Guidance

Making a positive difference for energy consumers

~~RIIO-ED2 Regulatory Instructions and Guidance – Annex I – DSO~~

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RIIO-ED2 is the price control for distribution network companies from 1 April 2023 to 31 March 2028.

This document is part of the regulatory instructions and guidance (RIGs) for RIIO-ED2.

Contents

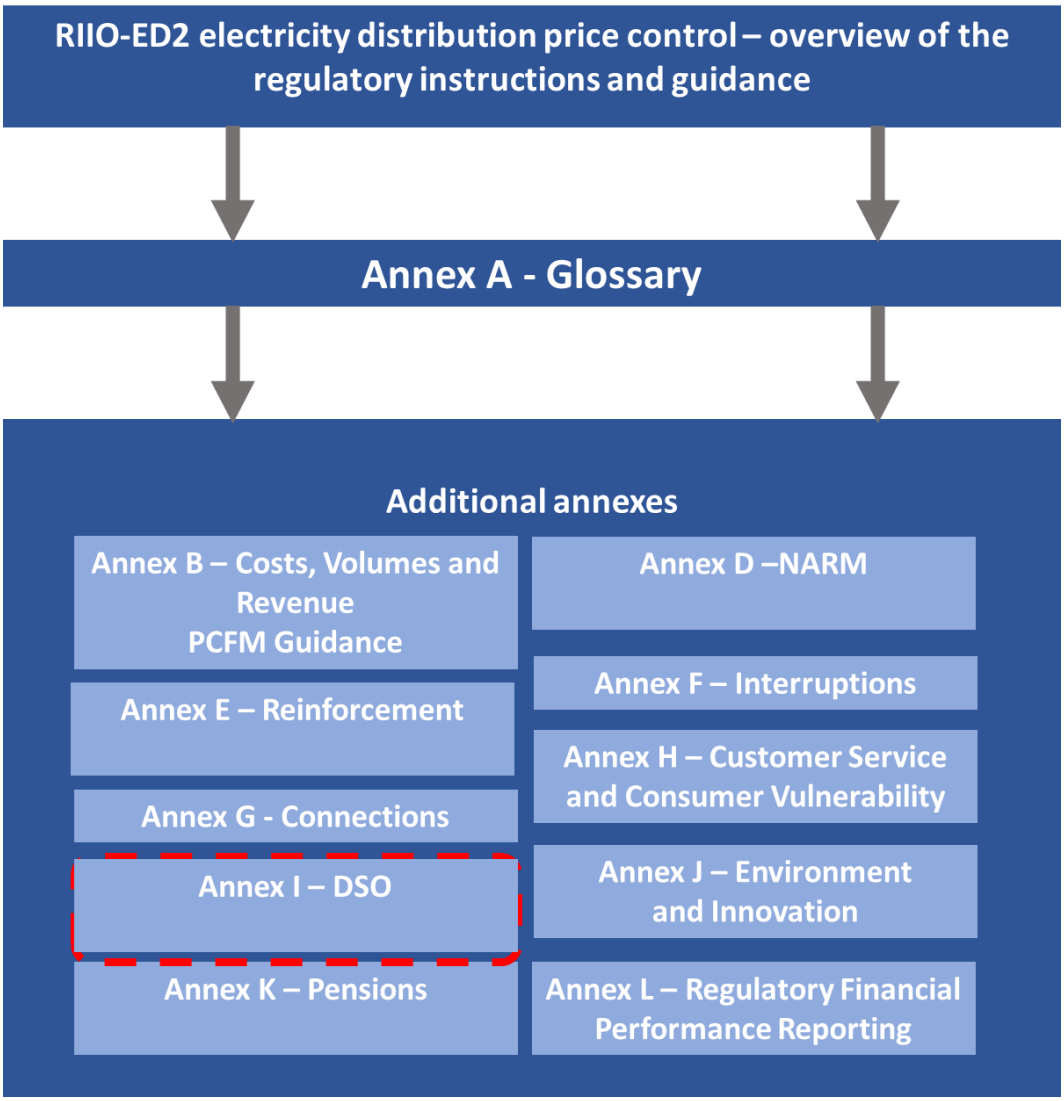
1. Introduction

Scope of this document

1.1 This document is part of the RIGs for RIIO-ED2. The term RIGs refers to a collection of documents – our instructions and guidance, and the reporting packs and commentaries the licensees have to fill out.

1.2 Figure 1.1 shows all the instructions and guidance documents for the RIIO-ED2 RIGs. This document, circled in Figure 1.1, is one of a series of annexes containing instructions and guidance. It provides licensees with information on how to fill in the DSO Reporting Pack that they are required to submit to Ofgem.

Figure 1.1: Map of the RIIO-ED2 instructions and guidance



1.3 This document sets out the instructions and guidance for submitting data for:

- The DSO Stakeholder Satisfaction Survey.
- ~~The DSO Outturn Performance Metrics.~~
- The DSO Regularly Reported Evidence (RRE).

1.4 This document should be read in conjunction with:

- The RIIO-ED2 – Overview of the Regulatory Instructions and Guidance document.
- The DSO Incentive Governance Document.[1]
- Annex A – Glossary for the regulatory instructions and guidance.
- The associated Microsoft® Excel reporting pack named "DSO Reporting Pack".

1.5 The purpose of the information we collect in the DSO Reporting Pack is to monitor licensees' performance in RIIO-ED2 and to collate information that will inform the next Price Control review.

General instructions for completing the worksheets

1.6 In the worksheets, the numbers will be displayed to two decimal places. Licensees are required to provide data to a minimum of two decimal places, unless otherwise indicated in the guidance. Where a reportable value is zero the cell input should be zero. Where it is not applicable to the licensee, the cell should be left blank.

1.7 The DSO Reporting Pack contains a:

- Changes Log.
- Revenue Link Table.

1.8 The Changes Log worksheet must be used by the licensees to record any amendments (formulae or presentation) that are made to the reporting pack, including the date those changes were made. Ofgem will also record any changes made to the reporting pack in this worksheet.

1.9 The Revenue Link Table within the Revenue Link Table worksheet does not require any input from licensees. This worksheet links to other worksheets in the reporting pack. The information in this table will be used to complete the relevant cells in the Costs, Volumes and Revenue Reporting Pack.

[1] ~~We will consult on any necessary changes to the DSO Governance Document once the RIGs have been finalised.~~

2. Instructions for completing the DSO Stakeholder Satisfaction Survey (DSOSASt) worksheet

2.1 Data submitted in the DSO Stakeholder Satisfaction Survey worksheet will be used to determine performance under the DSO Incentive.

DSO Stakeholder Satisfaction Survey population

2.2 Licensees must report the number of DSO Stakeholders who were issued the DSO Stakeholder Satisfaction Survey for the Regulatory Year and respective distribution network company.[2]

2.3 We expect the appointed independent and reputable market research company ("Independent Third Party") to take all reasonable steps to contact the DSO Stakeholders, subject to the guidance in Chapter 3 of the DSO Incentive Governance Document.

2.4 A DSO Stakeholder must not be counted within the DSO Stakeholder Satisfaction Survey population if the Independent Third Party's emails were automatically rejected and/or if any telephone correspondence was unanswered.

2.5 A single Organisation may have multiple individuals who are identified in the survey population, however, only one score per Organisation will be considered for the purposes of the survey results. This is achieved by calculating the average (mean) score in relation to that Organisation from the individual responses completed.

2.6 Different legal entities within the same company group structure will be considered as separate unique organisations for the purpose of the DSO Stakeholders Surveys. and must complete either separate surveys for each different legal entity or a single survey as a whole company group.

Scored questions

~~2.4~~2.7 Licensees must report the average (mean) of the scores that were submitted for each of the five scored questions in the DSO Stakeholder Satisfaction Survey. These must be the scores for the relevant Regulatory Year and distribution network company.

[2] We use the term distribution network companies to refer to ENWL, NGED, NPg, SPEN, SSEN and UKPN.

~~2.5~~2.8 Licensees must also report the number of unique DSO Stakeholders who submitted a score in response to each of the five scored questions for the relevant Regulatory Year and distribution network company.

~~2.6~~2.9 DSO Stakeholders must have responded to the DSO Stakeholder Satisfaction Survey within the timeframes that are set out in Chapter 3 of the DSO Incentive Governance Document.

Screening questions

~~2.7~~2.10 Distribution network companies must also report the number of unique DSO Stakeholder responses received for the three screening questions in the DSO Stakeholder Satisfaction Survey. Licensees are required to provide this information as a whole number. These results must relate to the relevant Regulatory Year and distribution network company.

3. Instructions for completing the DSO Outturn Performance Metrics worksheets

3.1 Data submitted in the DSO Outturn Performance Metrics worksheets will be used to determine outturn performance for each of the 3 metrics that form part of the DSO Incentive.

Flexibility Reinforcement Deferral Outturn Performance Metric (FDt)

Primary Reinforcement net impact (capacity released)

3.2 Licensees must report work undertaken to manage capacity constraints (including voltage) affecting either an individual substation or substation group on the Primary Network (33kV and above). Within these categories, reporting must be disaggregated between reinforcement for N-1 or N-2 schemes.

3.3 In each of the sections of the tables for N-1 and N-2 schemes affecting individual substations or substation groups, licensees must report the Capacity Released[3] at time of energisation (in MVA) and the number of schemes. Capacity Released must be an aggregated value for the three types of intervention:

- Conventional – substation: reinforcement using Conventional Solutions at substations.
- Conventional – circuit: reinforcement using Conventional Solutions on circuits.
- Innovative: any Innovative Solution.

3.4 The Capacity Released must be reported in the row corresponding to the highest and lowest voltages at a substation or the highest and lowest voltages affected by the constraint for a substation group. If a circuit constraint affects a number of substations, it should be reported under substation groups. For example, if two 33/11 kV substations are supplied by a common cable and the cable is restricting the capacity of the substation group and only circuit works are carried out on the 33kV cable causing the constraint, this should be classified as 33kV:11kV (related to the substations affected by the constraint) and not as 33kV:33kV work (based on the cable constraint).

[3] Capacity Released is a net impact, in line with the definition included in the RIIO-ED2 RIGs Annex A – Glossary.

Primary Reinforcement newly deferred net impact (capacity released, counterfactual)

3.5 Licensees must report the Capacity Released (in MVA) and the number of schemes that would have been delivered by counterfactual reinforcement affecting either an individual substation or substation group on the Primary Network if the Distribution Flexibility Services were not procured. Within these categories, reporting must be disaggregated between reinforcement for n-1 or n-2 schemes and the row corresponding to the highest and lowest voltages at a substation or the highest and lowest voltages affected by the constraint for a substation group.

3.6 This counterfactual volume must be that which was used as an input in the Common Evaluation Methodology (CEM) tool developed by the Energy Networks Association (ENA), or equivalent Cost Benefit Analysis (CBA) tool, and in accordance with the requirements of Electricity Distribution Standard Licence Condition (SLC) 31E (Procurement and use of Distribution Flexibility Services (SLC 31E)). This includes alignment with the reporting on flexibility that has been procured via the Distribution Flexibility Services Procurement Report.

3.7 Only newly deferred reinforcement through the use of Distribution Flexibility Services in the period should be included. Licensees must not include the counterfactual network reinforcement associated with ongoing Distribution Flexibility Service procurement where the contract to address an identified constraint was first commenced in previous Regulatory Year(s).

Secondary Reinforcement net impact (capacity released)

3.8 Licensees must report work undertaken to manage capacity constraints (including voltage) affecting a substation on the Secondary Network reporting must be disaggregated between pole mounted and ground mounted substations.

3.9 Licensees must report the Capacity Released at time of energisation (in MVA) and the number of schemes. Capacity Released must be an aggregated value for Conventional and Innovative solutions.

Secondary Reinforcement newly deferred net impact (capacity released, counterfactual)

3.10 Licensees must report the Capacity Released (in MVA) and the number of schemes that would have been delivered by counterfactual network reinforcement on the Secondary Network if the Distribution Flexibility Service was not procured.

Reporting must be disaggregated between pole-mounted and ground-mounted substations.

3.11 This counterfactual volume must be that which was used as an input in the CEM tool developed by the ENA, or equivalent CBA tool, and in accordance with the requirements of Electricity Distribution Standard Licence Condition (SLC) 31E (Procurement and use of Distribution Flexibility Services (SLC 31E)). This includes alignment with the reporting on flexibility that has been procured via the Distribution Flexibility Services Procurement Report.

3.12 Only newly deferred reinforcement through the use of Distribution Flexibility Services in the period should be included. Licensees must not include the counterfactual network reinforcement associated with ongoing Distribution Flexibility Service procurement where the contract to address an identified constraint was first commenced in previous Regulatory Year(s).

Secondary Network Visibility Outturn Performance Metric (NVt)

Monitored sites (forecast and actual utilisation by transformer)

3.13 Licensees must provide a unique name for each user on a Curtailable Connection that remains unchanged throughout the price control period. Where a user is subject to both import and export curtailment, both should be reported and included as separate rows in the table.

- Licensees must report Curtailment, ie any action taken by the licensee to restrict the flow of electricity at the Connection Point, except where this restriction is caused by:
- an Interruption to the customer's supply;
- curtailment as a result of constraints on the transmission network; and/or
- curtailment as a result of reinforcement works to facilitate the transition to an unconstrained connection for the customer.

3.14 For each user, licensees must report the full import and export curtailment MWh in line with the following formulae:

$$Total\ import\ curtailed = \sum_{i=1}^{n} (di_i \times civ_i)$$

$$Total\ export\ curtailed = \sum_{i=1}^{n} (de_i \times civ_i)$$

Where:

- n is the number of curtailment instructions in the Regulatory Year.
- di is the duration of each period of Curtailment (in hours, partial or full) determined from the time the user is instructed by the licensee to Curtail its Maximum Import Capacity to the time it is notified that there is no longer a requirement to curtail.
- de is the duration of each period of Curtailment (in hours, partial or full) determined from the time the user is instructed by the licensee to Curtail its Maximum Export Capacity to the time it is notified that there is no longer a requirement to curtail.
- civ is the curtailment instruction value (ie the MW value by which the licensee instructs the user to limit its Maximum Import Capacity or Maximum Export Capacity).

Maximum potential import/export curtailment

3.15 For each user, licensees must also report the maximum potential import/export curtailment MWh that could have occurred in the Regulatory Year in line with the following formulae:

$$Maximum\ potential\ import\ curtailment = \sum_{i=1}^{n} (cic \times h_i)$$

$$Maximum\ potential\ export\ curtailment = \sum_{i=1}^{n} (cec \times h_i)$$

Where:

- cic is curtailable import capacity (ie the Maximum Import Capacity less the non-curtailable import capacity).
- cec is curtailable export capacity (ie the Maximum Export Capacity less the non-curtailable export capacity).
- h_i is the number of hours the user was connected to Distribution System in the Regulatory Year.

3.16 If a user is no longer subject to a Curtailable Connection, it should be excluded from the reporting (ie all rows for the Regulatory Year in question should be left blank).

~~3.17 Timed connections and import / export limited connections are not included in CEt as the exact level of access the customer has to the licensees network is defined in the Connection Agreement and is not dependant on prevailing network conditions.~~

~~4.~~3. Instructions for completing the DSO Regularly Reported Evidence worksheets

~~4.1~~3.1 The data in the DSO Regularly Reported Evidence (RRE) worksheets will be used to gather additional data for each Regulatory Year during the RIIO-ED2 price control period.

RRE 1: Flexible Connections

~~4.2~~3.2 Licensees must report the number of users and the total flexible import capacity and/or flexible export capacity in MW for each of the following types of Flexible Connections:

- Flexible connections that are facilitated through an **Active Network Management (ANM)** network control system.
- **Single Generation Active Network Management (SGANM)**, which are similar to a full ANM scheme except instead of managing multiple constraints and multiple generators only one generator and up to two constraints is managed.
- **Timed export/import connections**, where users have the possibility of connecting to the network but with limited export or import during certain periods of the day, week, month or year.
- **Third-party ANM connections**, where users make use of shared capacity and demand management (both of which are installed and managed by the customer).
- **Export limited connections**, where a user's installed capacity has a greater export capability than that which has been agreed to be exported onto the distribution system (and so is limited to a pre-agreed threshold).
- **Import limited connections**, where a user's installed capacity has a greater import capability than that which has been agreed to be imported onto the distribution system (and so is limited to a pre-agreed threshold).
- **Other**, where a user's connection is subject to Curtailment through any other form of agreement.

RRE 2: Primary Network forecasting accuracy

~~4.3~~3.3 Licensees must report the forecast and actual maximum demand for substations on the Primary Network.

~~4.4~~3.4 In the tables, licensees must report for:

- A unique name for each primary substation, excluding substations that are solely for a single customer. ~~This must match the unique name which is submitted in the Reinforcement Load Index (LI) Reporting Pack.~~
- A forecast of the primary substation's maximum demand for the year ahead, ie forecast maximum demand for the Regulatory Year up to the 31 March immediately after the annual RRP submission. In the case of the first Regulatory Year of RIIO-ED2, licensees must separately submit forecast maximum demand up to 31 March 2024 to Ofgem by no later than 31 July 2023.
- ~~The primary substation's calculated maximum demand for use within the derivation of LI ranking and LI risk points and as submitted in Reinforcement LI Reporting Pack. This maximum demand is calculated as the observed maximum demand adjusted for the weather correction, measurable distributed generation (DG) latent demand and non-firm demand.~~
- Due to the nature of this RRE, the outturn maximum demand requested will not be available by the RIGS submission timeline. The July submission for this table should be kept blank. However, this RRE should be submitted by the end of September each year, alongside the Load Index (LI) Reporting Pack.
- The forecast and outturn of the primary substation's calculated maximum demand should be reported on a comparable like-for-like basis (e.g. both weather corrected and accounting for the presence of distributed generation (DG) latent demand and non-firm demand), and as reported in publications such as but not limited to the Long Term Development Statement (LTDS) or the Load Index (LI). The source must be clearly stated in the RIGS commentary.

RRE 3: Transformer Utilisation

~~4.5~~3.5 Licensees must report this through the LRE Volume Drivers Workbook, as set out in further detail in the RIIO-ED2 LRE Volume Drivers Governance Document.

RRE 4: Network options assessment outcomes

~~4.6~~3.6 Licensees must report the number of potential reinforcement schemes that have been assessed using the CEM tool developed by the ENA, or equivalent CBA tool, on whether to defer conventional reinforcement through the use of distribution flexibility services.

~~4.7~~3.7 Licensees must report against the following standardised categories:

- **Reinforce**, ie undertake network development to relieve an existing network constraint or facilitate new load growth.
- **Flexibility**, ie procure flexibility services to defer the need for reinforcement.
- **Reinforce and flexibility**, ie undertake a combination of reinforcement and flexibility to manage the existing constraint.
- **Signal future requirements**, ie alert potential providers of flexibility services that a requirement may arise in the near future.
- **Do nothing**, ie no action required following the assessment of the potential reinforcement scheme.

RRE 5: Secondary Network Visibility

3.8 Licensees must report the following

- The total number of HV/LV transformers against each of the network Utilisation Bands for pole mounted and ground mounted transformers separately for each of the seven utilisation bands (0-20%, 20-40%, 40-60%, 60-80%, 80-100%, 100-120%, > 120%), and against one of the six network visibility methods (LV Monitoring, Aggregated data from Smart Meters, Advanced Analytics, Maximum Demand Indicator (MDI) or Other)
- The utilisation band for each HV/LV transformer in commission as at 31 March of the Regulatory Year being reported will be determined by the actual utilisation in the reporting year and will match CV2 – Secondary Reinforcement worksheet.
- Where more than one method has been directly used to categorise the utilisation band of an individual transformer, the method listed first in Table 1 will be used to classify the method.
- The licensee will compare the total number of HV/LV transformers match the corresponding table in CV2 noting the number of LV monitored sites

given in CV2 is not expected to always match the number of monitored sites in the table of visibility methods used to inform utilisation.

- The licensee will add a commentary setting out the salient features and relevant context of the evidence reported in this RRE.

RRE 6: Curtailment

3.9 Licensees must report the total volume and breakdown of Curtailment of users on Curtailable or Flexible connections.

3.10 The licensee must report Curtailment which captures any action taken by the licensee to restrict the conditions of a connection where this restriction is caused by:

- DNO curtailment: These customers are the primary purpose of this measure. Demand and generation are both included as they are both considered as part of the Access SCR. Curtailment controlled by a system (ANM/DERMS) and manual curtailment is included. This includes all forms of curtailment against a distribution constraint, which are not otherwise excluded below, as identified by the connection agreement or other explicit consent.

The following reasons are excluded:

- **Customer initiated curtailment** - This is out of the DNOs control. Examples are customer communications failures, maintenance or customer non-compliance to instructions leading to the opening of the customer breaker.

- **Outage related Curtailment:** These are cases of non-intact networks, and therefore do not qualify for inclusion. This includes (but is not limited to), Operational / Protection Intertrips, Curtailment to manage planned outages & associated Curtailment pre and post outage switching. It does not include Curtailment instructed under intact running to manage risks associated with the next possible fault.
- **Exceptional circumstances** - This is out of the DNOs control. These events must be pre-approved by the authority.
- **Transmission related curtailment** - Curtailment driven by constraints at the transmission.

RRE 7: Flexibility Deferral

3.11 Licensees must report each regulatory year the following information for each Grid Supply Point/substation or substation group and provide summated information for all HV/LV substations where flexibility has been sought as an alternative or complementary solution to conventional reinforcement(named locations are expected to be aligned with SLC31E reporting)~~(~~:

- **Peak Flexibility Contracted (MW)** – this refers to the total megawatts of flexible capacity contracted annually for a specific location. This metric should only include the peak MW contracted for each regulatory year. The MW requirement may vary across the year (e.g. Summer vs Winter), by reporting the peak MW this will provide a consistent measure of the maximum required flexibility that is contributing to the decision to defer reinforcement. The calculation for the RIIO-ED2 period will be the maximum for all years of the RIIO-ED2 period representing the maximum requirement rather than a cumulative total.

  Contracted flexibility can include both operational and non-operational assets and may be contracted for future years delivery.

- **Flexibility Dispatched Within Year (MWh)** – this refers to the total megawatt hours of flexibility dispatched within the regulatory year for any given location. This value should only be populated for the current regulatory reporting year whilst continuing to report historic values.

  For flexibility dispatch associated with the deferral of reinforcement for a particular location has taken place in the RIIO-ED1 period a single cumulative value of MWh should be reported for the ED1 period.

- **Counterfactual MVA Released (MVA)** – The capacity of counterfactual reinforcement that has been deferred through the use of flexibility services should be reported against the year in which the counterfactual solution would have completed.

  Where the counterfactual solution would still take place within the RIIO-ED2 period the MVA should be reported against the year it would have been released

without flexibility and reported as a negative value in the new year in which it will be released.

- **Cost Deferred (£m)** – Represents the cost in £m that has been deferred through the use of flexibility services. This value should represent the forecast cost of the counterfactual network upgrade or reinforcement activity that has been deferred for each location. Costs should be reported and aligned with the year in which the Counterfactual MVA released is reported.

  All costs should be reported in 2020/21 Price Basis to align with the RIIO-ED2 BPDT submission and licensees submitted Engineering Justification Papers.

  Where the counterfactual solution would still take place within the RIIO-ED2 period the counterfactual cost should be reported against the year it would have been incurred without flexibility and reported as a negative value in the year in which it will be incurred through the use of flexibility.