

# RIIO-ED1 regulatory instructions and guidance: Annex F – Interruptions

## Guidance

**Reference:** ~~V4~~V5.0

**Publication date:** Original publication  
18 June 2015  
Revised publication  
TBC

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### Overview:

RIIO-ED1 is the price control for electricity distribution network operators (DNOs) from 1 April 2015 to 31 March 2023.

This document is part of the regulatory instructions and guidance (RIGs) for RIIO-ED1.

# Contents

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<b>1. Introduction .....</b>	<b>3</b>
Scope of this document .....	3
Instructions for completing the changes log and revenue link tables.....	5
<b>2. Instructions for completing quality of service reporting worksheets.....</b>	<b>6</b>
Quality of Service Interruptions .....	6
Updating the connectivity model .....	19
Reporting requirements .....	19
Exceptional Events impact.....	23
Disaggregation by duration band (pre-arranged and unplanned CI only) .....	23
Disaggregation by frequency band (higher voltage unplanned CI only) .....	24
Disaggregation by HV circuit .....	24
Disaggregation by Occurrences Not Incentivised .....	26
Short Interruptions .....	27
Required level of accuracy for reporting interruptions data .....	27
Other events knowledge sharing .....	28
<b>3. Guidance on the guaranteed standards of performance .....</b>	<b>29</b>
Introduction .....	29
Guaranteed Standards of Performance Reporting Pack.....	29
The scope of the standards .....	29
General guidance and interpretation.....	30
Payment Terms Reporting.....	53
Codes of Practice Reporting.....	53
<b>Appendix 1 – Quality of service .....</b>	<b>55</b>
Purpose of information .....	55
Formulae for the purposes of reporting .....	55
Other formulae .....	59
Auditing and estimating the accuracy of interruptions reporting .....	61
<b>Appendix 2 – Unplanned QoS targets .....</b>	<b>65</b>
<b>Appendix 3 – Exceptional Severe Weather Event thresholds .....</b>	<b>66</b>
<b>Appendix 4 – Mapping to Costs &amp; Volumes .....</b>	<b>68</b>
<b>Appendix 5 – Cause Codes.....</b>	<b>69</b>
<b>Appendix 6 – MEI Codes .....</b>	<b>71</b>

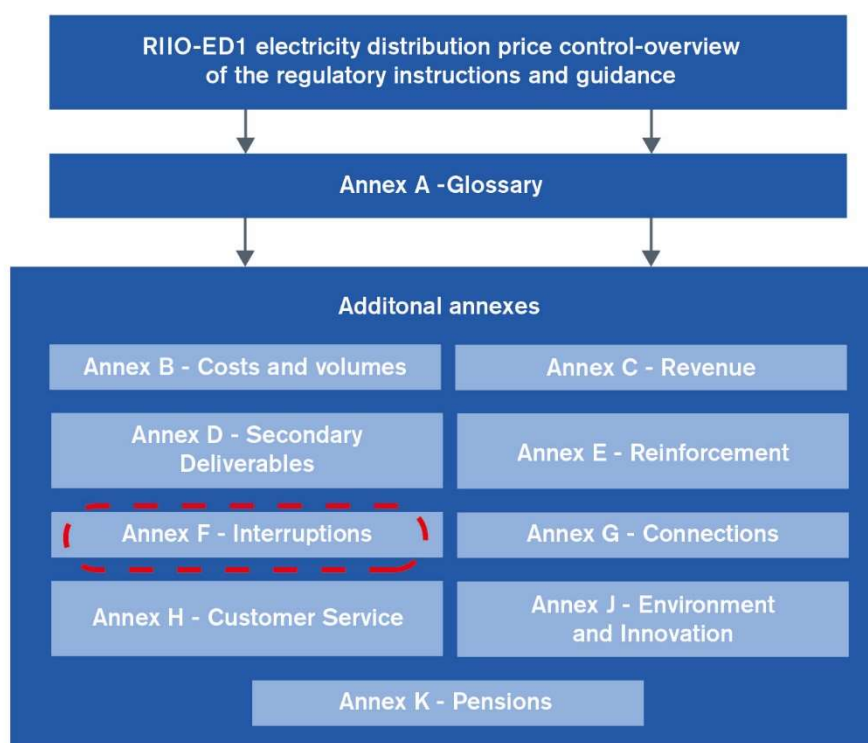
# 1. Introduction

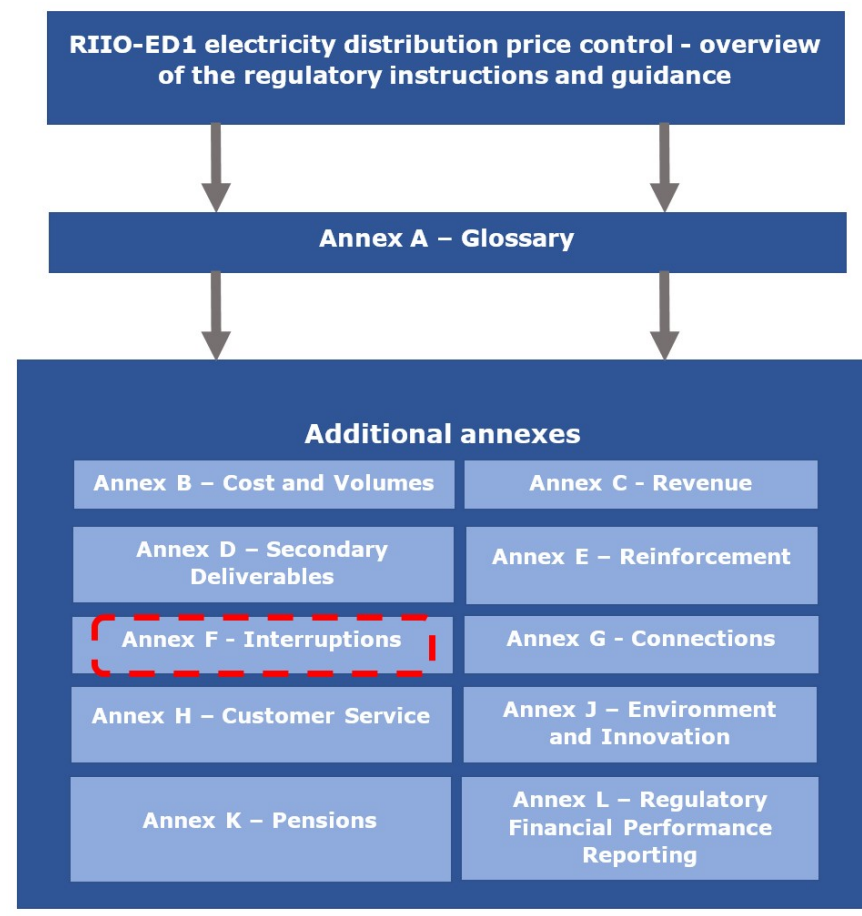
## Scope of this document

1.1. This document is part of the regulatory instructions and guidance (RIGs) for RIIO-ED1. The term RIGs refers to a collection of documents – our instructions and guidance, and the reporting packs and commentaries the electricity distribution network operators (DNOs) have to fill out.

1.2. Figure 1.1 shows all the instructions and guidance documents for the RIIO-ED1 RIGs. This document, circled in Figure 1.1, is one of a series of annexes containing instructions and guidance. It provides DNOs with information on how to fill in the interruptions reporting packs that they are required to submit to us.

**Figure 1.1: Map of the RIIO-ED1 instructions and guidance**





1.3. This document should be read in conjunction with:

- the RIIO-ED1 electricity distribution price control – overview of the regulatory instructions and guidance document
- Annex A – Glossary for the regulatory instructions and guidance
- the associated Microsoft® Excel 2010 reporting packs named:
  - “QoS Interruptions Reporting Pack”
  - “QoS Interruptions Stage Data Reporting Pack”
  - “QoS HV Disaggregation Reporting Pack”
  - “Occurrences Not Incentivised Reporting Pack”
  - “Guaranteed Standards of Performance Reporting Pack”.

1.4. The purpose of collecting information in the QoS Interruptions, QoS Stage Data and QoS HV Disaggregation Reporting Packs is to monitor DNOs’ performance against the interruptions incentive scheme (IIS) and to provide underlying data to assist with target setting for future price controls.

1.5. The purpose of collecting information in the Occurrences Not Incentivised Reporting Pack is to monitor DNO reporting under the Safety and Security of Supplies Enquiry Service, beyond that reported for the IIS. For example to consider

the impact of faults on unmetered supplies such as street lighting and street furniture.

1.6. The purpose of the Guaranteed Standards of Performance Reporting Pack is to collect information that allows Ofgem to monitor DNO performance against the guaranteed standards and adherence to The Electricity (Standards of Performance) Regulations (“the Regulations”).

### **Instructions for completing the changes log and revenue link tables**

1.7. The Changes Log must be used by the DNOs 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.

1.8. The QoS Interruptions Stage Data Reporting Pack and Guaranteed Standards of Performance Reporting Pack each contain a worksheet named Revenue Reporting Pack Link Table. This worksheet does not require any input from DNOs. This worksheet links to other worksheets in the reporting pack. The information in this table should be used to complete the relevant cells in the R5a – Links worksheet in the Revenue Reporting Pack.

## 2. Instructions for completing quality of service reporting worksheets

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### Quality of Service Interruptions

#### Introduction

2.1. The purpose of this chapter is to provide instructions and guidance for quality of service (QoS) reporting. It sets out instructions and guidance for the reporting of the following which are defined in Annex A – Glossary:

- Customers Interrupted (CIs)
- Customer Minutes Lost (CMLs) (duration of interruptions to supply)
- Short Interruptions (SIs)
- Customers Re-interrupted (RIs)
- Occurrences Not Incentivised (ONIs).

#### Information sources

2.2. Most DNOs use the National Fault and Interruption Reporting Scheme (NaFIRS) which is administered by the Energy Networks Association (ENA). Others use an equivalent system. These systems collect information on the number of Customers interrupted and duration of interruptions to supply.

#### Definitions

2.3. In addition to those definitions listed in paragraph 2.1 above, other relevant key terms for the purpose of quality of service outputs reporting are defined in Annex A – Glossary:

- 132kV Systems
- EHV Systems
- HV Systems
- LV Systems
- LV Services
- Customer
- Total Number of Customers
- Total Number of New Customers
- Total number of Disconnected Customers
- Unplanned Incident
- Pre-arranged Incident
- Incident on Other Systems
- Non-Damage Incident
- Damage Incident
- Interruption
- Restoration Stage

- Temporary Supply Arrangement
- Temporary Connections
- Temporary Disconnections
- Interruptible Contracts
- Non-Firm Contracts
- Clock Stopping
- Exceptional Events
- Severe Weather Exceptional Events
- Other Exceptional Events.

## **Customer**

2.4. Only one Customer should be identified at each connection point. This means that multiple (or secondary) MPANs which arise due to the type of tariff (or equivalent) and/or metering arrangements (eg import/export meters), but are associated with a single connection point, must not be counted.

2.5. In some cases (eg flats), the connection point may be from the Distribution System to wiring owned by a landlord or a facilities manager. In such cases, individual Customers supplied by such wiring are classed as Customers of the Distribution System where they are identifiable from MPANs.

2.6. Any changes to the method used by DNOs to identify Customers from MPANs must be agreed in advance with Ofgem. Ofgem want to ensure that, as far as possible, DNOs use a consistent method for identifying Customers.

## **Incident**

2.7. Occurrences that are classed as an incident lasting three minutes or longer include:

- Any physical break in the circuit upstream of the Customers interrupted (or circuit affected), due to automatic or manual operation of switchgear or fusegear, or due to any other open circuit condition.
- The unprogrammed isolation of any circuit or item of equipment, energised at power system voltage, which has not been classified as a pre-arranged incident.
- Failures of non-system equipment (eg pilot cables, oil and gas alarms, voltage control equipment etc) which result in the disconnection of equipment energised at power system voltage.
- Incorrect operations of protection equipment which result in the disconnection of a circuit energised at power system voltage.
- Failure of protection equipment to operate. This includes incidents where the main protection fails to operate and a fault clearance is initiated by back-up protection or protection at another point on the network.
- The loss of infeed from other connected systems, including those owned by NGET/transmission companies (in Scotland), other distribution companies and distributed generators.
- The pre-arranged isolation of any circuit or item of equipment energised at power system voltage that results in loss of supply.

2.8. Occurrences that would not lead to an incident are as follows:

- Maintenance outages and malfunctions of non-system equipment (eg pilot cables etc) which do not result in the disconnection of a circuit or item of equipment energised at power system voltage.
- Failures and overloads on Customers' equipment or another connected system, which are cleared by the correct operation of the DNO's protection and which do not interrupt the supply to other Customers of the DNO.
- Pre-arranged works affecting Customers for the purposes of meter changes, voltage standardisation and work on service cables and distributors' fuses.
- Interruptions to supply resulting from load shedding in compliance with statutory and/or licence obligations following upstream incidents relating to either transmission or generation activities.
- ~~It should be noted that all occurrences~~ Occurrences that are as a result of cut-outs (metered or unmetered) or any wiring and equipment connected after cut-outs, including cut-out fuse operations, are not an incident even where such occurrences have resulted in the operation of a fuse at the DNO's substation. Where the substation fuse is removed or other means of isolation (such as cutting a cable live) is carried out, and customers not connected to the faulty cut-out are interrupted in order to facilitate work to remedy that particular issue, separate occurrences should be created and treated as incidents, and the associated CIs and CMLs reported.

2.9. Any additional incidents which affect part of the network and/or Customers already affected by an incident must also be reported as additional incidents. Two or more incidents may then be active concurrently and the number and duration of interruptions and the number of re-interruptions must be calculated accordingly.

*Incident start*

2.10. The incident start time is the earlier of the date and time at which:

- the first report is received of a loss of supply<sup>1,2,3</sup> or other abnormality which prevents a circuit or other item of equipment from carrying normal load current or being able to withstand through fault current for three minutes or longer, or the relevant circuit is automatically, deliberately or otherwise disconnected.

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<sup>1</sup> Neutral alarms or indication of reduced feeder load should not be taken as the start time.

<sup>2</sup> Where a customer (or customers) reports low volts then this should not be treated as a loss of supply, until the DNO confirms that the customer(s) is off supply. Equally, where a report of reverse polarity is received by the DNO, the customer(s) should be considered on supply until the DNO confirms that the customer(s) is off supply, or needs to be disconnected in order to carry out repairs to the DNO's network.

<sup>3</sup> An incident is considered to have started when either the first no supply call or confirmation from site of an abnormality is received.

### *Report received time*

2.11. The report received time is the earliest time that a DNO became aware of a loss of supply, an abnormality or a suspected abnormality. It must be the earliest of the date and time at which:

- a Customer (or other person) first contacted the DNO to advise of no supply, an abnormality or suspected abnormality
- an alarm was received by the DNO indicating a loss of supply, abnormality or suspected abnormality, or
- a DNO employee or agent identified the existence of a loss of supply, abnormality or suspected abnormality.

Single premises power outage alerts originating from a smart meter are not reasonably expected to indicate no supply. Where an outage alert is received, the DNO should contact the customer as soon as reasonably practicable thereafter to check whether the customer is without power, but only between 8am and 9pm. However, this should not restrict the DNO from contacting a customer outside of those hours if the DNO considers it in the customer's interest to do so. The single premises power outage alert originating from a smart meter will be deemed to have been received at the earliest of either 8am or when there is contact with the customer.

2.12. For reports that are associated with a loss of supply or other abnormality which prevents a circuit or other item of equipment from carrying normal load current or being able to withstand through fault current for three minutes or longer, the report received time will coincide with the incident start time. For other reports the report received time may precede the incident start time, for example:

- when deliberate disconnection is undertaken sometime after the report is received, or
- when some faults are held by arc suppression.

2.13. In respect of loss of supply, some DNOs wait for a second report before initiating action. However, for the purposes of reporting the incident start time must be based on the time of the first report received. The date and time of an incident is the time at which the DNO first becomes aware of the incident by any means.

2.14. In respect of calls related to low voltages, the response of the DNO will vary depending on the information that has been provided by the Customer (or Customers). The advice given to the Customer will determine the DNOs recorded incident start time or not as per the guidance outlined in 2.11 to 2.13, for example:

- if a DNO advises a Customer to isolate their supply, then the time of this advice being given shall be recorded as the start time of this incident.

### *Incident completion*

2.15. The determination of when an incident is considered complete is dependent on whether or not a temporary supply arrangement has been used to restore supplies.

2.16. Where a temporary supply arrangement has not been used to restore supplies, an incident is considered complete when supplies have been restored to all Customers involved in the incident for a period of at least 3 hours. This does not require the Restoration of the normal network configuration and open points.

2.17. Where a temporary supply arrangement has been used to restore supplies, an incident is considered complete when supplies have been restored to all Customers involved in the incident for a period of at least 18 hours.

2.18. As outlined in 2.16 and 2.17, any interruptions to supply caused by the removal of a temporary supply to reconnect, where done within 18 hours of restoring supplies via that temporary connection, must be counted as a re-interruption to supply. Any failures of a temporary supply arrangement, such as a generator running out of fuel, must be treated as a new interruption to supply and reported accordingly if this takes place after supplies have been restored to all Customers involved in the incident for a period of at least 18 hours, otherwise this must be treated as a re-interruption.

2.19. If there is a further loss of supply due to an unrelated occurrence, eg an incident on an adjacent circuit, to some or all of the same Customers before incident completion, then this must be treated as a separate incident and the losses of supply must be counted as interruptions.

2.20. If there is a further loss of supply to some or all of the same Customers after incident completion, this must be treated as a separate incident and the losses of supply must be treated as interruptions.

2.21. Where an incident start time and completion time/date span two reporting years, the incident must be allocated to the year in which it started.

### **Pre-Arranged Incident**

2.22. A pre-arranged incident which requires a number of switching operations involving an interruption to supply to Customers must be treated as a single incident, provided that the outage start time is within the period stated on the notification provided to the Customer(s). Whether or not the outage Restoration time is outside the period stated on the notification provided to the Customer(s), the full length of the outage must be recorded as part of the planned incident. A record must also be kept of the times notified to the Customer(s) and the actual interruption times. Where the affected Customers have agreed to a shorter notice period for a pre-arranged interruption or this interruption starts before the original notice period at the request of Customers, the interruptions to these Customers must be recorded as

pre-arranged incidents, but only where there is auditable evidence, eg a note in the incident log detailing the revised interruption time.

2.23. Where the outage start time is before the period stated on the notification provided to the Customer(s) and the affected Customers have not agreed to or requested the earlier start time, the interruption of supply to the Customer(s) must be recorded as an unplanned incident.

2.24. Where statutory notification has not been provided to one or more Customers or the Customer(s) has not agreed a shorter notice period, then the Customer(s) must be recorded separately as part of an unplanned incident. The interruption to supply of all of the Customers that received statutory notice (or agreed a shorter notice period) must still be reported as a pre-arranged incident.

### **Interruption sequences**

2.25. An incident may include both a loss of supply of less than 3 minutes' duration and a loss of supply of 3 minutes or longer. Under such circumstances, where the loss of supply of less than 3 minutes' duration occurs first, it must be reported as a short interruption. Where an interruption lasts for 3 minutes or longer, further losses of supply of less than 3 minutes' duration during the course of the same incident must not be recorded either as part of the incident or as a short interruption.

2.26. In determining interruption sequences above, Restorations of less than 3 minutes must be ignored, ie the interruption sequence would be determined as if there had been no such Restoration. For example, where a Customer is interrupted for 2 minutes, restored for 2 minutes, then interrupted for 30 minutes and subsequently restored for 3 minutes or more, the duration of the interruption would be 34 minutes.

2.27. In the case of Customers using more than one phase, supply is considered as being interrupted when:

- one or more phases is interrupted and/or
- one or more phases do not have the correct vector relationship.

### **Occurrences Not Incentivised**

2.28. Each occurrence must be identified by a reference number, along with the voltage, the start time and date of the occurrence.

### **Short Interruption**

2.29. In the case of multi-shot reclosing schemes, only one short interruption is to be counted where the successful Restoration is achieved by a sequence of multiple operations in less than three minutes, where these are identifiable. Where the sequence of operations is not identifiable, a simple count of all operations of

automatic reclosing devices could be used, excluding those operations recorded elsewhere, eg those associated with other incidents or routine switching.

2.30. The number of Customers interrupted must be identified in the same way as for incidents (ie those situations where Customers are off supply for three minutes or longer). If a DNO uses periodic counts of recloser operations to calculate the number of short interruptions, the number of Customers interrupted will be based on an estimate of those Customers who would have been interrupted. The DNO must base this estimate on the assumption that the circuit affected was configured normally, unless the DNO has robust information that there were abnormal feeding arrangements in place at the time.

2.31. The dates and times of short interruptions are not required. Where short interruptions are identified from a periodic count of circuit breaker operations, the counters must be read annually between 1 January and 31 March to ensure a reasonable approximation to a 12-month total.

### **Restoration Stage**

2.32. Where a Customer's supply is restored for a period of less than three minutes, the calculation of the duration of interruptions to supply must ignore the time for which Customers' supplies were restored, ie the minutes for which the Customers are restored will be included in the count of minutes lost as if there were no Restoration.

2.33. There must be no limit to the number of Restoration Stages for an incident.

#### *Start of a Restoration Stage*

2.34. The start of a Restoration Stage is the date and time at which supply to Customer(s) is interrupted and/or a circuit or part of a circuit is de-energised.

#### *End of a Restoration Stage*

2.35. The end of a Restoration Stage is the date and time at which Customer(s) have their supply restored and/or a circuit or part of a circuit is re-energised.

#### *Customers involved in a Restoration Stage*

2.36. The Customers involved in a Restoration Stage are defined as the Customers connected to that part of the DNO's distribution network restored in the Restoration Stage, including restorations from mobile generators and temporary connections.

2.37. The number of Customers interrupted for single-phase and two-phase LV incidents may be calculated on a pro rata basis, ie  $\frac{1}{3}$  or  $\frac{2}{3}$  of the total number of Customers connected to the LV circuit, or part of circuit, affected. Customers with a three-phase LV supply (where these can be identified) are considered to be interrupted when supply is interrupted to one or more of the three phases. Individual

Customer phase connections do not need to be identified for the purpose of reporting. To assist in the audit process, DNOs can record the number and phases of fuses that have operated in the event of an incident on the LV system.

2.38. For HV incidents, in the interest of simplicity and consistent reporting, if one phase of a three-phase circuit is disconnected it must be considered that two-thirds of Customers connected downstream of the point of disconnection had their supplies interrupted.

2.39. Where a connectivity model is in place it must be used consistently<sup>4</sup> to derive the number of Customers interrupted on a particular element (eg LV feeder) of the network modelled. Where the section of network involved is a subset of a modelled network element (eg LV service), the number of Customers interrupted may be derived from records or from information available on site, supported by an appropriate audit trail, eg the property numbers involved, the location of the open circuit fault.

2.40. Customers involved for HV, EHV and 132kV must take account of the real-time changes to 132kV/EHV/HV network configuration during Restoration, which may be identified from a connectivity model.

2.41. Customers involved in each Restoration Stage may be identified from a connectivity model in which Customer information is individually linked with the appropriate section of network to which they are connected.

2.42. The date and time of interruption and the date and time of Restoration must be recorded for each Restoration Stage. The numbers of Customers involved and the elapsed time in each Restoration Stage will be used to calculate the number of Customers interrupted and duration of interruptions to supply.

### **Temporary Connection**

2.43. An LV backfeed that is a permanent feature of the Distribution System must not be treated as a temporary connection. The bunching of two phases or the use of a temporary loop service is to be treated as temporary connections.

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<sup>4</sup> As such where the number of calls exceeds the number of customers predicted as being off supply the DNO must adhere to the model, taking account of any three-phase LV customers, although Ofgem would expect to see robust processes in place to identify and correct mis-allocated customers.

## Clock Stopping

2.44. Where ~~(i) access~~ On or after 00:00 on 1 April 2019<sup>5</sup> DNOs may apply Clock Stopping only if:

- The DNO cannot continue work to ~~DNOs~~ provide a Restoration because of circumstances outside its control;
- There is no alternative means of Restoration available to the DNO; and
- One of the circumstances in paragraph 2.45 applies.

2.45. This paragraph applies where:

- (i) Access to the DNO's equipment, which is necessary to restore supplies, is not possible, ~~for example due (but to the DNO's equipment being submerged in flood water.~~
- (ii) Access to the DNO's equipment, which is necessary to restore supplies, is not limited) to environmental factors possible because routes<sup>6</sup> that would otherwise give access are blocked (such as that a four wheel drive vehicle that is suitable for off-road conditions could not pass) because of one or more of the following: flooding, fallen trees, land slides, or heavy snow; and (ii) supplies cannot be.
- (iii) Access, which is necessary to restore supplies, is explicitly prevented by the emergency services<sup>7</sup>, but only during the period of time in respect of which access is denied.
- (iv) Access, which is necessary to restore supplies, is explicitly prevented by government authorities (Central Government<sup>8</sup> or Local Government<sup>9</sup>), but only during the period of time in respect of which access is denied.

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<sup>5</sup> For Clock Stopping events before 00:00 on 1 April 2019 licensees should refer to Version 4 of Annex F of the Regulatory Instructions and Guidance.

<sup>6</sup> Route means a way that may be travelled to a particular destination, including the means of accessing that destination i.e. the asset concerned.

<sup>7</sup> A Police Force, an Ambulance Service, a Fire and Rescue Service or Her Majesty's Coastguard

<sup>8</sup> A department, company or agency (<https://www.gov.uk/government/organisations>) through which the government of the United Kingdom (or one of the devolved administrations) exercises its executive authority.

<sup>9</sup> A unitary, county, district, borough, city, town or parish council.

- (v) Access, which is necessary to restore supplies, is explicitly prevented by other utilities<sup>10</sup>, but only during the period of time in respect of which access is denied.
- (vi) A Customer<sup>11</sup> requests that Restoration work (permanent or temporary) that the DNO is undertaking or needs to undertake on the Customer's premises is delayed, but only during the period of time requested by the Customer, e.g. overnight.
- (vii) A DNO has taken all reasonable steps to contact a Customer but has been unable to do so and access to the Customer's premises is necessary to provide a Restoration. A DNO asking a Customer whether the Customer would accept having its supplies restored through other means such as remote switching, and (iii) network reconfiguration at a later time is not a valid reason for Clock Stopping. The DNO may apply Clock Stopping from the time at which access to the Customer's premises is necessary, not from the time at which the DNO has failed to make contact with the Customer. For the DNO to be able to apply Clock Stopping in this scenario, the DNO must attempt to contact the Customer for 72 hours from the date of the Incident or until the DNO successfully makes contact with the Customer, whichever is sooner. Where a DNO has been unable to contact the Customer directly, it should make efforts to contact the Customer via their supplier.
- (viii) Access, which is necessary to provide a Restoration, is prevented and alternative LV generation is not economic, the DNO will be allowed to stop the DNO does not have the legal powers to immediately obtain the necessary access without recourse to or application to third parties (*this paragraph does not apply where the DNO cannot access its assets on another entity's premises because it has not negotiated appropriate access rights*). The DNO may apply Clock Stopping from the time at which access was prevented. This includes where access is necessary to premises or the public highway, such access is prevented or impacted by a third party and the DNO does not have a right to obtain the necessary access.

2.46. Where the DNO applies Clock Stopping in accordance with paragraph 2.45, it must restart the clock for the period where access is prevented. The DNO must keep auditable records detailing the precise situation on site and the attempts made to restore supplies by alternative means. The clock must be restarted where:

- (i) in respect of paragraph 2.45(i), the flooding has receded such that the DNO is able to access its assets;

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<sup>10</sup> A company or other organisation responsible for infrastructure relating to water, gas, electricity, rail or telecommunications.

<sup>11</sup> In this scenario this may include an individual empowered to act on behalf of the Customer.

- ~~(i)(ii) in respect of paragraph 2.45(ii), as soon as access is available—it becomes aware that a route is reopened that allows access to the relevant asset;~~
- ~~(iii) in respect of paragraphs 2.45(iii), (iv), (v) and (vii), as soon as it becomes aware that access is available;~~
- ~~(iv) in respect of paragraph 2.45(vi), at the time the DNO agrees with the Customer that the delay in Restoration work would end. The DNO must not restart the clock at the time of Restoration. Where the Customer requests that Restoration work be delayed, the DNO must stop the clock overnight and the DNO and the Customer do not agree a time at which Restoration work will restart, the DNO must restart the clock at the earliest of either: 07:00am on the day following the Customer's request for the period requested a delay or the time at which access is available, whichever is earlier.~~
- ~~(v) in respect of paragraph 2.45(viii), when the circumstances under that scenario no longer apply.~~

2.47. Where the DNO applies Clock Stopping under paragraph 2.45 it must retain an auditable, evidence-based record so as to allow an after the event review to confirm the validity of each occasion on which the DNO applied Clock Stopping. Examples of the type of evidence a DNO could retain are:

- ~~(i) in respect of paragraph 2.45(i), photographs showing flooding of its assets or post-event photographs showing flood lines;~~
- ~~(ii) in respect of paragraph 2.45(ii), photographs evidencing that routes are blocked;~~
- ~~(iii) in respect of paragraphs 2.45(iii), (iv), and (v), the relevant organisation's incident number or the name or identification number of the individual preventing access or a document issued by the Customer. The clock must be restarted at the time, agreed with the Customer, that the delay in Restoration work would end. The DNO must keep appropriate audit records relevant organisation confirming that access is or was prohibited;~~
- ~~(i)(iv) in respect of paragraph 2.45(vi), evidence setting out the details of the agreement (this could include the name of the Customer request and agreed delay. In the records it must be clear, their contact details and a summary of the discussion with the Customer where a verbal agreement is made) to delay Restoration work, which clearly show that the Customer has chosen for the work on the Restoration work to be delayed, and where applicable all Customers affected by the delay are in full agreement. A DNO asking a Customer whether they would accept having their supplies restored later is not an example which is considered a valid reason for clock stopping-;~~

~~2.43. Where access necessary to restore supplies is explicitly prevented by the emergency services, government authorities or other utilities (eg gas and water) (and supplies cannot be restored through other means such as remote switching or network reconfiguration and the use of temporary generation is not economic), the DNO must stop the clock for the period where access is denied. The DNO must keep auditable records detailing orders given by the emergency services or government authorities and the times of the orders. The clock must be restarted as soon as access is available.~~

(v) Where the DNO is in a position to restore supplies in respect of paragraph 2.45(vii), evidence of the DNO's efforts to contact the Customer (in the first instance) directly and, where the DNO has been unable to do so, via the Customer's supplier; and

(vi) in respect of paragraph 2.45(viii), records which enable the DNO to demonstrate (i) why it was prevented from undertaking Restoration work; and (ii) that it was prevented from continuing to carry out Restoration work.

2.48. The circumstances below describe when a Restoration can be deemed to have been made:

(i) Where the DNO is in a position to restore supplies on a permanent basis, but the Customer either requests:-

- to be left off supply; or they have
- to reset their be present at its own equipment, then when Restoration takes place.

In the DNO must treat above circumstances, the time they were at which the DNO was able to restore supplies; but prevented from doing did not do so by Customer due to the Customer's request, as shall be the Restoration time.

Paragraph 2.48(i) does not apply if:

- the DNO must undertake further work that is not contingent on the actions of the Customer in order to provide a Restoration; or
- The DNO asks a Customer whether the Customer would accept having its supplies restored at a later time.

~~(i)(ii) Where a Customer has its own generator and classify this as, therefore, refuses the provision of a temporary supply arrangement generator from the DNO, and the DNO has:~~

~~a) Where an interruption~~

~~a) provided the Customer with fuel for its generator, which the Customer accepted;~~

~~b) offered to reimburse the Customer for fuel used for its generator as a result of the Interruption, which the Customer accepted; or~~

~~c) made a reasonable offer to provide fuel or appropriate reimbursement for fuel to the Customer and the Customer refuses that offer.~~

~~The time at which either a), b) or c) occurs and shall be the Restoration time.~~

~~(iii) Where the DNO has a non-firm contract with the Customer, once firm load which stipulates a minimum agreed capacity. The Restoration time shall be the time at which that minimum agreed capacity (as required by the contract) has been restored, the Restoration of non-firm load can be treated as a clock stop. The clock must be restarted as soon as non-firm supply is restored. The DNO must notify Ofgem of these clock stops in the reporting pack. If the interruption lasts less than three minutes after the clock stop, due to using switching via automated equipment, then this does not need to be reported. The DNO must keep appropriate audit records of these interruptions.~~

~~(iv) Where the DNO has applied Clock Stopping under paragraph 2.45(vii), has discharged the requirements of that paragraph and has not been able to gain access after 72 hours. In such circumstances the DNO may deem Restoration to be made at the time at which access to the Customer's premises was necessary, not from the time at which the DNO has failed to make contact with the Customer. When reopening the Incident, or creating a new Incident, the DNO must make the link to the earlier Incident clear.~~

2.49. Where the DNO applies deemed Restoration under paragraph 2.48, it must retain an auditable, evidence-based record so as to allow an after the event review to confirm the validity of each occasion on which the DNO deemed Restoration to have occurred. Examples of the type of evidence the DNO could retain are:

(i) in respect of paragraph 2.48(i), evidence setting out the details of the agreement to delay Restoration work, which clearly show that the Customer has chosen for the Restoration work to be delayed;;

- (ii) in respect of paragraph 2.48(ii), a copy of any offers made to Customers (if such offers have been made in writing, including by e-mail) or recordings of conversations with Customers (if such offers are made over the telephone) and any response from Customers to any such offers;
- (iii) in respect of paragraph 2.48(ii), the relevant contracts; and
- (iv) in respect of paragraph 2.48(iv), evidence of the DNO's efforts to contact the Customer (in the first instance) directly and, where the DNO has been unable to do so, via the Customer's supplier.

2.44-2.50. The DNOs may only apply Clock Stopping to IIS and must not apply Clock Stopping to the Guaranteed Standards of Performance. In the event that a DNO wishes to apply an exemption from making a payment in respect of a failure of a Guaranteed Standard, the DNO must do so in accordance with the Electricity (Standards of Performance) Regulations 2015.

## Updating the connectivity model

2.45-2.51. It is important that the connectivity model is kept up to date. The accuracy with which the number and duration of interruptions to supply are reported is, in part, determined by the frequency with which the connectivity model is updated. A reasonable timeframe for updating the connectivity model is likely to be within 14 days of the DNO being formally notified of any permanent changes to the network or Customer connections. (For example, a change expected to be in place for at least 28 consecutive days may be regarded as a permanent change). In addition, the numbers of Customers in the model could be reconciled with the total number of connected Customers on a monthly basis.

## Reporting requirements

### Customers

2.46-2.52. DNOs are required to report information on the number of Customers according to the following categories:

- total number of Customers
- total number of new Customers
- total number of disconnected Customers.

### Disaggregation of incidents

2.47-2.53. It is necessary to collect information on the number of Customers interrupted and duration of interruptions to supply at a disaggregated level. This will help in comparing performance across DNOs, setting performance targets and determining appropriate audit samples, and could be used for making adjustments within the incentive scheme. There are seven types of mutually exclusive disaggregation required, these are:

- by incident and Restoration Stage
- by source, voltage level and main equipment involved (MEI)
- by duration band (both pre-arranged and unplanned CI)
- by frequency band (higher voltage unplanned CI only)
- by HV circuit
- by reason for ~~clock-stopping~~ Clock Stopping
- by Exceptional Event category.

### **Disaggregation by both incident and Restoration Stage**

2.48-2.54. In addition to reporting on the effect on Customers of all incidents arising on the Distribution System, the number of Customers interrupted and duration of interruptions to supply must be reported separately by incident and Restoration Stage.

### **Disaggregation by source, voltage level and main equipment involved (MEI)**

2.49-2.55. In addition to the above the number of Customers interrupted and duration of interruptions to supply arising from the following categories must be separately identified:

- unplanned incidents on the Distribution System in total and by the following classifications:
  - 132kV non-damage
  - 132kV damage
  - EHV non-damage
  - EHV damage
  - HV non-damage
  - HV damage
  - LV non-damage
  - LV overhead mains - damage
  - LV underground mains - damage
  - LV all other switchgear, plant and equipment - damage
  - LV plant & equipment link boxes only - damage
  - LV services overhead (excl cut-outs) – damage and non-damage
  - LV services underground (excl cut-outs) – damage and non-damage.

2.50-2.56. DNOs are required to provide cause code and Main Equipment Involved (MEI) information for every unplanned damage incident. A list of cause codes are provided in Appendix 5 and MEI Codes are in Appendix 6. For incidents at HV DNOs must also provide the unique circuit identification number as set out in paragraph 2.67.

2.51-2.57. DNOs are required to identify pre-arranged incidents on the Distribution System by the following classifications:

- EHV

- HV pole-mounted or overhead
  - Load Related
  - Non-Load Related
  - Inspections
  - Repair & Maintenance
  - Tree Cutting
  - Network Innovation Competition or Network Innovation Allowance
  - LCN Fund Second Tier
- HV ground-mounted or underground
  - Load Related
  - Non-Load Related
  - Inspections
  - Repair & Maintenance
  - Tree Cutting
  - Network Innovation Competition or Network Innovation Allowance
  - LCN Fund Second Tier.
- LV pole-mounted or overhead
  - Load Related
  - Non-Load Related
  - Inspections
  - Repair & Maintenance
  - Tree Cutting
  - Network Innovation Competition or Network Innovation Allowance
  - LCN Fund Second Tier.
- LV ground-mounted or underground
  - Load Related
  - Non-Load Related
  - Inspections
  - Repair & Maintenance
  - Tree Cutting
  - Network Innovation Competition or Network Innovation Allowance
  - LCN Fund Second Tier.

2.52-2.58. DNOs are also required to provide incident and stage information relating to:

- incidents on the systems of NGET or the transmission companies (in Scotland)
- incidents on the systems of distributed generators
- incidents on any other connected systems – which must be identified.

### **Reason for Clock Stopping**

2.53-2.59. DNOs are required to report information on the use of ~~clock~~ **stopping** in the QoS Interruptions Stage Data Reporting Pack under

the Reason for Clock Stop column, according to the following categories: for Incidents after 00:00 on 1 April 2019:<sup>12</sup>

- ~~AD means~~FW – where access is denied, ~~as outlined in under~~ paragraph 2.4445(i),
- ~~RD means requested delay, as outlined in paragraphs 2.45 and 2.47~~
- ~~EM means emergency services, as outlined in~~AP – where access is not possible under paragraph 2.45(ii),
- ES – where access is prevented under paragraph 2.45(iii),
- GA – where access is prevented under paragraph 2.4645(iv),
- ~~NF means non-firm, as outlined~~UT – where access is prevented under paragraph 2.45(v),
- CD – where access is delayed under paragraph 2.45(vi),
- CC – where access is delayed under paragraph 2.45(vii), and
- LB – where access is prevented or delayed under paragraph 2.45(viii).

2.60. DNOs are required to report information on the use of deemed Restorations under the Restoration column, where they occur on or after 00:00 on 1 April 2020 (DNOs may use these codes prior to this time), according to the following categories:

- R1 – under the scenario described in paragraph 2.48(i),
- R2 – under the scenario described in paragraph 2.48(ii),
- R3 – under the scenario described in paragraph 2.48(iii), and
- R4 – under the scenario described in paragraph 2.48(iv).

### **Exceptional Event Category**

~~2.54.~~2.61. DNOs are required to report information on the category of Severe Weather Exceptional Event or Other Exceptional Event that they believe that an incident may part of in the QoS Interruptions Stage Data Reporting Pack under the EE Category column, according to the following categories:

- 1 means a category one Severe Weather Exceptional Event
- 2 means a category two Severe Weather Exceptional Event
- 3 means a category three Severe Weather Exceptional Event
- 9 means an Other event as per paragraph 2D.34 of CRC 2D (Adjustment of licensee's revenues to reflect interruptions related quality of service performance) of the electricity distribution licence.

~~2.55.~~2.62. The thresholds of the various categories are provided in Appendix 3. Similarly they appear in the QoS Interruptions Stage Data Reporting Pack on the Interruptions worksheet.

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<sup>12</sup> For Clock Stopping events before this time the codes in Version 4 of Annex of the Regulatory Instructions and Guidance should be used.

## Exceptional Events impact

**2.56:2.63.** This worksheet in the QoS Interruptions Stage Data Reporting Pack, provides a summary Exceptional Events (both the Severe Weather and Other Exceptional Events) claimed for (and not subsequently withdrawn) during the reporting year. It calculates a potential net position for a DNO, prior to weighting and verification by Ofgem (in cells F49:G54).

**2.57:2.64.** DNOs are required to report the number of Exceptional Events that they have claimed for (and which have not been withdrawn subsequently) during the reporting year in cells F5:F8. The CI and CML thresholds in customers interrupted and minutes of supply lost for 'Other' events are automatically calculated in cells L1:N4, for use in determining the impact of 'Other' events less the thresholds.

**2.58:2.65.** DNOs are also required to populate cells L15:N35 with the incident information relating to all Other Exceptional Events for the reporting year which have been claimed (and not subsequently withdrawn) in the EE Impact. The values calculated in cells L49:P54 are to be net of the respective CI and CML thresholds that apply for that DNO.

## Disaggregation by duration band (pre-arranged and unplanned CI only)

**2.59:2.66.** DNOs are required to separately disaggregate both the pre-arranged and unplanned number of Customers interrupted (including all voltage levels) by duration band in order to provide a better understanding of how Customer minutes lost are made up and of DNOs' effectiveness in restoring Customers' supplies following an interruption. The Customer minutes lost used for this disaggregation must be post any ~~clock stopping~~Clock Stopping.

**2.60:2.67.** DNOs must report separately both the pre-arranged and unplanned number of Customers interrupted (excluding re-interruptions and re-interruptions only) by the following duration bands:

- 3 minutes up to but excluding 1 hour
- 1 hour up to but excluding 2 hours
- 2 hours up to but excluding 3 hours
- 3 hours up to but excluding 6 hours
- 6 hours up to but excluding 12 hours and from 12 hours onwards,

in 6-hour bands up to and including the longest time any Customers have been recorded as being off supply. Time bands with no Customers interrupted must be reported with a zero count.

## Disaggregation by frequency band (higher voltage unplanned CI only)

**2.61-2.68.** DNOs must report the unplanned number of Customers interrupted (excluding re-interruptions) by frequency band starting with Customers experiencing zero higher voltage interruptions and rising in single increments up to Customers experiencing 10 higher voltage interruptions. The DNO must also identify the total number of Customers experiencing more than 10 higher voltage interruptions and the largest number of higher voltage interruptions experienced by any Customer. (Higher voltage interruptions include HV, EHV and 132kV interruptions).

## Disaggregation by HV circuit

**2.62-2.69.** The number of unplanned incidents, Customers interrupted and duration of interruptions to supply arising on HV systems need to be reported by HV circuit to support work on comparing quality of service performance.

**2.63-2.70.** For each HV circuit DNOs must report the following circuit characteristics and performance information:

- the unique circuit identifier (where possible this must be the same as for previous years so that comparisons can be made over time)
- the voltage level (eg 6.6 kV, 11 kV, 20 kV)
- the number of connected Customers (on 31 March)
- the length of overhead line in kilometres (on 31 March)
- the length of underground cable in kilometres (on 31 March)
- the number of incidents affecting the circuit
- the total number of Customer minutes lost
- the total number of Customers interrupted (excluding re-interruptions).

**2.64-2.71.** Two versions of the HV circuit information must be provided:

- Containing all HV incidents and associated Customers interrupted and Customer minutes lost
- Excluding HV incidents, Customers interrupted and Customer minutes lost for the duration of events for which Exceptional Event exemptions have been requested and which meet the criteria set out in CRC 2D (Adjustment of licensee's revenues to reflect interruptions related quality of service performance) of the electricity distribution licence. The approach to treating such events must be agreed with Ofgem in advance of the data being provided. DNOs must provide summary data for the events which have been excluded including: the number of days' performance which has been removed, the number of incidents, Customers interrupted and Customer minutes lost.<sup>13</sup>

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<sup>13</sup> The performance figures excluding Exceptional Events plus the summary data for those events should reconcile with the information containing all incidents.

~~2.65~~~~2.72~~. DNOs must also provide total number of incidents, total number of Customers interrupted and total number of Customer minutes lost for any incidents that are not attributable to specific circuits. These must be grouped into one of the two following categories:

- changes to HV topology or misallocation (eg circuit removed during the reporting period)
- loss of HV circuit infeed (eg a fault on an 11 kV bus-bar).

~~2.66~~~~2.73~~. In addition to the above, for each loss of HV circuit infeed, the number of Customers interrupted and number of Customer minutes lost for each incident must be provided.

~~2.67~~~~2.74~~. The incidents, total number of Customers interrupted and total number of Customer minutes lost for the disaggregated reporting for HV circuits plus unattributable HV performance must reconcile with the total HV performance.

### **Definition of a HV circuit**

~~2.68~~~~2.75~~. The DNOs have submitted their existing mix of circuit types to Ofgem. Any change in the definition of HV circuits to be used when reporting performance on a disaggregated circuit-by-circuit basis must be agreed with Ofgem in advance of the data being provided.

### **Circuits with non-zero length and non-zero connected Customers**

~~2.69~~~~2.76~~. These are valid circuits and must be included in the HV circuit dataset submitted by DNOs.

### **Circuits with non-zero length and zero connected Customers**

~~2.70~~~~2.77~~. These are valid circuits that would normally be used to provide alternative supplies to one or more Customers. These circuits must be included in the HV dataset submitted by DNOs. However, Customers interrupted and Customer minutes lost per Customer would be inconsistent with zero connected Customers. Therefore it will be necessary for DNOs to re-attribute any incidents, Customers interrupted and Customer minutes lost as if the network were normally configured.

### **Circuits with zero length and non-zero connected Customers**

~~2.71~~~~2.78~~. This classification of circuits is present for two reasons:

- a circuit exists but there is actually no circuit length, eg the exit point of a Customer's connection is the circuit breaker
- a circuit exists and there is actual circuit length that is not being reported by the functionality of the mapping system or GIS.

2.72-2.79. In both cases, these are valid circuits that must be included in the HV circuit dataset submitted by DNOs. However, in order to include such circuits in the dataset, a nominal circuit length of 100 metres must be attributed to each of these circuits.

### **Circuits with zero length and zero connected Customers**

2.73-2.80. These HV circuits are not valid and must not be included in the HV circuit dataset submitted by DNOs. Where appropriate any incidents, Customers interrupted and Customer minutes lost must be re-attributed as if the network were normally configured.

## **Disaggregation by Occurrences Not Incentivised**

2.74-2.81. For the purpose of reporting, DNOs are required to report the total number of Occurrences Not Incentivised according to the following categories:

- power system voltage equipment/no unplanned incident
- other occurrences (not affecting power system voltage equipment)
- calls logged in reporting system but not causing DNO activity.

2.75-2.82. These categories should comprise of incidents as outlined here:

- Power system voltage equipment/no unplanned incident, which contains:
  - Emergency disconnections
  - Streetlights/Street Furniture/Unmetered Services/Unmetered Cut Outs
  - Cut Outs (Metered Services) Cut Out Fuses Only (Metered Services) Asset repairs instigated by trouble calls.
- Other occurrences (not affecting power system voltage equipment), which contains:
  - Abortive visits – no immediate work required
  - Responding to critical safety calls
  - Pilot wire failures.
- Calls logged in reporting system but not causing DNO activity, should include:
  - Occurrences not requiring site visits
  - All other calls logged but not pursued by DNO.<sup>14</sup>

2.76-2.83. DNOs are required to report the total number of Occurrences Not Incentivised incidents for each classification according to the following categories in the respective categories:

- Incident reference number

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<sup>14</sup> DNOs are to input the total number of occurrences related to this category in the total worksheet.

- Voltage
- Start date and time of incident.

## Short Interruptions

**2.77:2.84.** DNOs are required to report the total number of short interruptions and disaggregated number of short interruptions that are due to the following four causes:

- The automatic operation of distribution network switchgear where the supplies of some or all of the Customers involved are successfully restored by automatic switching within less than three minutes of the first interruption.
- The automatic operation of distribution network switchgear where the supplies of some or all of the Customers involved are successfully restored by manual or remote control switching within less than three minutes of the first interruption. This definition includes only the initial Restoration. Further short interruptions during subsequent stages of fault sectionalising are not to be reported.
- The manual or remote operation of distribution network switchgear for reasons such as deliberate disconnection for operational or emergency reasons.
- The operation of switchgear on the networks of NGET/transmission companies (in Scotland) or other connected systems and distributed generators.

**2.78:2.85.** Short interruptions do not need to be disaggregated by voltage or by HV circuit. Where DNOs make significant use of automatic reclosing devices and automatic switching at the LV level, the number of short interruptions at this voltage level must be included in the appropriate short interruption categories identified above.

## Required level of accuracy for reporting interruptions data

**2.79:2.86.** Ofgem considers that it is important that information used to implement the incentive scheme is sufficiently accurate to enable comparisons to be made over time and if appropriate between DNOs. Ofgem has specified minimum levels of accuracy for the reporting of:

- the number of Customers interrupted – at the 132kV and EHV, the HV and LV levels
- the duration of interruptions to supply – at the 132kV and EHV, the HV and LV levels.

**2.80:2.87.** Table 2.1 specifies the minimum levels of accuracy required for the reporting of the number of Customers interrupted and duration of interruptions to supply. DNOs are required to meet the minimum levels of accuracy for the three

voltage categories shown below. Meeting one of the required levels of accuracy is not sufficient to satisfy the requirements.

**Table 2.1 Accuracy thresholds**

Voltage	Overall accuracy	Initial stage accuracy (smaller sample)
EHV and 132kV	97 per cent	99 per cent
HV	95 per cent	97 per cent
LV	90 per cent	93 per cent

## Other events knowledge sharing

~~2.81~~~~2.88~~. One of the considerations for Ofgem in calculating the impact of any claimed (and not subsequently withdrawn) Other Exceptional Event, is that, for this event, the DNO has met the criteria for preventative and mitigating actions.<sup>15</sup>

~~2.82~~~~2.89~~. To facilitate awareness and learning across the industry of events that have arisen, solutions tried, and lessons learned which other DNOs should be aware of, DNOs are therefore required to share with DNO members and Ofgem their initial learning points from such events within three months of the event. This can be through industry forums, directly between DNOs or through the Quality of Service working group.

~~2.83~~~~2.90~~. In addition, when the Appropriate Auditor has completed their report, this report shall be shared with DNOs through the Quality of Service working group.

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<sup>15</sup> See Appendix 4 of CRC 2D (Adjustment of licensee's revenues to reflect interruptions related quality of service performance) of the electricity distribution licence.

## 3. Guidance on the guaranteed standards of performance

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### Introduction

3.1. DNOs and IDNOs are required to meet the guaranteed standards of performance under The Electricity (Standards of Performance) Regulations (“the Regulations”). This chapter provides guidance for electricity distributors and any other interested parties on what each standard is, when it applies and the exemptions that may be applied. It also details associated reporting requirements under standard condition 11 (Reporting on performance) of the electricity distribution licence. It also gives brief guidance on the interpretation of certain codes of practice reporting requirements relating to the provision of services for vulnerable Customer groups.

3.2. DNOs and IDNOs are required to report to Ofgem on their performance against these standards in accordance with standard condition 11 (Reporting on performance) of the electricity distribution licence. Ofgem will review the data, alert the DNOs where corrections are needed and provide finalised returns to Citizens Advice and Citizens Advice Scotland (or if this changes, the relevant body) annually.

3.3. This chapter is a guideline and, in the event of any dispute as to the application of the guaranteed standards, the Regulations will be the definitive point of reference.

### Guaranteed Standards of Performance Reporting Pack

3.4. The Guaranteed Standards of Performance Reporting Pack provides a quantification of the DNOs’ annual guaranteed standards failures, exemptions invoked against those failures, valid claims for payments, payments made, the value of those payments, number of ex-gratia payments made, and the values of those ex-gratia payments.

3.5. As part of Ofgem’s review of the data, Ofgem compares the data and values in the guaranteed standards submission to other submissions provided by the DNO, including the Quality of Service related reporting packs, and Costs and Volumes Reporting Pack.

### The scope of the standards

3.6. To facilitate reporting, each electricity distribution guaranteed standard (EGS) has been given a reference number: for example, regulation 5 (duty to restore supply within 12 hours following a fault – under normal conditions) will be reported upon as EGS2.

3.7. The range of EGSs and reporting code numbers is summarised in Table 3.1.

**Table 3.1: Guaranteed Standards - Electricity Distribution**

Regulation	Activity	Reporting code
11	Responding to operation of distributor's fuse	EGS1
5	Supply restoration – normal conditions	EGS2
10	Supply restoration - multiple interruptions	EGS2A
6	Supply restoration - normal conditions (5,000 or more premises interrupted)	EGS2B
8	Supply restoration - rota disconnections	EGS2C
12	Notice of planned interruption to supply	EGS4
13	Investigation of voltage complaints	EGS5
17	Making and keeping appointments	EGS8
19	Notification and making of payments owed under the guaranteed standards	EGS9
7	Supply restoration – category 1 Severe Weather conditions	EGS11A
7	Supply restoration – category 2 Severe Weather conditions	EGS11B
7	Supply restoration – category 3 Severe Weather conditions	EGS11C

## General guidance and interpretation

3.8. This section is intended to provide guidance to those who have to apply the guaranteed standards on a day-to-day basis and to assist in ensuring greater consistency in the application of the guaranteed standards by electricity distributors. The current versions of the guaranteed standards are those established by the Regulations. The Regulations remain the authoritative source and are not replaced by this guidance. Independent legal advice must be sought wherever appropriate.

3.9. If distributors publish guidance on the guaranteed standards, or give guidance to individual Customers, that guidance must reflect the contents of this document or subsequent versions of it. The notice of rights<sup>16</sup> that each distributor is required to provide for the benefit of Customers at least once in any period of 12 months must be consistent with this document.

### General points

#### *The role of agents and contractors*

3.10. The distributor may contract out work that is covered by the guaranteed standards. If it does so, it must be aware that it is still liable to meet penalty

<sup>16</sup> Regulation 22 of the Electricity (Standards of Performance) Regulations 2015.

payments, report failures, etc, as it would have had the work been allocated to its own staff.

#### *Customer notifications and contact*

3.11. It is for the distributor to decide which of its premises are appropriate for the receipt of notifications under the guaranteed standards. However:

- these premises, their opening hours and their telephone numbers, where appropriate, must be clearly listed on all relevant publications of the distributor, and
- callers who contact inappropriate premises must be advised by the distributor's staff at those premises of the appropriate address and telephone number.

3.12. A distributor's staff are encouraged to contact their appropriate colleagues on behalf of the Customer when a Customer contacts inappropriate premises. The distributor should aim to ensure that such contacts are made promptly so as to enable the relevant guaranteed standard to be met within the specified time.

3.13. Subject to 3.14, where a call is received outside normal working hours, and where the distributor will treat this as having been received at the start of business on the following Working Day, the distributor must ensure that this practice is mentioned in its Notice of Rights.

3.14. For Customers who are registered on the Priority Services Register (PSR), where DNOs identify that they have been affected by a fault and are due a payment in respect of restoration of supply in normal and Severe Weather conditions (under EGS2, EGS2B, EGS2C, EGS11A, EGS11B, and EGS11C), DNOs should automatically make the payment(s), ie the DNO must not await the receipt of a claim from the Customer.

3.15. In respect of EGS2 (Normal Weather Restoration) and EGS11A, EGS11B, and EGS11C (Severe Weather), single premises power outage alerts originating from a smart meter are not reasonably expected to indicate no supply. Where an outage alert is received, the DNO should contact the customer as soon as reasonably practicable thereafter to check whether the customer is without power, but only between 8am and 9pm. However, this should not restrict the DNO from contacting a customer outside of those hours if the DNO considers it in the customer's interest to do so. For the purpose of the EGS2 (Normal Weather Restoration) and EGS11A, EGS11B, and EGS11C (Severe Weather), the single premises power outage alert originating from a smart meter will be deemed to have been received at the earliest of either 8am or when there is contact with the customer.

3.16. For all other non-PSR Customers, when the distributor is made aware that a customer is/was off supply and the standards of performance specified in respect of

restoration of supply in both normal and Severe Weather conditions (EGS2, EGS2B, EGS2C, EGS11A, EGS11B and EGS11C) have been potentially failed, DNOs must use reasonable endeavours over the following three months to identify and pay all who have been affected. If a distributor reasonably believes it has failed a Customer under any of these standards, it will be required to make a failure payment. In this instance, Customers do not need to make a claim (although all claims made to that distributor must be considered). For multiple interruptions (EGS2A) and notice of supply interruptions (EGS4), Customers are required to make a claim.

3.17. DNOs can move proactively to offer ex-gratia payments, under all Regulations. Where a distributor has made an ex-gratia payment to a Customer it must still accept any claim that such a Customer may subsequently lodge under the relevant guaranteed standard and, if the claim is valid, it must make a payment against the guaranteed standard less any ex-gratia payment already made in respect of the failure. The overriding principle here is that there is no double jeopardy. If a Customer has already received an ex-gratia payment of the same (or greater) amount than a guaranteed standards payment would have been and then lodges a claim, the money already paid counts as the guaranteed standards penalty payment. The difference should be recorded in the reporting pack. For example, a DNO makes an ex-gratia payment of £100 even though the standard's normal payment is £75. The customer subsequently claims against the same failure, but is not entitled to a further payment. The number of valid payments recorded in the reporting pack should be increased by one (the monetary amount automatically updates). Similarly the value of ex-gratia payments should be reduced to £25. For completeness of reporting the number of ex-gratia payments which are subject to a subsequent claim should be reported in the template under each Regulation.

3.18. In order for Ofgem to be able to make full and proper assessment of the extent to which Customers are being recompensed by distributors in respect of services provided under the guaranteed standards, it needs, in addition to details of payments made for failures of the standards, to have details of ex-gratia payments made proactively for failures of the guaranteed standards cited in paragraph 3.15. Ex-gratia payments may be paid due to:

- near-failures of any of the guaranteed standards
- situations where payment under the guaranteed standards has been excused by an applicable exemption
- paying an amount of failure payments in excess of prescribed levels.

3.19. In making a claim there is no requirement on Customers to mention the guaranteed standards when they make a claim. Companies must adopt a common-sense view of what constitutes a claim, and must not insist on a formal claim. If, for example, a Customer contacting a distributor about lengthy or frequent supply interruptions or an unnotified planned interruption gives the distributor reason to believe that he is seeking recompense of some kind for the inconvenience caused by such interruption(s) (as opposed to compensation for damaged appliances, lost freezer contents, etc), or is clearly expressing dissatisfaction with the supply interruption(s), then the distributor must be prepared to treat this contact as a claim under the relevant guaranteed standard. Claims must be accepted by letter, e-mail, telephone or personal call.

3.20. The distributor must keep a record of contacts it receives from Customers on matters that fall within the scope of the guaranteed standards. Nevertheless, for supply interruptions in normal and Severe Weather, distributors will be required to make a payment whether or not the Customer has lodged a claim, wherever they are able to identify failures of the Guaranteed Standards of Performance.

3.21. Distributors may in some circumstances seek specific and detailed information before establishing that a payment is properly due to the Customer. The effective date of a claim for payment is the date upon which the initial contact is made.

3.22. Customers and distributors should communicate directly in order to progress claims and wherever possible distributors are encouraged to resolve disputes. After opportunity for a distributor to resolve a dispute has been given and is unsuccessful, Customers must be advised of their right to refer any disputes to Ofgem for determination in accordance with the practice and procedure set out at Schedule 3 to the Electricity (Standards of Performance) Regulations 2015.

3.23. A substantive reply to a dispute must answer clearly and in full all the points raised by the Customer that are covered by the guaranteed standards. Where to do so would not be possible within the prescribed period, a reply will nonetheless be substantive if it provides as detailed a response to each point as is possible, together with good reasons why a full reply cannot be given.

3.24. Where the owner or operator of an inset distribution system (inset distributor) becomes liable to make a penalty payment to one or more of its directly connected Customers for failure of any of the guaranteed standards, and that liability arises wholly or partly from a failure, act or omission on the part of the distributor to whose distribution system the inset system is connected (host distributor), then the host distributor will be required to make all or part of an equivalent compensation payment directly to the inset distributor (and vice versa if the circumstances are reversed). The interaction between a host distributor and an inset distributor in such circumstances must be in accordance with the provisions of clause 49 of the Distribution Connection and Use of System Agreement (DCUSA).

3.25. Should a host distributor be liable to make payment to an inset distributors' customers in line with the circumstances in 3.23, such failures should not be recorded in the host distributor's guaranteed standards reporting return. The payments made and number of failures will be reported in the inset distributor's guaranteed standards reporting return only to avoid double reporting. The amount paid by the host distributor will be reported in its regulatory cost return only.

3.26. Paragraph 3.24 equally applies to the inset distributor so if the inset distributor is liable to make payment to the host distributors' customers, paragraph 3.24 will be reversed.

## **Guaranteed standards – electricity distribution**

### *EGS1 (Regulation 11) Relevant distributor's fuse*

3.27. Where a distributor is notified by a telephone call, text or email made by a Customer whose premises are directly connected to that distributor's distribution system, of an actual or apparent operation of its fuse so as to disconnect the supply to those premises (or of circumstances suggestive thereof), and the notification is received during working hours, it is required to send an appropriate person to replace or reinstate the fuse and restore supply within three hours on Working Days and within four hours on any other day. If it fails to attend within these times, the distributor must make payment of £30 to the Customer (domestic and non-domestic Customers).

3.28. The working hours are specified in part II of schedule 1 to the Regulations as being between 7.00am and 7.00pm on Working Days and between 9.00am and 5.00pm on any other day. Where the distributor is notified outside these hours, the distributor must take the required action as though it received the notice the following day at the start of working hours.

### *Exemptions specific to EGS1*

3.29. The following specific exemptions apply to EGS1:

- the Customer requested the distributor not to restore the supply
- the fuse had not, in fact, operated so as to disconnect the supply
- see paragraph 3.100 for general exemptions.

### *EGS2 (Regulation 5) Supply restoration – normal conditions*

3.30. In the event of the supply to a Customer's premises during normal conditions being discontinued as a result of a failure of, fault in or damage to the distribution system (but not the distributor's fuse), the distributor must restore supply to the Customer's premises within 12 hours of the time from which it was (or should reasonably have been) aware of the fault. If it fails to achieve this, it must, when aware, pay £75 for domestic Customers or £150 for non-domestic Customers, and a further £35 for each additional period of 12 hours in which supply is not restored. There is no cap on the amount of compensation payable under this standard. Note that the key point is whether or not the system has failed for 12 hours. The overall system failure could be attributable to more than one fault. If a Customer experiences 12 hours of continual non-supply, then a payment is due, whether or not any single contributory fault has been remedied. If the supply to a Customer's premises is re-interrupted during an incident, and that re-interruption lasts for 12 hours or longer, a payment is due.

3.31. For the Guaranteed Standards of Performance Reporting Pack, when reporting the number of supply interruptions and the number of premises affected for Regulations 5, 6, 7 and 8 (normal weather, 5,000+ incidents, rota disconnections

and severe weather), reportable QOS incidents should be reported, ie incidents lasting over 3 minutes in duration should be included.

3.32. Any partial restoration of supply to an individual Customer's premises (such as the loan of a suitcase generator for boiling a kettle or the restoration of one or two phases of a three-phase supply) prior to the contravention time must not be considered to constitute the meeting of this standard. If any such contingency restoration cannot provide the capacity and supply configuration specified in the relevant connection agreement, then the supply cannot be deemed to have been restored. However, it must be noted that such contingency arrangements could benefit both distributor and Customers from a Customer service perspective and could provide the distributor with a basis on which to approach the Customer for an exemption on the grounds that the Customer agrees that such action is sufficient to honour the distributor's obligation under the standard.

3.33. Where distributors use recorded messages to convey information concerning supply interruptions, those messages:

- must provide Customers with accurate and up-to-date information about supply interruptions and likely restoration times, and
- must not deliberately deter Customers from subsequently contacting the distributor if they are off supply for more than 12 hours.

3.34. The following specific exemption applies to EGS2:

- Where the supply to the Customer's premises is interrupted as a result of a failure of, fault in or damage to the relevant distributor's distribution system resulting from category 1, 2, or 3 Exceptional Severe Weather conditions.

3.35. The following specific exemptions apply to EGS2, EGS2B, EGS2C, EGS11A, EGS11B and EGS11C:

- It was not reasonable to expect the distributor to know that the supply had not been restored.
- If the supply is to an island via an underwater cable, where the failure, fault or damage occurred in the part of the cable situated below the high-water mark of spring tides and there is no alternative means normally available to the distributor to supply premises on that island.
- The distributor who, within three months of the supply being restored, has been unable to identify the Customer who is due compensation despite reasonable endeavours or has not received a claim for compensation from the Customer, and where that Customer is not a PSR Customer.
- The Customer informs the distributor before the contravention time that he does not wish the distributor to take any action, or any further action, in relation to the matter.
- The Customer agrees with the distributor that any action taken by the distributor within the contravention period, (or a promise of action made within that time and subsequently fulfilled by the distributor) is sufficient

to honour the distributor's obligation (but only if the distributor has made the Customer aware that, in so agreeing, he could be waiving his right to a guaranteed-standards payment).

- The failure of, fault in or damage to the distributor's distribution system and/or the failure to meet the contravention time was the result of an event for which emergency regulations under Part 2 of the Civil Contingencies Act 2004 apply.
- It was not reasonably practicable for the distributor to have taken action before the contravention time because of:
  - industrial action by the distributor's employees
  - an action or default by someone other than the distributor's or any other distributor's employee, officer or agent, or someone acting on behalf of an agent (this exemption does not apply to EGS2B)
  - an inability to gain necessary access to relevant premises (this exemption does not apply to EGS2B)
  - the likelihood that the distributor would break the law if it complied, or
  - other exceptional circumstances beyond the control of the distributor (other than Exceptional Severe Weather or the effects of Severe Weather) (this exemption does not apply to EGS2B).

so long as the distributor had in each individual case taken all reasonable steps both to prevent the circumstances from occurring and from having that effect.

- Where the interruption of supply only occurred due to failure of, fault in or damage to the distribution system of another distributor.
- It was reasonable for the distributor to regard information from the Customer as being frivolous (not deserving to be taken seriously) or vexatious (intended purely to cause nuisance to the distributor).
- The Customer had committed an offence under the Electricity Act 1989.<sup>17</sup>

#### *EGS2A (Regulation 10) Supply restoration - multiple interruptions*

3.36. This Regulation applies where the Customer's supply is interrupted for 4 or more periods each of not less than 3 hours during any period of 12 months commencing in each case on 1 April. The period of an interruption is deemed to start at the first time the distributor is informed by a Customer or another person that the supply to a Customer's premises has been interrupted, or is made aware by the operation of any automatic system it operates of circumstances in which the supply to the Customer has been or may reasonably be expected to have been interrupted.

3.37. Any temporary restoration of supply that does not exceed 3 minutes must be ignored and the interruption must be treated as continuous.

3.38. Qualifying interruptions must be experienced by the same Customer at the same premises.

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<sup>17</sup> Specifically, the customer committed an offence under paragraph 6 of Schedule 6 to the Electricity Act 1989

3.39. If such a pattern of interruptions occurs the distributor is required to make a payment of £75 to the Customer (domestic and non-domestic Customers), provided that the Customer makes a claim for payment within 3 months of the end of the period referred to above.

3.40. In order to verify any claims for payment under this guaranteed standard, distributors will need to know the identity of the premises in question (address or MPAN<sup>18</sup>), and the dates upon which the relevant interruptions occurred. Distributors' notices of rights must cover this point. Notwithstanding this, and in circumstances where a Customer is claiming for multiple interruptions but cannot cite precise dates, if the distributor's own information systems show that the Customer has (or can reasonably be supposed to have) experienced the requisite number of qualifying interruptions, the claim must be accepted.

3.41. Any single interruption arising in the following circumstances does not count as a valid interruption for the purposes of the guaranteed standard:

- If the Customer had asked the distributor not to take any action or any further action within the period of three hours after the interruption began.
- If the Customer had agreed that any action taken by the distributor within the three-hour period referred to above, (or a promise of action made within that time and subsequently fulfilled by the distributor) was sufficient to honour the distributor's obligation (but only if the distributor had made the Customer aware that, in so agreeing, he could be waiving his right to a guaranteed-standards payment).
- If the actions that might otherwise have been taken by the distributor to deal with the interruption within the three-hour period referred to above would have led to a breach of an enactment.
- If the distributor had given the Customer prior notice of its or any other distributor's intention to interrupt the supply.
- If the interruption arose out of a failure of, fault in or damage to either the transmission system to which the distributor's system or another distributor's system is connected or to a generating station connected to that transmission system.
- If the interruption arose out of a failure of, fault in or damage to a generating station connected to the distributor's distribution system or another distributor's distribution system.
- If it was an interruption to which EGS1, EGS2, EGS2B, EGS2C, EGS11A, EGS11B, EGS11C or EGS12 applied.
- If the interruption arose as a result of an act or default of the supplier to the premises concerned, or of the Customer.
- If the interruption arose out of an event resulting in interruption of supply to more than 500,000 Customers in Great Britain (as notified by Ofgem to the distributor).

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<sup>18</sup> Metering point administration number

- If the interruption and/or the failure to restore supply within three hours was the result of an event for which emergency regulations under Part 2 of the Civil Contingencies Act 2004 apply.

*Exemptions specific to EGS2A*

3.42. The following specific exemptions apply to groups of interruptions for the purposes of EGS2A:

- the distributor has not received a claim for compensation from the Customer within 3 months of the end of the relevant year (ie by 30 June in respect of the year ended the previous 31 March)
- the interruptions do not all apply to the same premises and the same Customer.

3.43. Note that the provisions of Regulation 20<sup>19</sup> cannot be invoked in relation to this guaranteed standard.

*EGS2B (Regulation 6) Supply restoration - normal conditions: 5,000 or more premises interrupted*

3.44. In the event of the supply to a Customer's premises during normal conditions being discontinued as a result of a single incidence of failure of, fault in or damage to the distribution system that interrupts the supply to 5,000 or more premises, the distributor must restore supply to the Customer's premises within 24 hours of the time from which it was (or should reasonably have been) aware of the loss of supply. If it fails to achieve this, it must, when aware, pay £75 for domestic Customers or £150 for non-domestic Customers, and a further £35 for each additional period of 12 hours in which supply is not restored, up to a cap of £300 in total.

3.45. For the Guaranteed Standards of Performance reporting pack, when reporting the number of supply interruptions and the number of premises affected for Regulations 5, 6, 7 and 8 (normal weather, 5,000+ incidents, rota disconnections and severe weather), reportable QOS incidents should be reported, ie incidents lasting over 3 minutes.

3.46. This standard only applies if supplies to more than 5,000 premises are interrupted by a single event, and it only applies in respect of the Customers whose supplies are interrupted by that event - it does not apply in respect of any Customers whose supplies may happen to be interrupted at the same time by a separate event that has not caused interruption of supplies to 5,000 or more premises.

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<sup>19</sup> The Electricity (Standards of Performance) Regulations 2015.

3.47. Paragraphs 3.29 and 3.30 above (written in respect of EGS2) apply in respect of EGS2B also, except with regard to the timelines.

*Exemptions specific to EGS2B*

3.48. The following specific exemptions apply to EGS2B:

- Where the supply to the Customer's premises is interrupted as a result of a failure of, fault in or damage to the relevant distributor's distribution system resulting from category 1, 2, or 3 Exceptional Severe Weather conditions.
- Exemptions listed under paragraph 3.34 of this guidance, with the following excluded<sup>20</sup>:
  - an action or default by someone other than the distributor's or other distributor's employee, officer or agent, or someone acting on behalf of an agent
  - an inability to gain necessary access to relevant premises
  - other exceptional circumstances beyond the control of the distributor (other than Severe Weather or the effects of Severe Weather).

*EGS2C (Regulation 8) Supply restoration - rota disconnection*

3.49. This standard applies in any situation in which the effects of a major incidence of constrained supply availability, related to an incidence or incidences of failure of, fault in or damage to the relevant distributor's distribution system, are mitigated by the distributor via a planned schedule of limited, intermittent restoration of supply on a rotational basis. The standard applies in respect of the resulting rota disconnection event during which Customers' supplies are deliberately interrupted by the distributor for a set duration on a rota basis so as to reduce the demand for electricity to the level of capacity that is available. A rota disconnection event in respect of a given Customer begins at the start of the first rostered disconnection affecting that Customer, ie it does not begin until the initial period of supply loss has been brought to an end by reconnection in accordance with the rota and is then deliberately disconnected for the first time, again in accordance with the rota. A rota disconnection event ends when supply is reconnected sustainably following the ending of the major incidence of constrained supply availability that gave rise to it.

3.50. This standard applies where, in the event of a rota disconnection event, the distributor does not restore supply on a sustainable basis to the Customer's premises before the cumulative total of supply interruption time under the rota reaches 24 hours. If it fails to achieve this, it must when aware pay £75 for domestic Customers or £150 for non-domestic Customers. This is a one-off payment that is not

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<sup>20</sup> Regulation 6(3)(a).

supplemented in any way to reflect the actual total of supply interruption time under the rota.

3.51. If the cumulative total of supply interruption time under a rota introduced for a rota disconnection event is greater than three hours but less than 24 hours, that cumulative total (regardless of how many individual rota disconnections have given rise to it) may be counted as one qualifying period of interruption for the purposes of EGS2A.

3.52. The initial period of supply loss up to the first restoration of supply on introduction of a rota is not part of the rota disconnection event and therefore falls to be treated separately, as appropriate, under EGS2, EGS2A, EGS2B, EGS11A, EGS11B or EGS11C.

#### *Exemptions specific to EGS2C*

3.53. The exemptions listed under paragraph 3.34 of this guidance.

#### *EGS4 (Regulation 12) Notice of planned interruption to supply*

3.54. The distributor is required to give its Customers at least two days' notice in writing when it plans to discontinue supply for an authorised purpose, stating the day of the interruption.

3.55. The distributor is required to give another distributor at least five days' notice in writing, when planned works on its own network for an authorised purpose may cause discontinuation of supply to Customers whose premises are connected to that other distributor's distribution system, stating the day of the interruption.

3.56. Where a distributor receives such a notice from another distributor, it must give those of its own Customers who may be affected by that other distributor's works at least two days' notice in writing, stating the day of the interruption.

3.57. An authorised purpose is testing or any other planned activity that the distributor is authorised by its licence to carry on in relation to its electric lines or electrical plant (other than the distributor's fuse, EGS1).<sup>21</sup>

3.58. If the distributor fails to give the required notice, or if the supply is interrupted on a different day from that notified, it must, on receipt of a qualifying claim, make a payment of £30 to a domestic Customer, or £60 to a non-domestic Customer. Claims must be made within one month of the day on which the interruption occurred. The

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<sup>21</sup> Regulation 12(8) of the Electricity (Standards of Performance) Regulations 2015.

EGS4 standard is not failed if the supply of a Customer who has received notice of a planned interruption is not interrupted at all.

3.59. The purpose of Regulation 12 is to minimise the inconvenience to Customers of necessary interruptions to their electricity supply. The minimum period of notice specified for each distributor seeks to strike a balance between providing adequate notice to Customers and not imposing unreasonable costs on the distributors while doing so. It follows that distributors should give Customers as much notice as they can of interruptions, even where the amount of notice is less than that required in the standard. In such circumstances, although the standard will have been breached the inconvenience to Customers will have been minimised. The distributor must state in its notice of rights that it intends to follow this approach.

3.60. To assist with clarity in reporting of this standard, two scenarios have been outlined below, the first is outside the scope of EGS4, while the second is within it. Where the electricity supply to a Customer's premises has been interrupted:

- As a result of a genuine error at the time of initiating a planned interruption, for example, where an operative inadvertently pulled a wrong switch at a substation that resulted in Customers whom it had never been intended to include in the planned outage having their supplies interrupted, then those Customers whose supplies it had never been intended to interrupt should be treated as outside the scope of EGS4 as it would have been impossible to give notice to Customers whose electricity supply it had never been planned to interrupt.
- As part of a planned interruption because of inaccuracy of the distributor's records, for example, where a network section point is shown as closed but is in fact open, so that more premises have now been interrupted than were the subject of a duly given notice, then all those Customers whose supplies have been interrupted fall within the scope of EGS4 as the distributor should ensure that its records are up to date prior to any planned work.

3.61. The distributor's notice of rights must also advise Customers that they are entitled to a payment if the notified interruption takes place on a different day from that specified in the supply interruption notice (unless a further notice was given in respect of that day).

#### *Exemptions specific to EGS4*

3.62. Only sub-paragraphs (3), (6) and (7) of Regulation 20<sup>22</sup> may be invoked by the distributor providing this service:

- (3) The Customer agrees with the relevant operator that the action taken by the relevant operator before the contravention time may be treated as

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<sup>22</sup> The Electricity (Standards of Performance) Regulations 2015.

the taking by the relevant operator of the action required by the regulation and, where the action taken by the relevant operator includes a promise to perform any action (whether before or after the contravention time), the relevant operator duly performs that promise.

- (6) It was not reasonably practicable for the relevant operator to take the action required by the regulation before the contravention time as a result of:
  - Severe Weather conditions
  - industrial action by the employees of the relevant operator
  - the act or default of a person other than an officer, employee or agent of the relevant operator, or of a person acting on behalf of an agent thereof
  - the inability of the relevant operator to obtain any necessary access to any premises (which may include its own premises)
  - the existence of circumstances by reason of which the relevant operator could reasonably expect that if it took the action it would or would be likely to be in breach of an enactment (including any directions given by the Secretary of State under section 96 of the Act(a))
  - the effects of an event for which emergency regulations have been made under Part 2 of the Civil Contingencies Act 2004(b)
  - other circumstances of an exceptional nature beyond the control of the relevant operator, and the relevant operator had in each case taken all such steps as it was reasonable to take both to prevent the circumstances from occurring and to prevent them from having that effect.
- (7) The relevant operator reasonably considers that the information given by the Customer is frivolous or vexatious.

3.63. The interruption was caused by the removal of a temporary supply that had been installed following an interruption of supply to the Customer's premises whilst normal supply was being restored to the premises.

3.64. The distributor has not received a claim for compensation under this guaranteed standard from the Customer, whose premises are directly connected to the distributor's distribution system, within one month from the applicable date.

3.65. Note, however, that Regulation 20(8) may not be invoked. That is, the distributor cannot be exempt from the obligations imposed by EGS4 where it is exercising its rights to disconnect the supply because of damage to electrical plant, interference with meters or for debt. The requirement to give at least two days' notice in such circumstances is also set out in Schedule 6 to the Electricity Act 1989.

3.66. The distributor does not have to comply with the requirements of this guaranteed standard if its action to discontinue the supply is solely associated with work on the distributor's fuse at the premises.

*EGS5 (Regulation 13) Voltage complaints*

3.67. This guaranteed standard applies where a Customer either has reported that they believe that the supply is or has been outside the permitted voltage range or reports an event that might reasonably lead the distributor to believe that a supply is outside the permitted voltage range (but does not at the same time report loss of supply). Thus an EGS5 response must be triggered at the point of initial contact with the Customer if incorrect voltage is stated or should reasonably be suspected to be an issue, and it should remain and be reported as an EGS5 response regardless of whether or not a voltage problem is ultimately confirmed. To this end, the distributor's Customer-contact staff must be equipped with and briefed on a list of relevant criteria against which a reasonable judgment of whether or not the Customer's supply may be outside the permitted voltage range can be made.

3.68. In these circumstances, the distributor must either:

- Where a visit is deemed to be necessary, within 7 Working Days of having received the report referred to above, make an offer to visit the Customer's premises during a specified time (ie part of a Working Day falling wholly before 1.00pm; part of a Working Day falling wholly after 12.00 midday; any two-hour time-band within a Working Day; or such other period as may be requested by the Customer and agreed by the distributor) within that same 7 Working Day period.
- If a visit is deemed not to be necessary, dispatch a written explanation of the probable reason for the problem reported by the Customer within 5 Working Days of receipt of the report.

3.69. If the distributor otherwise fails to offer a visit or dispatch a written explanation within the prescribed periods, a payment of £30 must be made to the Customer (domestic and non-domestic Customers).

3.70. If the distributor fails to attend the Customer's premises at the specified time a payment of £30 must be made to the Customer (domestic and non-domestic Customers).

3.71. It is likely that, from time to time, the same incident of voltage potentially outside the permitted range will be reported by more than one Customer. Each report must be dealt with separately and any action taken will in each case be subject to the guaranteed standards. If the distributor needs to visit the first Customer who has made a report, he may consider that in doing so he will be able to provide an explanation to all the Customers concerned, without visits to them. If this is the case, he must consider the application of Regulation 20(3).<sup>23</sup> In considering the application of Regulation 20(3) the distributor must pay heed to the requirement that the Customer agrees with the relevant operator that the action taken by the distributor before the contravention time may be treated as the taking by the

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<sup>23</sup> The Electricity (Standards of Performance) Regulations 2015.

distributor of the action required by the regulation and, where the action taken includes a promise of further action, the distributor duly performs that promise.

3.72. The distributor must not count investigations that it carries out on its own initiative as services under this guaranteed standard. Only those investigations initiated as a result of a Customer contact must be counted. If the distributor cannot contact a Customer to agree an appointment to investigate, it must write, within the prescribed period, to offer (at least) a morning or afternoon appointment to visit.

#### *Exemptions specific to EGS5*

3.73. If there are exceptional circumstances covered by Regulation 20(6)<sup>24</sup> (see the fourth bullet point of paragraph 3.100) which mean that it is not reasonably practicable for the distributor to keep the appointment, the distributor must inform the Customer at least one Working Day before the appointment, unless it is not reasonably practicable for it to do so (because the circumstances preventing the keeping of the appointment arose at a time when it was not reasonably practicable to give such warning). All other exemptions described in Regulation 20 apply.

#### *EGS8 (Regulation 17) Making and keeping appointments*

3.74. This guaranteed standard applies where the distributor informs the Customer that it wishes to visit the Customer's premises, or where a Customer asks the distributor to visit their premises. In either case it applies so long as the visit in question is for an authorised purpose that requires access to be provided to the Customer's premises or for which it would otherwise be reasonable to expect the Customer to be present, and so long as the visit is not for a purpose that is covered by one of the guaranteed standards set out in the Electricity (Connection Standards of Performance) Regulations 2015.<sup>25</sup>

3.75. Following any rearrangement of the appointment in agreement with the Customer that rearranged date shall be the appointment date for the purposes of reporting.

3.76. The distributor must, within a reasonable period of informing the Customer of its need to visit or of being informed of the Customer's wish for it to visit, as appropriate, offer a timed appointment. The appointment offered must itself be within a reasonable period from the date when the offer is made. It must be:

- during a specified period up to 1.00 pm (the starting time of this period must also be notified to the Customer) on a specified day
- during a specified period after 12 noon (the end-time of this period must also be notified to the Customer) on a specified day, or

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<sup>24</sup> The Electricity (Standards of Performance) Regulations 2015.

<sup>25</sup> The Electricity (Connection Standards of Performance) Regulations 2015.

- during a specified period not exceeding two hours in length on a specified day.

3.77. If a Customer requests an appointment at a particular time on a particular day, the distributor must not unreasonably withhold its agreement to such a request, though it is not obliged to agree to a period of less than two hours' duration. However, if the distributor does agree to an appointment period of less than two hours, that appointment becomes a valid appointment for the purposes of EGS8, and is therefore subject to the penalty set out below if not kept.

3.78. If the distributor either fails, within a reasonable period, to offer an appointment or fails to keep an appointment, a payment of £30 must be made to the Customer (domestic and non-domestic Customers).

3.79. Given the range of a distributor's activities, it is not generally possible to define what is or is not a reasonable period. It will therefore be for the distributor to assess this on a case-by-case basis.

3.80. Any agreed appointment must be kept unless the relevant Customer agrees that the service is no longer required.

3.81. Appointments agreed for days other than normal Working Days must be counted as services and failures must be similarly recorded.

3.82. The notice of rights published by the distributor must specify its usual start time for am appointments and finish time for pm appointments. The guaranteed standard allows the distributor to offer an appointment at an agreed, precise time. If the distributor offers such an appointment it becomes a guaranteed appointment.

3.83. Ofgem considers that an appointment is kept only where:

- An appropriate member of staff to undertake the task in question arrives at the appointed time or within the prescribed period even if the Customer was not present at the appointed time. The member(s) of staff must also have reasonable time to complete the task.
- The member of staff has all equipment that could reasonably be expected to be needed to complete the relevant task and is in all other respects compliant with the requirements of paragraph 9.2 of standard condition 9 (Arrangements for access to premises) of the electricity distribution licence.

#### *Exemptions specific to EGS8*

3.84. The following specific exemptions apply to EGS8:

- If there are exceptional circumstances covered by Regulation 20(6)<sup>26</sup> (see the fourth bullet point of paragraph 3.100) which mean that it is not reasonably practicable for the distributor to keep an appointment. This exemption can only be applied if the distributor informs the Customer at least one Working Day before the appointment, unless the circumstances referred to in that paragraph occur at a time when it is not reasonably practicable for it to do so). All other exemptions described in Regulation 20 apply.
- If the visit is in response to information or requests under EGS1 or EGS5.
- If the visit is in connection with cutting off the Customer's electricity supply under schedule 6 of the Electricity Act 1989.

*EGS9 (Regulation 19) Payments owed under the guaranteed standards*

3.85. EGS9 deals with those situations where, in respect of failures against other guaranteed standards, the distributor has to make payments to its own Customers, where it has to make payments to Customers of another distributor and where it receives payment from another distributor for onward transmission to its Customers.

3.86. In the event that a distributor is obliged to make a payment to one of its Customers under any of the guaranteed standards in this guidance it must make the payment to its Customer or its Customer's supplier within 10 Working Days from the date when the obligation to make the payment arises. Where a payment is due under EGS11A, EGS11B or EGS11C the distributor must make the payment as soon as is reasonably practicable. If a distributor fails to make a payment within the timeframe specified in this paragraph a payment of £30 must be made to the Customer (domestic and non-domestic Customers).

3.87. Where a distributor receives a payment from another distributor for onward payment to one of its Customers, the distributor to whose network the Customer's premises are connected must make the payment to its Customer or its Customer's supplier within 10 Working Days from the date when it received the payment from the other distributor. If a distributor fails to make a payment within the timeframe specified in this paragraph a payment of £30 must be made to the Customer (domestic and non-domestic Customers).

3.88. Where a distributor is obliged to make a payment under any of the following standards, EGS2, EGS2A, EGS2B, EGS4, EGS11A, EGS11B and EGS11C, to a Customer of another distributor, the distributor must make the payment to the other distributor for onward transmission within 10 Working Days from the date when the obligation to make the payment arises (for EGS2, EGS2A, EGS2B and EGS4) and as soon as reasonably practicable (for EGS11A, EGS11B and EGS11C). If a distributor fails to make a payment within the timeframe specified in this paragraph, a payment of £30 must be made to the Customer (domestic and non-domestic Customers).

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<sup>26</sup> The Electricity (Standards of Performance) Regulations 2015

*Exemptions specific to EGS9*

3.89. If there is a genuine dispute between the Customer and the distributor as to whether a payment is due under the guaranteed standards. The general exemptions in paragraph 3.100 apply for this Regulation.

*EGS11A (Regulation 7) Supply restoration: Category 1 Severe Weather conditions<sup>27</sup>*

3.90. In the event of the supply to a Customer's premises during Category 1 Severe Weather conditions being discontinued as a result of a failure of, fault in or damage to the distribution system (but not the distributor's fuse), the distributor must restore supply to the Customer's premises within 24 hours of the time from which it was (or should reasonably have been) aware of the fault. If it fails to achieve this, it must, when aware, pay £70 to the Customer (domestic and non-domestic Customers) and a further £70 for each additional period of 12 hours in which supply is not restored, up to a cap of £700 in total.

3.91. For the Guaranteed Standards of Performance reporting pack, when reporting the number of supply interruptions and the number of premises affected for Regulations 5,6, 7 and 8 (normal weather, 5,000+ incidents, rota disconnections and severe weather), reportable QOS incidents should be reported, ie incidents lasting over 3 minutes.

*Exemptions specific to EGS11A*

3.92. The following specific exemptions apply to EGS11A:

- Exemptions listed under paragraph 3.34 of this guidance.

3.93. A Customer making a claim for a supply interruption during Category 1 Severe Weather conditions cannot also make a claim if supply is interrupted as a result of a failure of, fault in or damage to the relevant electricity distributor's system resulting from normal weather conditions or category 2 or 3 Severe Weather conditions.

*EGS11B (Regulation 7) Supply restoration: Category 2 Severe Weather conditions<sup>28</sup>*

3.94. In the event of the supply to a Customer's premises during Category 2 Severe Weather conditions being discontinued as a result of a failure of, fault in or damage to the distribution system (but not the distributor's fuse), the distributor must restore supply to the Customer's premises within 48 hours of the time from which it was (or should reasonably have been) aware of the fault. If it fails to achieve this, it must, when aware, pay £70 to the Customer (domestic and non-domestic

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<sup>27</sup> See Appendix 3 for the Exceptional Severe Weather event thresholds.

<sup>28</sup> See Appendix 3 for the Exceptional Severe Weather event thresholds.

Customers) and a further £70 for each additional period of 12 hours in which supply is not restored, up to a cap of £700 in total.

*Exemptions specific to EGS11B*

3.95. The following specific exemptions apply to EGS11B:

- Exemptions listed under paragraph 3.34 of this guidance.

3.96. A Customer making a claim for a supply interruption during Category 2 Severe Weather conditions cannot also make a claim if supply is interrupted as a result of a failure of, fault in or damage to the relevant electricity distributor's system resulting from normal weather conditions or category 1 or 3 Severe Weather conditions.

*EGS11C (Regulation 7) Supply restoration: Category 3 Severe Weather conditions<sup>29</sup>*

3.97. In the event of the supply to a Customer's premises during Category 3 Severe Weather conditions being discontinued as a result of a failure of, fault in or damage to the distribution system (but not the distributor's fuse), the distributor must restore supply to the Customer within X hours of the time from which it was (or should reasonably have been) aware of the fault, where X is derived from the formula below. If it fails to achieve this, it must, when aware, pay £70 (domestic and non-domestic Customers) and a further £70 for each additional period of 12 hours in which supply is not restored, up to a cap of £700 in total.

$$X = 48 \times \left( \frac{\text{total number of Customers interrupted}}{\text{category 3 threshold number of Customers}} \right)^2$$

3.98. For the Guaranteed Standards of Performance reporting pack, when reporting the number of supply interruptions and the number of premises affected for Regulations 5,6, 7 and 8 (normal weather, 5,000+ incidents, rota disconnections and severe weather), reportable QOS incidents should be reported i.e. incidents lasting over 3 minutes.

*Exemptions specific to EGS11C*

3.99. The following specific exemptions apply to EGS11C:

- Where any designated electricity distributor experiences Category 3 Severe Weather conditions in which the total number of Customers interrupted is equal to or greater than the upper threshold number of Customers due to the same weather event.

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<sup>29</sup> See Appendix 3 for the Exceptional Severe Weather event thresholds.

- Exemptions listed under paragraph 3.34 of this guidance.

3.100. A Customer making a claim for a supply interruption during Category 3 Severe Weather conditions cannot also make a claim if supply is interrupted as a result of a failure of, fault in or damage to the relevant electricity distributor's system resulting from normal weather conditions or category 1 or 2 Severe Weather conditions.

### **General exemptions from the guaranteed standards**

3.101. Certain general exemptions (set out in Regulation 20<sup>30</sup>) apply to all of the guaranteed standards, with the exceptions of EGS2, EGS2A, EGS2B, EGS2C, EGS11A, EGS11B and EGS11C. Note, however, that the general exemptions are modified by particular provisions attaching to EGS4 and EGS5, and detailed in earlier paragraphs. They must not therefore be read in isolation from the specific regulation that is being considered. The general exemptions are as follows:

- If the Customer informs the distributor before the guaranteed standard contravention time that he does not want the distributor to take any action or any further action in relation to the matter.
- If the Customer agrees that action already taken by the distributor before the contravention time can be treated as meeting the requirement of the guaranteed standard (but only if the distributor has made the Customer aware that, in so agreeing, he could be waiving his right to a guaranteed standards payment). Additionally, where the distributor has promised to take further action, that action must be taken without undue delay in order for this exemption to be successfully invoked.
- If, in order to meet the guaranteed standard, information is required to be given by the Customer to the distributor and the Customer either sends the information to an address or telephones a number other than the one that the distributor has indicated, or (in the case of investigating voltage complaints) telephones with the information at a time outside reasonable hours as notified by the distributor.
- It was not reasonably practicable for the distributor to have complied with the requirements because of:
  - Severe Weather
  - industrial action by the distributor's employees
  - an action or default by someone other than the distributor's employee, agent or officer or a person acting on behalf of the agent
  - an inability to gain necessary access to relevant premises
  - the likelihood that the distributor would break the law if it complied
  - the effects of an event for which emergency regulations have been made under Part 2 of the Civil Contingencies Act 2004, or
  - other exceptional circumstances beyond the control of the distributor,

and the distributor had in each case taken all reasonable steps both to prevent the circumstances from occurring and from having that effect.

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<sup>30</sup> Regulation 20 of The Electricity (Standards of Performance) Regulations 2015.

- It was reasonable for the distributor to regard information from the Customer as being frivolous (not deserving to be taken seriously) or vexatious (intended purely to cause nuisance to the distributor), or
- The Customer had either committed an offence under the Electricity Act 1989<sup>31</sup> or had failed to pay charges due after receiving a disconnection notice.<sup>32</sup>

### **Application of the general exemptions**

3.102. Regulation 20(3)<sup>33</sup> provides for exemption from guaranteed standards where the Customer agrees with the relevant operator that the action taken by the relevant operator before the contravention time shall be treated as the taking by the relevant operator of the action required by the regulation and, where the action taken by the relevant operator includes a promise to perform any action (whether before or after the contravention time), the relevant operator duly performs that promise.

3.103. When invoking this exemption, the distributor must ensure that the Customer is fully aware that, in agreeing, he could be waiving his right to payment under the relevant guaranteed standard. The distributor must also impose on itself a strict definition of duly performs. It must consider that it has failed the guaranteed standard unless it fulfils any promise associated with meeting the guaranteed standard requirement within a specific time from giving its promise to the Customer. Unless otherwise agreed with Ofgem, the time for carrying out any such promised actions must be the prescribed period under the particular guaranteed standard.

3.104. In order for the exemptions in Regulation 20(6)(a)-(g) (see the fourth bullet point of paragraph 3.100) to apply, the relevant circumstances must be both exceptional and beyond the distributor's control. It must also take all such steps as it was reasonable to take, both to prevent the circumstances from occurring and to prevent them from causing a failure against the guaranteed standard.

3.105. It is also important to recognise that, if an exemption is to be invoked, the distributor must be able to demonstrate that the circumstances giving rise to the exemption applied in each relevant case. Whilst it may have been prevented from delivering a service in the generality of cases (for example, because of Severe Weather), the distributor must still be prepared to do so in any particular case where the circumstances do not prevent it.

3.106. If a distributor wishes to invoke an exemption under Regulation 20(6), therefore, it must be willing to explain the precise nature of the exceptional circumstances to any Customer who is affected, and how they applied to that Customer's case. It is also not sufficient to refer to general exclusions such as impracticable or uneconomical.

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<sup>31</sup> Specifically, an offence under paragraph 6 of schedule 6 or under paragraph 11 of schedule 7 to the Electricity Act 1989.

<sup>32</sup> Disconnection notice under sub-paragraph 2(2) of schedule 6 to the Electricity Act 1989.

<sup>33</sup> Regulation 20 of The Electricity (Standards of Performance) Regulations 2015.

3.107. Where the distributor claims an exemption from the requirements of the guaranteed standards they will need to report the number and type of exemptions claimed in the Guaranteed Standards of Performance Reporting Pack.

### **Arrangements for payment and communication**

3.108. In the event of a guaranteed standard service failure, the distributor must make the guaranteed standard payment either directly to its Customer, or to the distributor to whose network the Customer's premises are connected or the Customer's supplier for onward transmission to the Customer.

3.109. The date on which the distributor sends payment to a Customer or to another distributor or the supplier (and notifies the other distributor or supplier of the payment) will determine whether the response-time requirement had been met for the purposes of EGS9.<sup>34</sup>

3.110. The reporting of performance under the guaranteed standards must reflect the different Customer categories covered by the guaranteed standards. Accordingly, the guaranteed standards reporting form provides where appropriate for separate reporting of distribution services provided by the distributors to domestic and non-domestic Customers. In many cases, consumers will not communicate with the distributor regarding the services that are covered by the guaranteed standards. In such cases, the supplier may contact the distributor on behalf of the Customer. Regulation 3 (2)(d)<sup>35</sup> provides that any person having apparent authority to represent the Customer must be treated as if he or she were the Customer for the purposes of the guaranteed standards. This must be taken to cover suppliers and other distributors acting on behalf of their Customers.

3.111. In deciding when an obligation under the guaranteed standards towards a Customer is triggered (the commencement date under the guaranteed standards), the principle is that in general it is only when the supplier or other distributor has given the distributor all of the information that would normally be required for it to perform a service under the guaranteed standards.

3.112. Suppliers are able to act for their Customers not only in requesting services covered by the guaranteed standards but also in receiving services. For example, if an explanation in response to a voltage complaint (EGS5) made by a Customer is sent by the distributor to the supplier to be relayed to the Customer, the date when the distributor's response is sent to the supplier would determine whether the response-deadline had been met.

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<sup>34</sup> (Regulation 19) Payments owed under the guaranteed standards

<sup>35</sup> The Electricity (Standards of Performance) Regulations 2015

## Notice of rights etc

3.113. Regulation 22<sup>36</sup> requires distributors from time to time to prepare a revised statement explaining the rights prescribed for the benefit of Customers under the guaranteed standards. The Regulation requires electricity distributors to:

- Provide copies of the statement, and revisions to it, to both Ofgem and the National Association of Citizens Advice Bureaux and the Scottish Association of Citizens Advice Bureaux before it is sent to electricity suppliers to issue to Customers.
- Send a copy at least once every 12 months to each electricity supplier that supplies electricity to Customers connected to the relevant distributor's network.
- Make available a copy of each statement in the current form available on its website and for inspection by anyone at any of the distributor's offices.
- Send a copy of the statement in its current form to anyone who requests it.

3.114. It is the responsibility of distributors to ensure that the notice of rights is issued to the suppliers so that the information contained in the notice of rights can be relayed to Customers. Under Regulation 24 the notice of rights must explain the guaranteed standards and any exemptions that apply. Distributors should advise Customers that performance against these guaranteed standards, including the levels of compensation that have been paid, is published by the National Association of Citizens Advice Bureaux and the Scottish Association of Citizens Advice Bureaux and to provide the relevant contact details.

3.115. Distributors must take care to inform Customers of those situations in which automatic payment will be made for failures against guaranteed standards, and the procedures that Customers need to follow in those cases where a claim is necessary.

3.116. It is the responsibility of suppliers to ensure that their Customers are fully informed of the electricity distribution guaranteed standards of performance. When forwarding information on to consumers on behalf of the relevant distributor, a supplier is not compelled to issue copies of the distributor's document – the requirement is that they must issue the information on how the guaranteed standards work and apply. The format of these statements is a matter for suppliers to consider.

3.117. Distributors may provide separate statements for domestic and non-domestic Customers if they consider this to be appropriate.

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<sup>36</sup> The Electricity (Standards of Performance) Regulations 2015

## Payment Terms Reporting

3.118. The reporting of payments under CRC 2D (Adjustment of licensee's revenues to reflect interruptions related quality of service performance) of the electricity distribution licence, has been incorporated into the Guaranteed Standards of Performance Reporting Pack. The following terms are included:

- SWPD - The total Severe Weather payments due,
- SWPM - The total Severe Weather payments made,
- NCPD - The total normal weather payments due,
- NCPM - The total normal weather payments made.

## Codes of Practice Reporting

3.119. The following activities<sup>37</sup> must be reported by DNOs and IDNOs in the Guaranteed Standards of Performance Reporting Pack:

- Standard condition 11.2(b) and 11.3(c)
  - Number of domestic Customers registered for special services on the PSR under paragraph 10.2 of standard condition 10.
- Standard condition 11.2(b) and 11.3(b)
  - Number of PSR Customers provided with additional help during supply interruptions under paragraphs 10.4(b) and 10.4(c) of standard condition 10.
- Standard condition 11.2(a) and 11.3(a)
  - Number of domestic Customers registered for password schemes at the end of the reporting period under paragraph 10.7 of standard condition 10.
- Standard condition 11.3(e)<sup>38</sup>
  - The value of payments made (including all ex-gratia payments) to PSR customers at the end of the reporting period.

## Customers registered for special services

3.120. Distributors are required to report the number of domestic Customers who are registered on its PSR under paragraph 10.2 of standard condition 10 at the end of each annual reporting period.

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<sup>37</sup> Standard condition 11 (Reporting on performance) of the electricity distribution licence requires a DNO to report on its general operation of the arrangements specified in standard conditions 9 (Arrangements for access to premises) and 10 (Special services).

<sup>38</sup> The reporting requirement relates only to payments made under the Regulations.

### **Provision of additional help**

3.121. In the event of supply interruptions, distributors are obliged to provide Customers who are of pensionable age, disabled, or chronically sick and who are registered under paragraph 10.2 of standard condition 10 with additional advice or information under paragraphs 10.4(b) and (c) of standard condition 10. The nature of the help and advice must be described in the statement required under paragraph 10.10(a) of standard condition 10.

3.122. Individual distributors have developed their own approaches to compliance with paragraph 10.4 of standard condition 10 and Customers will receive varying advice and information.

3.123. Distributors are therefore required to make a return showing the number of Customers and occasions on which help has been given rather than to specify the type of assistance involved.

### **Use of password schemes**

3.124. Paragraph 10.7 of standard condition 10 requires that, if a domestic Customer who is of pensionable age, disabled or chronically sick asks it to do so, a distributor must, free of charge, agree a password with that Customer that can be used by any representative of the distributor to enable the Customer to identify that person. Paragraph 9.2(c) of standard condition 9 requires a distributor to use any password that has been agreed with the Customer in accordance with paragraph 10.7 of standard condition 10.

3.125. This does not, however, imply that distributors must keep a register or any other permanent record of passwords.

3.126. Paragraph 10.7 of standard condition 10 and paragraph 9.2(c) of standard condition 9 merely require that distributors must offer to use passwords in appropriate cases. Companies are therefore required to report upon the number of occasions upon which they or their advisors have made arrangements with individual Customers to use passwords.

### **Systems for public service requirements reporting**

3.127. Distributors must establish and maintain systems for the collation and reporting of public service requirements data using the same principles as those used for guaranteed standards of performance data.

## Appendix 1 – Quality of service

### Purpose of information

1.1. Table A1.1 outlines the purpose for which the information provided, and described in detail in Chapter 2 of this document, will be used. It does not specify how this information will be used in the incentive scheme.

**Table A1.1: Purpose for collecting specified information**

Information relating to number of Customers interrupted and duration of interruptions	Purpose	
	Incentive scheme	Other
Number of Customers interrupted by short interruptions of less than three minutes, including disaggregated by cause		Yes
Number of Customers interrupted for three minutes or more	Yes	
Duration of interruptions to supply of three minutes or more	Yes	
Number of Customers interrupted and duration of interruptions to supply of three minutes or more disaggregated by: incident and Restoration Stage source, voltage level and MEI duration band frequency of interruption, and HV circuit.	Yes Yes	Yes Yes Yes
Aggregate number of Customers re-interrupted		Yes

### Formulae for the purposes of reporting

1.2. This appendix sets out formulaic expressions for:

- the number of Customers interrupted in the relevant year  $t$  (excluding re-interruptions)
- the duration of interruptions to supply in the relevant year  $t$ .

#### Formulae Definitions

- $CIt$  = the number of Customers interrupted in the relevant year  $t$ , **excluding re-interruptions.**
- $CMLt$  = the duration of interruptions to supply in the relevant year  $t$ , **including re-interruptions.**
- $i$  = an unplanned incident on the distribution system.
- $j$  = a pre-arranged incident on the distribution system.
- $k$  = an incident on a transmission system such as the systems of NGET or transmission companies in Scotland.
- $l$  = an incident on a distributed generator's system.
- $m$  = an incident on any other connected system.
- $r$  = a Restoration Stage in any incident  $i, j, k, l, m$ .

- $t$  = relevant year (that financial year for the purposes of which any calculation falls to be made).
- $TC_t$  = total connected Customers in the relevant year  $t$ .
- $TR_{rit}$  = the restoration time of Restoration Stage  $r$  of an unplanned incident  $i$  in the relevant year  $t$ .
- $TR_{rjt}$  = the restoration time of Restoration Stage  $r$  of a pre-arranged incident  $j$  in the relevant year  $t$ .
- $TR_{rkt}$  = the restoration time of Restoration Stage  $r$  of an incident  $k$  on NGET's system or a transmission company's system in Scotland in the relevant year  $t$ .
- $TR_{rlt}$  = the restoration time of Restoration Stage  $r$  of an incident  $l$  on a distributed generator's system in the relevant year  $t$ .
- $TR_{rmt}$  = the restoration time of Restoration Stage  $r$  of an incident  $m$  on any other connected system in the relevant year  $t$ .
- $TI_{rit}$  = the interruption time prior to the restoration time of Restoration Stage  $r$  of an unplanned incident  $i$  in the relevant year  $t$ .
- $TI_{rjt}$  = the interruption time prior to the restoration time of Restoration Stage  $r$  of a pre-arranged incident  $j$  in the relevant year  $t$ .
- $TI_{rkt}$  = the interruption time prior to the restoration time of Restoration Stage  $r$  of an incident  $k$  on NGET's system or a transmission company's system in Scotland in the relevant year  $t$ .
- $TI_{rlt}$  = the interruption time prior to the restoration time of Restoration Stage  $r$  of an incident  $l$  on a distributed generator's system in the relevant year  $t$ .
- $TI_{rmt}$  = the interruption time prior to the restoration time of Restoration Stage  $r$  of an incident  $m$  on any other connected system in the relevant year  $t$ .

and:

- $ND_{rit}$  = Number of Customers interrupted in Restoration Stage  $r$  of an unplanned incident  $i$  in the relevant year  $t$ , excluding re-interruptions to supply.
- $ND_{rjt}$  = Number of Customers interrupted in Restoration Stage  $r$  of a pre-arranged incident  $j$  in the relevant year  $t$ , excluding re-interruptions to supply.
- $ND_{rkt}$  = Number of Customers interrupted in Restoration Stage  $r$  of an incident  $k$  on NGET's system or a transmission company's system in Scotland in the relevant year  $t$ , excluding re-interruptions to supply.
- $ND_{rlt}$  = Number of Customers interrupted in Restoration Stage  $r$  of an incident  $l$  on a distributed generator's system in the relevant year  $t$ , excluding re-interruptions to supply.
- $ND_{rmt}$  = Number of Customers interrupted in Restoration Stage  $r$  of an incident  $m$  on any other connected system in the relevant year  $t$ , excluding re-interruptions to supply.
- $NN_{rit}$  = Number of Customers interrupted in each Restoration Stage  $r$  of an unplanned incident  $i$  in the relevant year  $t$ , including re-interruptions to supply.
- $NN_{rjt}$  = Number of Customers interrupted in Restoration Stage  $r$  of a pre-arranged incident  $j$  in the relevant year  $t$ , including re-interruptions to supply.

- $NNrkt$  = Number of Customers interrupted in Restoration Stage  $r$  of an incident  $k$  on NGET's system or a transmission company's system in Scotland in the relevant year  $t$ , including re-interruptions to supply.
- $NNrlt$  = Number of Customers interrupted in each Restoration Stage  $r$  of an incident  $l$  on a distributed generator's system in the relevant year  $t$ , including re-interruptions to supply.
- $NNrmt$  = Number of Customers interrupted in Restoration Stage  $r$  of an incident  $m$  on any other connected system in the relevant year  $t$ , including re-interruptions to supply.

### Formulae

1.3.  $CI_t$  is the number of Customers interrupted per year in the relevant year  $t$  and is derived from the following formula:

$$CI_t = CIA_t + CIB_t + CIC_t + CID_t + CIE_t$$

Where:

- $CIA_t$  is the number of Customers interrupted per year arising from unplanned incidents on the distribution system in the relevant year  $t$  and is derived from the following formula:

$$CIA_t = \frac{(\sum_i \sum_r ND_{rit}) \times 100}{TC_t}$$

- $CIB_t$  is the number of Customers interrupted per year arising from pre-arranged incidents on the distribution system in the relevant year  $t$  and is derived from the following formula:

$$CIB_t = \frac{(\sum_j \sum_r ND_{rjt}) \times 100}{TC_t}$$

- $CIC_t$  is the number of Customers interrupted per year arising from incidents on the systems of NGET or transmission companies in Scotland in the relevant year  $t$  and is derived from the following formula:

$$CIC_t = \frac{(\sum_k \sum_r ND_{rkt}) \times 100}{TC_t}$$

- $CID_t$  is the number of Customers interrupted per year arising from incidents on the systems of distributed generators in the relevant year  $t$  and is derived from the following formula:

$$CID_t = \frac{(\sum_l \sum_r ND_{rlt}) \times 100}{TC_t}$$

- $CIE_t$  is the number of Customers interrupted per year arising from incidents on any other connected systems in the relevant year  $t$  and is derived from the following formula:

$$CIE_t = \frac{(\sum_m \sum_r ND_{rmt}) \times 100}{TC_t}$$

1.4. Each of the terms CIAt, CIBt, CICT, CIDt and CIET should be separately identified.

1.5. CMLt is the duration of interruptions to supply in the relevant year t and is derived from the following formula:

$$CML_t = CMLA_t + CMLB_t + CMLC_t + CMLD_t + CMLE_t$$

- CMLAt is the duration of interruptions from unplanned incidents on the distribution system in the relevant year t and is derived from the following formula:

$$CMLA_t = \frac{\sum_i \sum_r (NN_{rit} * (TR_{rit} - TI_{rit}))}{TC_t}$$

- CMLBt is the duration of interruptions from pre-arranged incidents on the distribution system in the relevant year t and is derived from the following formula:

$$CMLB_t = \frac{\sum_j \sum_r (NN_{rjt} * (TR_{rjt} - TI_{rjt}))}{TC_t}$$

- CMLCt is the duration of interruptions arising from incidents on the systems of NGET or transmission companies in Scotland in the relevant year t and is derived from the following formula:

$$CMLC_t = \frac{\sum_k \sum_r (NN_{rkt} * (TR_{rkt} - TI_{rkt}))}{TC_t}$$

- CMLDt is the duration of interruptions arising from incidents on the systems of distributed generators in the relevant year t and is derived from the following formula:

$$CMLD_t = \frac{\sum_l \sum_r (NN_{rlt} * (TR_{rlt} - TI_{rlt}))}{TC_t}$$

- CMLEt is the duration of interruptions arising from incidents on any other connected systems in the relevant year t and is derived from the following formula:

$$CMLE_t = \frac{\sum_m \sum_r (NN_{rmt} * (TR_{rmt} - TI_{rmt}))}{TC_t}$$

1.6. Each of the terms CMLAt, CMLBt, CMLCt, CMLDt and CMLEt should be separately identified.

## Other formulae

1.7. This section sets out formulaic expressions for:

- the number of Customers interrupted by short interruptions in the relevant year t (excluding re-interruptions), and
- the number of Customers re-interrupted in the relevant year t.

### Formulae Definitions

- RIt = the number of Customers re-interrupted in the relevant year t.
- n = a short interruption due to the automatic operation of distribution network switchgear where the supplies of some or all of the Customers involved are successfully restored by automatic switching within less than three minutes of the first interruption.
- o = a short interruption due to the automatic operation of distribution network switchgear where the supplies of some or all of the Customers involved are successfully restored by manual or remote control switching within less than three minutes of the first interruption.
- p = a short interruption due to the manual or remote operation of distribution network switchgear for reasons such as deliberate disconnection for operational or emergency reasons.
- q = a short interruption due to the operation of switchgear on the networks of NGET/transmission companies (in Scotland) or other connected systems and distributed generators.
- SIt = the number of short interruptions to supply in the relevant year t.
- NSnt = the number of Customers interrupted by a short interruption in category n in the relevant year t.
- NSot = the number of Customers interrupted by a short interruption in category o in the relevant year t.
- NSpt = the number of Customers interrupted by a short interruption in category p in the relevant year t.
- NSqt = the number of Customers interrupted by a short interruption in category q in the relevant year t.

### Formulae

1.8. SIt is the number of Customers interrupted by short interruptions in the relevant year t and is derived from the following formula:

$$SI_t = SIA_t + SIB_t + SIC_t + SID_t$$

Where:

- SIA<sub>t</sub> is the number of Customers interrupted by short interruptions in the relevant year t due to the automatic operation of distribution network switchgear where the supplies of some or all of the Customers involved are successfully restored by automatic switching within less than three minutes of the first interruption and is derived from the following formula:

$$SIA_t = \frac{\left( \sum_n NS_{nt} \right) * 100}{TC_t}$$

- SIB<sub>t</sub> is the number of Customers interrupted by short interruptions in the relevant year t due to the automatic operation of distribution network switchgear where the supplies of some or all of the Customers involved are successfully restored by manual or remote control switching within less than three minutes of the first interruption and is derived from the following formula:

$$SIB_t = \frac{\left( \sum_o NS_{ot} \right) * 100}{TC_t}$$

- SICT<sub>t</sub> is the number of Customers interrupted by short interruptions in the relevant year t due to the manual or remote operation of distribution network switchgear for reasons such as deliberate disconnection for operational or emergency reasons and is derived from the following formula:

$$SIC_t = \frac{\left( \sum_p NS_{pt} \right) * 100}{TC_t}$$

- SID<sub>t</sub> is the number of Customers interrupted by short interruptions in the relevant year t due to the operation of switchgear on the networks of NGET/transmission companies (in Scotland) or other connected systems and distributed generators and is derived from the following formula:

$$SID_t = \frac{\left( \sum_q NS_{qt} \right) * 100}{TC_t}$$

1.9. Each of the terms SIA<sub>t</sub>, SIB<sub>t</sub>, SIC<sub>t</sub> and SID<sub>t</sub> should be separately identified.

1.10. RI<sub>t</sub> is the number of Customers re-interrupted in the relevant year t and is derived from the following formula:

$$RI_t = RIA_t + RIB_t + RIC_t + RID_t + RIE_t$$

where:

- RIA<sub>t</sub> is the number of Customers re-interrupted in the relevant year t arising from unplanned incidents on the distribution system and is derived from the following formula:

$$RIA_t = \frac{\left( \sum_i \sum_r (NN_{rit} - ND_{rit}) \right) * 100}{TC_t}$$

- RIB<sub>t</sub> is the number of Customers re-interrupted in the relevant year t arising from pre-arranged incidents on the distribution system and is derived from the following formula:

$$RIB_t = \frac{\left( \sum_j \sum_r (NN_{rjt} - ND_{rjt}) \right) * 100}{TC_t}$$

- RIC<sub>t</sub> is the number of Customers re-interrupted in the relevant year t arising from incidents on the systems of NGET or transmission companies in Scotland and is derived from the following formula:

$$RIC_t = \frac{\left( \sum_k \sum_r (NN_{rkt} - ND_{rkt}) \right) * 100}{TC_t}$$

- RID<sub>t</sub> is the number of Customers re-interrupted in the relevant year t arising from incidents on the systems of distributed generators and is derived from the following formula:

$$RID_t = \frac{\left( \sum_l \sum_r (NN_{rlt} - ND_{rlt}) \right) * 100}{TC_t}$$

- RIE<sub>t</sub> is the number of Customers re-interrupted in the relevant year t arising from incidents on any other connected systems and is derived from the following formula:

$$RIE_t = \frac{\left( \sum_m \sum_r (NN_{rmt} - ND_{rmt}) \right) * 100}{TC_t}$$

## Auditing and estimating the accuracy of interruptions reporting

### Audit preparation

1.11. At the end of the reporting year each DNO must submit information on CI and CML at each voltage by incident and Restoration Stage.

1.12. If Ofgem chose to audit, we will select a sample of 150 incidents, split between 132kV and EHV, HV and LV according to the respective contribution to CI and CML (with a minimum of 50 LV incidents). A proportion of the sample will be held back until the time of the audit, and where a DNO agrees, the entire sample will be held back.

## Audits

1.13. The audits of interruption reporting accuracy for the purposes of the scheme will then involve the following steps:

### *Stage 1 – Calculation of MPAN accuracy<sup>39</sup>*

1.14. The HV MPAN accuracy will be calculated using the following formula:

$$\left( \frac{\text{Total number of primary traded MPANs assigned to true feeders at HV}}{\text{Total number of primary traded MPANs}} \right) \times 100$$

1.15. The LV MPAN accuracy will be calculated using the following formula:

$$\left( \frac{\text{Total number of primary traded MPANs assigned to true feeders at LV}}{\text{Total number of primary traded MPANs}} \right) \times 100$$

1.16. The 132kV and EHV MPAN accuracy will be calculated using the following formula:

$$\left( \frac{\text{Total number of primary traded MPANs assigned to true feeders at 132kV and EHV}}{\text{Total number of primary traded 132kV and EHV MPANs}} \right) \times 100$$

### *Stage 2*

1.17. Ofgem’s auditors will seek to audit at least five 132kV and EHV (where possible) 45 HV (50 if there are not enough 132kV and EHV incidents) incidents and 30 LV incidents<sup>40</sup>.

<sup>39</sup> True feeders are feeders which can generate CI and CML.

<sup>40</sup> Where incidents that are too difficult to audit are substituted by a relevant spare incident.

1.18. The auditors will then calculate the mean, standard deviation and mean plus/minus 4 standard deviations of the errors in the reported Restoration Stage figures.

1.19. The auditors will exclude any incidents containing outlier Restoration Stages (ie where the errors of any stage are outside the mean plus/minus 4 standard deviations).

1.20. The auditors will then calculate the accuracy of incident reporting for CI and CML for the 132kV and EHV, HV and LV data sets using the following formula:

$$\frac{\text{Sum of reported CI/CML for remaining restoration stages}}{\text{Sum of audited CI/CML for remaining restoration stages}}$$

1.21. The auditors will calculate the combined MPAN and incident reporting accuracies (for each of the three voltage categories) using the following formula:

$$[\text{MPAN accuracy} * \text{accuracy of incident reporting}] * 100$$

1.22. This is expressed as a percentage less than 100 using the following formula:

$$100 - \text{modulus } [100 - \text{combined accuracy}]$$

1.23. If the 132kV and EHV accuracy results are greater than or equal to 99 per cent, the DNO will be deemed to have met the accuracy levels set out in the rigs. If not, the remaining 132kV and EHV sample will be audited at Stage 3.

1.24. If the HV accuracy results are greater than or equal to 97 per cent, the DNO will be deemed to have met the accuracy levels set out in the RIGs. If not, the remaining HV sample will be audited at Stage 3.

1.25. If the LV accuracy results are greater than or equal to 93 per cent, then the DNO will be deemed to have met the accuracy levels set out in the RIGs. If not, the remaining LV sample will be audited at Stage 3.

### *Stage 3*

1.26. If appropriate, the auditors will audit the remaining incidents in the 132kV and EHV, HV and LV samples and recalculate the incident reporting accuracies and combined accuracies using the same method as set out in Stage 2.

1.27. If the DNO fails to meet the 97 per cent minimum 132kV and EHV level of accuracy required for the reporting of the number of Customers interrupted and

duration of interruptions set out in Table 3.1 in Chapter 3, Ofgem will make the appropriate adjustments<sup>41</sup> to performance.

1.28. If the DNO fails to meet the 95 per cent minimum HV level of accuracy required for the reporting of the number of Customers interrupted and duration of interruptions set out in Table 3.1 in Chapter 3, Ofgem will make the appropriate adjustments<sup>42</sup> to performance.

1.29. If the DNO fails to meet the 90 per cent minimum LV level of accuracy required for the reporting of the number of Customers interrupted and duration of interruptions set out in Table 3.1 in Chapter 3, Ofgem will make the appropriate adjustments<sup>43</sup> to performance.

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<sup>41</sup> Where data is found to fail the 97 per cent minimum 132kV and EHV level of accuracy, the data will be made 100 per cent accurate.

<sup>42</sup> Where data is found to fail the 95 per cent minimum HV level of accuracy, the data will be made 100 per cent accurate.

<sup>43</sup> Where data is found to fail the 90 per cent minimum LV level of accuracy, the data will be made 100 per cent accurate.

## Appendix 2 – Unplanned QoS targets

**Table A2.1 Unplanned CI Targets for ED1**

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
ENWL	46.0	45.8	45.5	45.3	45.1	44.9	44.6	44.4
NPGN	59.8	58.9	58.6	58.3	58.0	57.7	57.4	57.1
NPGY	66.7	65.7	64.7	63.7	62.7	61.8	60.9	60.0
WMID	86.7	85.0	83.3	81.7	80.0	78.3	76.7	75.1
EMID	51.9	51.1	50.4	50.1	49.9	49.6	49.4	49.1
SWALES	50.1	49.9	49.6	49.4	49.1	48.9	48.6	48.4
SWEST	55.7	55.4	55.1	54.8	54.6	54.3	54.0	53.7
LPN	27.0	26.9	26.7	26.6	26.5	26.3	26.2	26.1
SPN	63.4	63.0	62.7	62.4	62.1	61.8	61.5	61.2
EPN	67.1	66.1	65.7	65.4	65.1	64.8	64.4	64.1
SPD	50.4	50.1	49.9	49.6	49.4	49.1	48.9	48.6
SPMW	35.2	35.1	34.9	34.7	34.5	34.4	34.2	34.0
SSEH	66.9	66.6	66.2	65.9	65.3	64.1	63.8	63.5
SSES	60.3	59.4	58.6	57.7	57.4	57.1	56.8	56.5

**Table A2.2 Unplanned CML Targets for ED1**

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
ENWL	40.6	39.8	39.1	38.3	37.6	36.9	36.2	35.5
NPGN	54.8	53.7	52.7	51.7	50.7	49.7	48.8	47.9
NPGY	57.5	56.3	55.2	54.1	53.0	52.0	50.9	49.9
WMID	51.1	50.3	49.5	48.7	47.9	47.1	46.4	45.6
EMID	37.8	37.6	37.3	36.5	35.7	34.9	34.2	33.5
SWALES	27.5	27.5	27.4	27.4	27.3	27.3	27.2	27.1
SWEST	35.8	35.6	35.4	35.2	35.0	34.8	34.6	34.4
LPN	38.8	38.1	37.5	36.8	36.2	35.6	35.0	34.4
SPN	45.5	44.5	43.5	42.6	41.6	40.7	39.8	39.0
EPN	48.0	47.0	45.9	44.9	43.9	43.0	42.1	41.2
SPD	42.2	41.3	40.5	39.7	38.9	38.1	37.4	36.7
SPMW	35.1	34.3	33.5	32.8	32.1	31.3	30.6	30.0
SSEH	53.9	52.8	51.6	50.5	49.2	47.7	46.6	45.6
SSES	48.1	47.1	46.2	45.3	44.4	43.5	42.6	41.8

## Appendix 3 – Exceptional Severe Weather Event thresholds

<b>Designated electricity distributor</b>	<b>Category 1 Eight times the mean daily faults at distribution higher voltage</b>	<b>Category 2 13 times the mean daily faults at distribution higher voltage</b>	<b>Category 3 threshold number of Customers</b>	<b>Upper threshold number of Customers</b>
Electricity North West Limited	55	90	258,000	442,000
Northern Powergrid (Northeast) Limited	37	60	219,000	375,000
Northern Powergrid (Yorkshire) plc	40	65	431,000	739,000
Western Power Distribution (Midlands West) plc	63	103	353,000	605,000
Western Power Distribution (Midlands East) plc	64	104	452,000	775,000
Western Power Distribution (South Wales) plc	41	67	213,000	366,000
Western Power Distribution (South West) plc	60	98	283,000	486,000
London Power Networks plc	14	23	321,000	550,000
South Eastern Power Networks plc	54	88	297,000	509,000
Eastern Power Networks plc	91	148	559,000	959,000
SP Distribution plc	76	124	230,000	394,000
SP Manweb plc	68	111	175,000	301,000
Scottish Hydro Electric Power Distribution plc	60	97	133,000	228,000
Southern Electric Power Distribution plc	67	109	402,000	689,000

### Other Exceptional Event thresholds

Designated electricity distributor	CI threshold	CML threshold
Electricity North West Limited	1.06	0.84
Northern Powergrid (Northeast) Limited	1.58	1.26
Northern Powergrid (Yorkshire) plc	1.10	0.88
Western Power Distribution (Midlands West) plc	1.01	0.81
Western Power Distribution (Midlands East) plc	0.95	0.76
Western Power Distribution (South Wales) plc	2.26	1.80
Western Power Distribution (South West) plc	1.60	1.28
London Power Networks plc	1.10	0.88
South Eastern Power Networks plc	1.11	0.89
Eastern Power Networks plc	0.70	0.56
SP Distribution plc	1.25	1.00
SP Manweb plc	1.68	1.34
Scottish Hydro Electric Power Distribution plc	3.33	2.67
Southern Electric Power Distribution plc	0.84	0.67

## Appendix 4 – Mapping to Costs & Volumes

<b>IIS Reporting Incident template</b>	<b>Reporting Categories will be continued for RIIO-ED1</b>
LV services overhead	LV service Overhead
LV services underground	LV service Underground
LV P&E link boxes only	Plant & Equipment LV link boxes only
LV non-damage	LV Supply Restoration by Switching Only (Non Damage Fault)
LV underground mains damage	LV UG Cables (Non CONSAC)
	LV UG Cables (CONSAC)
LV overhead mains damage	LV OH Lines - Asset Repair
LV all other switchgear, P&E	LV All Other Switchgear, Plant & Equipment (excluding LV link boxes)
HV non-damage	HV Supply Restoration by Switching Only (Non Damage Fault)
HV damage	HV UG Cables - Asset Repair
	HV OH Lines - Asset Repair
	HV Pole Mounted Switchgear Circuit Breakers
	HV Pole Mounted Switchgear (All Types ex CB)
	HV Pole Mounted Transformers
	HV All Other Plant and Equipment (inc GM transformers)
	HV Submarine Cables
EHV non-damage	EHV Supply Restoration by Switching Only (Non Damage Fault)
EHV damage	EHV UG Cables (Pressure Assisted) - Asset Repair
	EHV UG Cables (Non Pressure Assisted)
	EHV OH Lines - Asset Repair
	EHV All Other Plant and Equipment
	EHV Submarine Cables
132kV non-damage	132kV Supply Restoration by onsite switching only
132kV damage	132kV UG Cables (Pressure Assisted)
	132kV UG Cables (Non Pressure Assisted)
	132kV OH Lines - Asset Repair
	132kV All Other Plant and Equipment
	132kV Submarine Cables

## Appendix 5 – Cause Codes

ID	Description
01	Lightning
02	Rain
03	Snow and Ice
04	Ice
05	Freezing Fog & Frost
06	Wind and gale (including windborne material)
07	Solar heat
10	Airborne deposits (excluding windborne material)
14	Condensation
15	Corrosion
16	Mechanical shock or vibration
17	Ground subsidence
18	Flooding
19	Fire not due to faults
21	Windborne Material
22	Disruption of intended indoor environment
23	Falling live trees (not felled)
24	Falling dead trees (not felled)
25	Growing Trees
26	Corrosion due to atmosphere/environment
30	Birds (including swans and geese)
32	Vermin, wild animals and insects
33	Farm and domestic animals
39	Wilful damage, interference
40	Metal theft
41	Accidental Contact, Damage or Interference by Cable TV companies or their contractors
42	Accidental Contact, Damage or Interference by Public Telecoms Operator (eg. BT, Mercury etc) or their contractors
43	Accidental Contact, Damage or Interference by Gas Company or their contractors
44	Accidental Contact, Damage or Interference by water/sewage companies or their contractors
45	Accidental Contact, Damage or Interference by highway authorities or their contractors
48	Accidental Contact, Damage or Interference Involving farm workers or farm implements
49	Accidental Contact, Damage or Interference Involving aircraft or unmanned balloons
50	Accidental Contact, Damage or Interference by private individuals (excl. Aircraft/Balloons/Leisure Pursuits)
53	Accidental Contact, Damage or Interference by unknown third parties
54	Accidental Contact, Damage or Interference by local building authorities or their contractors

ID	Description
55	Accidental Contact, Damage or Interference by private developers or their contractors
56	Accidental Contact, Damage or Interference involving leisure pursuits
57	Accidental Contact, Damage or Interference by other third parties
58	3rd Party - By Cable Communications Operators or their Contractors
60	Accidental Contact, Damage or Interference by DNOC or their contractors
61	Switching error by DNOC staff
62	Testing or commissioning error by DNOC staff
63	Incorrect or inadequate system records, circuit labelling or identification
64	Corrosion due to Bi-Metal Contact
65	Incorrect application of equipment by DNOC staff
66	Faulty installation or construction by DNOC staff
67	Load current above previous assessment
68	Incorrect or Unsuitable protection settings or fuse rating
69	Unsuitable protection settings
70	Inadequate rupturing or short circuit capacity
71	Deterioration due to ageing or wear (excluding corrosion)
72	Fault on equipment faulting adjacent equipment
73	Unsuitable paralleling conditions
74	Failure of infeed from Adjacent Distribution Network
75	Operational or safety restriction
76	Extension of Fault Zone due to Fault Switching (including ASC held faults)
77	Inadequate or faulty maintenance
78	Extension of Fault Zone due to incorrect operation of equipment (includes slow opening CB's)
80	Failure of Supply from Generating Company or NGC
81	Switching Error by Contractors
82	Testing or commissioning error by Contractors
83	Incorrect application of equipment by Contractors
84	Faulty Installation or Construction by Contractors
85	Fault on customers network causing operation of Network Protection
86	Interruption to remove local generator or restore temporary connections. (where in use >18 hours)
87	Local generation failure (isolated system)
88	Distribution equipment affected by National Grid Company personnel or equipment
89	Distribution equipment affected by private generator or authorised electricity operator (not NGC)
90	Faulty manufacturing, design, assembly or materials
97	No Fault Found
98	Cause Unclassified
99	Cause Unknown
A1	Transient Fault - No Repair
A2	Premature Insulation Failure
D	Dummy - Do not set
X	NONE

## Appendix 6 – MEI Codes

ID	Description	Equipment Group	Voltage
0	OH Lines		HV+ voltages
1	UG Cables		HV+ voltages
2	Switchgear/Fusegear		HV+ voltages
2A	Busbars		HV+ voltages
2B	Switchgear & Fusegear		HV+ voltages
3	Transformers/Reactors		HV+ voltages
4	Protection		HV+ voltages
5	Miscellaneous		HV+ voltages
6	Surge Divertor		HV+ voltages
8	Not Applicable		HV+ voltages
9	Unknown		HV+ voltages
X	None		HV+ voltages
00	Overhead Main	OH Mains	LV
01	OH Main - Bare Conductors	OH Mains	LV
02	OH Main - Insulated Conductors	OH Mains	LV
03	OH Main - ABC	OH Mains	LV
09	OH Main - Mixed Conductors	OH Mains	LV
10	Overhead Service(metered)	OH Service	LV
11	OH Service - Bare Conductors	OH Service	LV
12	OH Service - Insulated Conductors	OH Service	LV
13	OH Service - Mixed Conductors	OH Service	LV
14	OH Service - Concentric	OH Service	LV
15	OH Service - Duplex / Triplex	OH Service	LV
16	OH Service - ABC	OH Service	LV
19	OH Service - Other	OH Service	LV
20	Surface Wiring Main	OH Mains	LV
21	Surface Wiring Main - Outdoor	OH Mains	LV
22	Surface Wiring Main - Indoor	UG Mains	LV
30	Surface Wiring Service	OH Service	LV
41	UG Main - PLCS	UG Mains	LV
42	UG Main - Consac	UG Mains	LV
44	UG Main - Waveform (Alpex)	UG Mains	LV
45	UG Main - Districable	UG Mains	LV
49	UG Main - Mixed or Unclassified	UG Mains	LV
51	UG Service - PLCS	UG Service	LV
52	UG Service - Plastic Insulated Concentric	UG Service	LV
53	UG Service - Consac	UG Service	LV
54	UG Service - Waveform	UG Service	LV
55	UG Service - Districable	UG Service	LV
59	UG Service - Mixed or Unclassified	UG Service	LV
60	Switchgear / Fusegear	Fusegear/Switchgear	LV
61	Switchgear - Circuit Breaker	Fusegear/Switchgear	LV
62	Switchgear - Pole Mounted Isolator	Fusegear/Switchgear	LV
63	Switchgear - S/S Fuseboard / Pillar / TMFC	Fusegear/Switchgear	LV

ID	Description	Equipment Group	Voltage
64	Switchgear - Pole Mounted Fusegear	Fusegear/Switchgear	LV
65	Switchgear - Street Feeder Pillar	Fusegear/Switchgear	LV
66	Switchgear - Multi-Service Pillar or Turret	Fusegear/Switchgear	LV
67	Switchgear - Linkbox	Fusegear/Switchgear	LV
68	Switchgear - Fused Wall Box	Fusegear/Switchgear	LV
69	Switchgear - Other	Fusegear/Switchgear	LV
71	Cut-outs (metered)	UG Service	LV
72	OH Service Cut-Out Metered	OH Service	LV
73	UG Service Cut-Out Metered	UG Service	LV
82	OH Service Unmetered	OH Service	LV
83	UG Service Unmetered	UG Service	LV
90	Other		LV
99	Other (Including Unknown)		LV
S1	Suspect UG Fault - possibly overload	UG Mains	LV
S2	Suspect UG Fault - possibly damage	UG Mains	LV
S3	Suspect UG Fault - other	UG Mains	LV
S4	Suspect OH Fault - possibly overload	OH Mains	LV
S5	Suspect OH Fault - possibly tree related	OH Mains	LV
S6	Suspect OH Fault - other	OH Mains	LV
X	NONE		