in the Disaggregated Model. Each licensee is compared to an industry benchmark, calculated in the Disaggregated Model. A tolerance of 10% above the industry benchmark is permitted, with any deviation above that resulting in the check not being passed.
- A1.6 The metric uses the following information reported by each licensee on an annual basis:
- HPs installed on the licensee's network during the Regulatory Year (#)
 - EVs registered in the licensee's Distribution Services Area during the Regulatory Year (#)
 - GMT gross (capacity) additions (HV / LV, MVA)
 - GMT disposals (HV / LV, MVA)

Metric 3a: LV Circuits length added ratio (LV OHL)

- A1.7 The LV circuits length added ratio (LV OHL) checks that the addition of LV overhead pole line circuits (length) is proportional to changes in LCT demand, by measuring the ratio of LV overhead pole line (LV OHL) length additions to the increase in peak load capacity for LV OHLs caused by new LCT demand. The percentage of new LCTs contributing to peak load capacity for LV overhead pole lines is assumed to be proportional to the split of LV services between LV overhead pole lines and underground cables and is as calculated in the Disaggregated Model. Each licensee is compared to an industry benchmark, calculated in the Disaggregated Model. A tolerance of 10% above the industry benchmark is permitted, with any deviation above that meaning that the check will not be passed.
- A1.8 The metric uses the following information reported by each licensee on an annual basis:
- HPs installed on the licensee's network during the Regulatory Year (#)

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- EVs registered in the licensee's Distribution Services Area during the Regulatory Year (#)
- OHL Circuit (length) additions (LV, km)

Metric 3b: LV Circuits length added ratio (LV cable)

A1.9 The LV circuits length added ratio (LV cable) checks that the addition of LV cable circuits (length) is proportional to changes in LCT demand, by measuring the ratio of LV cable length additions to the increase in peak load capacity for LV cables caused by new LCT demand. The percentage of new LCTs contributing to peak load capacity for LV cables is assumed to be proportional to the percentage of LV cables on the network (relative to the total number of LV circuits) and is calculated in the Disaggregated Model. Each licensee is compared to an industry benchmark, calculated in the Disaggregated Model. A tolerance of 10% above the industry benchmark is permitted, with any deviation above that meaning that the check will not be passed.

A1.10 The metric uses the following information reported by each licensee on an annual basis:

- HPs installed on the licensee's network during the Regulatory Year (#)
- EVs registered in the licensee's Distribution Services Area during the Regulatory Year (#)
- Cable Circuit (length) additions (LV, km)

Metric 3c: HV Circuits length added ratio (HV OHL)

A1.11 The HV circuits length added ratio (HV OHL) checks that the addition of HV overhead pole line circuits (length) is proportional to changes in LCT demand, by measuring the ratio of HV overhead pole line (HV OHL) length additions to the increase in peak load capacity for HV OHLs caused by new LCT demand. The percentage of new LCTs contributing to peak load capacity for HV overhead pole lines is assumed to be proportional to the percentage of Customers connected to HV overhead lines (as indicated by the IIS HV circuit disaggregated data) and is as calculated in the Disaggregated Model. 20 RIIO-ED2 LRE Volume Drivers Governance Document

A1.12 Each licensee is compared to an industry benchmark, calculated in the Disaggregated Model. A tolerance of 10% above the industry benchmark is permitted, with any deviation above that meaning that the check will not be passed.

A1.13 The metric uses the following information reported by each licensee on an annual basis:

Consultation RIIO-ED2 Load Related Expenditure volume drivers

HPs installed on the licensee's network during the Regulatory Year (#)

EVs registered in the licensee's Distribution Services Area during the Regulatory Year (#)

OHL Circuit (length) additions (HV, km)

Metric 3d: HV Circuits length added ratio (HV cable)

A1.14 The HV circuits length added ratio (HV cable) checks that the addition of HV cable circuits (length) is proportional to changes in LCT demand, by measuring the ratio of HV cable length additions to the increase in peak load capacity for HV cables caused by new LCT demand. The percentage of new LCTs contributing to peak load capacity for HV cables is assumed to be proportional to the percentage of HV cables on the network (relative to the total number of HV circuits) and is calculated in the Disaggregated Model.

A1.15 Each licensee is compared to an industry benchmark, calculated in the Disaggregated Model. A tolerance of 10% above the industry benchmark is permitted, with any deviation above that meaning that the check will not be passed.

A1.16 The metric uses the following information reported by each licensee on an annual basis:

- HPs installed on the licensee's network during the Regulatory Year (#)
- EVs registered in the licensee's Distribution Services Area during the Regulatory Year (#)
- Cable Circuit (length) additions (HV, km)

Metric 4: Measured Low Voltage peak demand growth and electricity consumption growth indices

A1.17 The Measured Low Voltage peak demand growth and electricity consumption growth indices measure the change over time in the peak load and electricity consumption volume measured by LV Monitoring. The metric tracks whether year on year growth is positive or negative. It is intended to provide visibility of the change in demand on the low voltage network as opposed to checking whether licensee expenditure is suboptimal. 2.51. Licensees are required to calculate their (i) year-on-year annual peak demand growth and (ii) year-on-year annual electricity consumption growth measured by LV Monitoring and where there is sufficient data to do so. Licensees should report additional data points as 'Monitored sites with insufficient data' once they have LV Monitoring installed, even where insufficient data has been recorded to calculate year-on-year annual growth.

Consultation RIIO-ED2 Load Related Expenditure volume drivers

A1.18 The year-on-year annual peak demand growth shall be calculated as the percentage difference in measured peak demand (MVA) across Regulatory Years. For this measure the in-year annual peak demand shall be based on the average (mean) of the peak demand across multiple events for each LV Monitoring point, using the highest 10 Half Hour periods for that LV substation.

A1.19 The metric uses the following information reported by each licensee on an annual basis:

- LV monitored GMT peak demand growth (HV / LV, #) within the respective growth bands.
- LV monitored PMT peak demand growth (HV / LV, #) within the respective growth bands.
- LV monitored GMT electricity consumption growth (HV / LV, #) within the respective growth bands.
- LV monitored PMT electricity consumption growth (HV / LV, #) within the respective growth bands

Metric 5: Flexibility procured transformer utilisation

A1.20 The flexibility procured transformer utilisation metric is designed to check that flexibility is only being procured in situations where transformer utilisation is above, or projected to be above, 100%. Assessment of transformer utilisation shall be based on a forecast of the asset's utilisation for a Regulatory Year ahead, ie to the 31 March immediately after the annual RRP submission or 31 March 2024 in the case of the first Regulatory Year of the Price Control Period.

A1.21 The metric uses the following information reported by each licensee on an annual basis:

- PMT existing capacity of assets with flexibility procured (HV / LV, MVA) within the respective 20% forecast transformer utilisation bands and split out by the length of the contract in years.
- GMT existing capacity of assets with flexibility procured (HV / LV, MVA) within the respective 20% forecast transformer utilisation bands and split out by the length of the contract.

Metric 5: Flexibility procured transformer utilisation

A1.22 The flexibility procured transformer utilisation metric is designed to check that flexibility is only being procured in situations where transformer utilisation is above, or projected to be above, 100%.

A1.23 Assessment of transformer utilisation shall be based on a forecast of the asset's utilisation for a Regulatory Year ahead, ie to the 31 March immediately

Consultation RIIO-ED2 Load Related Expenditure volume drivers

after the annual RRP submission or 31 March 2024 in the case of the first Regulatory Year of the Price Control Period.

A1.24 The metric uses the following information reported by each licensee on an annual basis:

- PMT existing capacity of assets with flexibility procured (HV / LV, MVA) within the respective 20% forecast transformer utilisation bands and split out by the length of the contract in years.
- GMT existing capacity of assets with flexibility procured (HV / LV, MVA) within the respective 20% forecast transformer utilisation bands and split out by the length of the contract.

Metric 6: LV Services Unlooping

A1.25 The metric checks that LV Service cables (overhead pole lines and cables), fuse upgrades and cut outs (metered) are in most cases only being reinforced as part of an unlooping. In relation only to LV Service Proactive Works; if the number of i) LV Service overhead pole lines and LV Service cables, ii) cut outs (metered), or iii) fuse upgrades exceed the number of properties unlooped by more than 20% then the check will not be passed.

A1.26 The metric uses the following information reported by each licensee on an annual basis:

- Number of Unlooped Properties resulting from Proactive Works (#)
- Proactive OHL LV service reinforcement asset additions (LV Service (OHL), LV, #)
- Proactive Cable LV Service reinforcement asset additions (LV Service (UG), LV, #)
- Proactive Switchgear reinforcement asset additions (Cut out (metered), LV, #)
- Proactive Switchgear reinforcement asset additions (Fuse upgrades, LV, #)

Consultation RIIO-ED2 Load Related Expenditure volume drivers

Appendix 2. Privacy policy

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, “Ofgem”). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

4. With whom we will be sharing your personal data

We will share redacted data contained in this document with the Distribution Network Operators (DNOs) and the Energy Networks Association (ENA).

5. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for six months after a decision has been made on changes to the volume drivers.

6. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data

Consultation RIIO-ED2 Load Related Expenditure volume drivers

- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at <https://ico.org.uk/>, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas

8. Your personal data will not be used for any automated decision making.

9. Your personal data will be stored in a secure government IT system.

10. More information For more information on how Ofgem processes your data, click on the link to our “[ofgem privacy promise](#)”.

Consultation RIIO-ED2 Load Related Expenditure volume drivers