PR-NET-OSM-015

SYSTEM REPORTING

OPERATIONAL SAFETY MANUAL – SECTION 2.5

Scottish & Southern Electricity Networks

	Name	Title
Author	Paul Murray	Control Centre Manager, SHEPD
Checked by	David Mobsby	Head of System Control, SEPD
Approved by	Richard Gough	Designated Engineer

CONTENTS

1 Introduction

SSEN-D has statutory and regulatory duties to report certain **Incidents**, interruptions and events related to the operation of the Distribution **System**.

The requirements in this **Approved** procedure are intended to ensure information for **System** reporting is relevant, accurate and timely.

2 Scope

This scope of the document relates to the following activities in **SSEN-D**:

- Reporting of supply interruptions in accordance with Regulatory Instructions and Guidance (RIGS)
- Reporting of specified events and certain supply interruptions in accordance with Regulation 32 of The Electricity Safety, Quality and Continuity Regulations 2002 (as amended)
- Reporting of serious Incidents to the Office of Gas and Electricity Markets (Ofgem), and the Scottish Government including the interruption of or imminent interruption of significant numbers of customers
- **SSEN-D** Reporting in accordance with ENA Engineering Recommendation G43, National Fault & Interruption Reporting Scheme (**NaFIRS**)
- Internal reporting of **System Incidents** and interruptions for network performance purposes.

The scope of this document applies to pre-arranged and unplanned interruptions with duration of 3 minutes or longer, and **Short Interruptions** with duration not exceeding 3 minutes.

3 References

This document forms part of the SSEN Distribution Operational Safety Manual, SHE Management System, and business management system. It should be read and used in conjunction with other documents within the manuals and systems; it has however been developed with the user and in-scope activity in mind, meaning it should provide the user with the information they need to complete in-scope activities without referencing other documents.

In addition to the above, this document has been put in place to align SSEN Distribution with the associated Legal requirements and good practice electricity sector guidance.

For further help and guidance on how this document relates to other documents and requirements, please contact a member of the SSEN Distribution Operational Safety team.

4 Definitions

The words printed in bold text within this document are either headings or definitions. Definitions used within this **Approved** Procedure are defined within the list presented immediately below, or within section 2 of the **Operational Safety Rules**.

Incident – unplanned and undesirable event leading to a loss (humane, economic, environmental, customer service, etc). Please note that Appendix A contains a list of incidents according to Regulatory Instructions & Guidance (RIGs).

NaFIRS – National Fault and Interruption Reporting System.

Short Interruption – loss of supply to customer(s) (all voltage levels) due to automatic, manual, or remote-control operation of switchgear or fuse-gear on the distribution or other systems upstream of the customers interrupted, where supply is restored in less than 3 minutes.

5 General Responsibilities

The key responsibilities of person involved in the recording, analysing and reporting of **System** information within the scope of this **Approved** procedure are defined below.

6 General Requirements for Reporting

All **Low Voltage**, **High Voltage** and **Extra High Voltage** unplanned **Incidents**, planned **Incidents**, and **Short Interruptions Shall** be recorded in the Incident management system (SIMS).

It is the responsibility of all staff when managing **Incidents** and **Short Interruptions**, to ensure that relevant and accurate information is conveyed between the field and the Network Management Centres and that the details are recorded correctly as an **Incident**, or **Short Interruption**.

The method of creating **Incidents** or **Short Interruptions** and entering the required data **Shall** be in accordance with training and procedures administered by the Customer Contact Centre.

Reports of **Incidents** and **Short Interruptions** at **High Voltage** and above will be created by one of the following means:

- automatically via SCADA (where a network device has the necessary telemetry)
- manually by an operator (where notification is via means other than SCADA) in the Distribution Control Centre or Customer Contact Centre
- manually via the **NaFIRS** team, if required, post event.

Reports of **Incidents** and **Short Interruptions** at **Low Voltage** will be created by one of the following means:

- manually by an operator in the Customer Contact Centre in real time
- manually via the **NaFIRS** team post event.

The general process in Procedure SLC46 – Qos Interruptions Stage Reporting Pack **Shall** be followed to ensure **SSEN-D** meets its Distribution Licence Conditions with respect to annual regulatory reporting.

7 Reporting Supply Interruptions in Accordance with RIGS

SSEN-D has an obligation to report **Incidents** on its Distribution System to Ofgem in accordance with the Regulatory Instructions & Guidance (RIGs): Annex F – Interruptions.

The following supply interruptions, as defined in the RIGs, **Shall** be reported:

- Customers Interrupted (CIs)
- Customer Minutes Lost (CMLs)
- **Short Interruptions** (SIs)
- Customers Re-interrupted (RIs)
- Occurrences Not Incentivised (ONIs).

Interruptions involving the following should be excluded from reporting under the RIGs:

- Cut-outs, or wiring and equipment connected after cut-out fuse operations (e.g. meters, time switches, etc.)
- Due to failures and overloads on customer equipment or other connected **System** which operate the associated **SSEN-D** protection (e.g. metering circuit-breaker or switch-fuse), and which do not interrupt the supply to other customers
- Pre-arranged works affecting customers for the purpose of meter changes, voltage standardisation and work on service cables and distributors' fuses
- Load shedding in compliance with statutory and/or licence obligations
- Malfunctions of non-**System** equipment (e.g. pilot cables), which do not result in the disconnection of a circuit or equipment connected to the **System**.

The automated interface between the Supply Information Management System (SIMS) and the **NaFIRS** system will transfer the fault report data based upon the category of **Incident**, which is selected either automatically by SIMS or manually by an operator.

When manually selecting the transfer of fault report data, operators **Shall** ensure that the category of **Incident** chosen will transfer reportable **Incidents** or **Short Interruptions** into the **NaFIRS** system.

All pre-arranged supply interruptions **Shall** be recorded in the Companies interruption management system. This includes **Short Interruptions** of less than 3 minutes. This is irrespective of how customers are notified.

Only one pre-arranged supply interruption is required to be recorded in SIMS, where groups of customers are to be interrupted or restored in different stages.

Where a customer's supply is interrupted, as part of the pre-arranged supply interruption, but was missing from the SIMS record for that interruption, then a **NaFIRS** fault report should be raised to capture the supply interruption to these customers.

If a pre-arranged supply interruption is cancelled then, for reporting and audit purposes, a detailed explanation why it was cancelled should be entered in the associated SIMS record.

8 NaFIRs Reporting

General

NaFIRS reports **Shall** be completed as soon as practicable by the **Control Engineer** or Fault Despatcher after fault restoration.

All fault reports **Shall** be completed in accordance with ENA Engineering Recommendation G43/3, 'National Fault & Interruption Reporting Scheme (**NaFIRS**)' and in accordance with Ofgem document 'Regulatory Instructions & Distribution Guidance (RIGs): Annex F – Interruptions'.

Low Voltage NaFIRS Reporting

All unplanned **Incidents** on the **Low Voltage System Shall** be recorded in SIMS, where possible. A manual "**LV NaFIRS**" fault report **Shall** be raised for any unplanned supply interruptions not recorded in SIMS.

NaFIRS fault reports **Shall** be completed for all **Incidents** on the **Low Voltage System**, whether generated automatically from SIMS or generated manually. This includes **Short Interruptions** of less than 3 minutes.

The Fault Despatcher **Shall** be responsible for completing **LV NaFIRS** fault reports for **Incidents** except in exceptional weather events when local despatch is in operation. The **NaFIRS** team will also create **Low Voltage Incidents** in SIMS and **LV NaFIRS** fault reports, where required, after post event audits, to ensure accuracy of **LV NaFIRS** reporting.

Any **LV NaFIRS** fault data/fields not automatically populated from SIMS **Shall** be completed manually.

Faults due to unmetered supplies and cut-outs on the **Low Voltage System** should be reported as Occurrences Not Incentivised as opposed to a **NaFIRS** fault report.

For staged interruptions and or restorations then manual entries should be made to reflect this in the **NaFIRS** fault report.

Any re-interruption of supply more than 3 hours after all customers are restored from the network should be treated as a new Incident and requires a new **NaFIRS** fault report to be completed.

High Voltage NaFIRS Reporting

Requirements for **High Voltage NaFIRS** Reporting are broadly similar to those for **Low Voltage** reports (see above).

The automatically generated **NaFIRS** identification number **Shall** be used for **High Voltage NaFIRS** reports. Where available, the ENMAC job number should also be referenced.

The **Distribution Control Engineer Shall** be responsible for completing **NaFIRS** reports for faults on **SSEN-D's High Voltage System**.

9 ESQCR Reporting

Requirements for reporting of specified events and certain supply interruptions in accordance with Regulation 32 of The Electricity Safety, Quality and Continuity Regulations 2002 (as amended) are detailed in PR-NET-OSM-078 Reporting Requirements for Electricity, Safety, Quality, and Continuity Regulations - Operational Safety Manual – Section 12.7.

10 Reporting of Serious Incidents to Ofgem, DESNZ and the Scottish Government

Introduction

Ofgem, DESNZ, and the Scottish Government have requested that all network operators including **SSEN-D** make them aware of certain serious energy **Incidents** as soon as possible including the interruption of, or imminent interruption of, significant numbers of customers.

This request is intended to complement and not replace the existing requirements to report certain energy Incidents to Department for Energy Security and Net Zero (DESNZ).

To facilitate this request, 24-hour, 7-days per week contact telephone numbers are now in place for an Ofgem Duty Officer and a Deputy Duty Officer.

For **Incidents** in Scotland only, notification of serious energy **Incidents** should be also escalated to the Scottish Government Critical Infrastructure Resilience Unit (CIRU) via the 24-hour contact details below.

Ofgem Criteria for Reporting

The requirements for reporting serious **Incidents** to Ofgem are provided in Appendix B.

Guidance on the information needed when reporting serious Incidents to Ofgem is provided in Appendix C.

DESNZ Criteria for Reporting

So far as Electricity Distribution is concerned, the following **Incidents** should be reported to DESNZ as soon as possible:

Table 10.1 - DESNZ Incident Reporting Criteria

Customers Affected	Duration
100,000	> 3 minutes
50,000	> 2 hours
20,000	> 12 hours
5,000	> 24 hours
Any security compromise concern.	

If **Incidents** are expected to reach/exceed these durations, then they **Shall** be reported immediately in accordance with the specific reporting procedure below.

NOTE: The criteria shown above relates to Loss of Supply **Incidents**. Other **Incidents** that require a report to DESNZ are covered by the DESNZ **Incident** Reporting Framework (see Appendix B of PR-NET-EPR-019 for details).

Specific Reporting Procedure

The Responsible Manager on Shift in the Distribution Control Centre or Customer Contact Centre, as applicable, **Shall** be responsible for registering that a reportable serious **Incident** under this procedure is developing or has taken place.

Any other **SSEN-D** staff who may become aware of an **Incident** meeting the threshold should confirm with the appropriate control centre that the **Incident** has not already been escalated prior to acting.

With regard to Safety, Health and Environment **Incidents** which qualify for reporting under this **Approved** procedure; the Head of Safety, Health and Environment (or their nominated deputy) is responsible for ensuring the respective Control Centre is made aware of each incident, and for agreeing thereafter the reporting detail. For consistency, the relevant Head of the Distribution Control Centre will complete the reporting process to Ofgem, DESNZ, and/or Scottish Government as required under this **Approved** procedure.

The Responsible Manager on Shift in the Distribution Control Centre or Customer Contact Centre, as applicable, **Shall** firstly report the **Incident** to the relevant Head of the Distribution Control Centre or Head of the Customer Contract Centre (North or South), as applicable, who **Shall** then inform the respective Director of Operations.

The relevant Head of the Distribution Control Centre, or nominated deputy, **Shall** telephone and/or email the following parties, as appropriate to the reporting criteria (see section 10.2), to notify them of the serious **Incident** subject to having the reportable information agreed (see section 10.5):

- Ofgem Duty Officer on 020 7901 7456 or, if not available, the Ofgem Deputy Duty Officer on 020 7901 7496 with email to dutyofficer@ofgem.gov.uk
- DESNZ 24/7 Duty Officer on 0300 068 6900 followed by an email to DESNZ.ERCO@energysecurity.gov.uk and dger@energysecurity.gov.uk
- Internal Ofgem teams by email to QoS@ofgem.gov.uk for Electricity Distribution.

Additionally, for Incidents in Scotland

Scottish Government CIRU on 0300 244 1062 or, if not obtainable, the Scottish Government CIRU Duty Pager on 07659 182 278.

Following notifications made, the relevant Head of the Distribution Control Centre, or nominated deputy, **Shall** email details of the **Incident** and associated report to the following **SSEN-D** managers, as a minimum:

- Relevant Director of Business Area / nominated deputy
- Head of Corporate Affairs for Distribution
- Designated Engineer
- Duty Manager.

Information to be Reported

Guidance on the information needed when reporting serious Incidents to Ofgem is provided in Appendix C. This should also be used as a guide when preparing reports related to serious **Incidents** to DESNZ and Scottish Government.

Other Considerations

For the type of serious **Incidents** noted in section 10, it is more than likely that a full emergency will be declared and any follow-up with Ofgem and, if applicable, the Scottish Government will be handled by the SSE Gold Command team. It is important however to ensure that the initial contact with Ofgem and, if applicable, the Scottish Government is made as soon as possible, in accordance with this **Approved** procedure to allow them to understand the seriousness of any particular **Incident** and decide what further action they should take.

Under the Security of Network and Information Systems Regulations (NIS Regulations) **SSEN-D** is obligated to report any **Incident** which impacts the underlying service or security of information systems, i.e. Information Technology (IT) and Operational Technology (OT), that support the proper operation of the electricity network (see section 3 of PR-NET-EPR-019 for details).

In case of an **Incident** the Responsible Manager on Shift within the Distribution Control Centre or Customer Contact Centre, as applicable, **Shall** escalate this via the IT Cyber Security 30-minute reporting line: Dial 0800 107 3207 and select Option 5.

11 Internal Reporting of Network Performance

The **NaFIRS** team **Shall** be responsible for the following activities associated with Distribution network performance reporting:

- Monthly internal auditing of **Incidents** and publishing the associated reports
- Provision of all network performance management information
- Provision of all regulatory network performance information as specified in Condition 46 of the Distribution Licence
- Provision of all data required for the annual Ofgem external audit
- Provision of network performance information to other external parties as required
- Provision of network performance information to the Energy Networks Association (in accordance with Engineering Recommendation G43) for inclusion in their annual reports.

12 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New document created.	NA.	1.00	Richard Gough
02	Minor administration revisions completed, and revised Ofgem reporting requirements included.	PR-NET-OSM-015 Rev 1.00	2.00	Richard Gough
03				

Appendix A Occurrences Classed as RIGs Incidents

The following occurrences are classed as **Incidents** according to the Regulatory Instructions & Guidance (RIGs): Annex F – Interruptions for Distribution:

a) 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.

b) 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**.

c) Failures of non-**System** equipment (e.g., pilot cables, oil and gas alarms, voltage control equipment etc) which result in the disconnection of equipment energised at power system voltage.

d) Incorrect operations of protection equipment which result in the disconnection of a circuit energised at power system voltage.

e) 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.

f) The loss of infeed from other connected systems, including those owned by National Grid or Transmission Companies, other distribution companies and distributed generators.

g) The pre-arranged isolation of any circuit or item of equipment energised at power system voltage that results in loss of supply.

Appendix B Requirements for reporting serious energy incidents to Ofgem

NOTES:

a) The table provided below is a copy of the requirements as provided by Ofgem.

b) Please note that the requirements not related to **SSEN-D** (SSEN Distribution) in the table below have been 'struck through' and left remaining in the table for user information and awareness.

c) Please note these requirements to not include reporting of Cyber Security incidents which fall in the remit of Network and Information Systems (NIS) Regulations 2018.

d) These Ofgem reporting requirements apply in all cases, including situations when DESNZ has convened an Emergency Response Team.

Tier 1	Tier 2	Tier 3
Call and email the Ofgem Duty Officer within 60 minutes of incident occurrence	**Email the Ofgem Duty Officer within 3 hours of incident occurrence**	**Email the Ofgem Duty Officer within 24 hours of incident occurrence**
	~~System Operator~~	
~~High Risk of Demand Reduction (HDRD) or Demand Control Imminent (DCI) notices are issued~~	~~Restoration readiness falls below minimum requirements~~	
~~Low Frequency Demand Disconnection (LFDD) or Voltage Control Reduction triggered~~	~~System Operator activation of Silver Command Process~~	
~~Electricity Margin Notice or Gas Balancing Notification issued~~		
	Electricity	
~~Failure of the Electricity Transmission System~~	Supply failure > 50k customers for > 3 minutes	Supply failure > 50k customers for < 3 minutes
Supply failure > 100k customers for > 3 minutes	Supply failure > 20k customers for > 2 hours	Supply failure > 20k customers for < 2 hours
Supply failure > 50k customers for > 2 hours	Supply failure > 5k customers for > 12 hours	Supply failure > 5k customers for < 12 hours
Supply failure > 20k customers for > 12 hours	Significant reactive works with public impact	Electricity incident with the potential to impact gas system (eg loss of power to a gas terminal)
Supply failure > 5k customers for > 24 hours	Transmission / Distribution Network failure that has potential to cause disruption in line with thresholds above	

~~Gas~~		
~~National blackout plan enacted~~	~~Significant planned / reactive works with public interest~~	~~Supply failure to 250 – 1,000 customers~~
~~Supply failure > 1,000 customers~~		~~Gas Related Fatality or Injury~~
Physical Damage / Malicious Acts		
Explosion, fire or structural damage that could lead to death or serious injury	Incident resulting in a dangerous level of gas released as noted in the IGEM/GL8 standard	Any physical incident of a malicious / suspicious nature which would not normally be reportable but occurs during significant context (e.g., concerns about staff, unauthorised access etc.)
Any network related fatality or injury		Other dangerous occurrences
Supply Chain		
	Potential operational impacts possible within 48 hours due to supply chain issues and delays, with the situation not expected to improve within this timeframe	Potential operational impacts possible within 7 days due to supply chain issues and delays, with the situation not expected to improve within this timeframe
Absenteeism		
	Critical operation impact is expected within 48 hours due to staff absenteeism in critical roles, staffing levels are not expected to improve within this timeline	Critical operational impacts are possible within 7 days due to staff absenteeism in critical roles, staffing levels are not expected to improve within this timeline
Media		
Any incident which has / is expected to have national news coverage	Any incident which has / is expected to have regional news coverage	
Other		
Failure of customer contact numbers (105 / 0800)	Significant environmental damage	Environmental damage
	Commencement of any emergency response preparations or processes within your organisation	NEWSAC meeting called

Appendix C Guidance on information needed when reporting serious energy incidents

What has happened?

- What has caused the incident to happen?
- When did it happen?

Location?

- Address / Postcode / Ordinance Survey Reference Number.
- Transmission Operator / Distribution Network Operator / Gas Distribution Network affected.
- Type of area (i.e. rural/city).

Impacts?

- How many customers are affected?
- Are there any major commercial or public sites that are affected. (e.g., hospitals)?
- Are there any public alerts or warning messages that have been. issued or are planned to be issued?
- Are there any casualties? Is it public knowledge if there are any casualties?
- What is the estimated restoration time for supply or stabilisation?

Mitigations?

- Has DESNZ Energy Response Team (ERT) been activated or is it likely to be?
- What are you doing to resolve the situation and minimise the impacts?
- What provisions have been put in place for vulnerable customers?
- Who else is involved; are you engaging with the Health and Safety Executive (HSE), emergency services or any other authorities?

Interdependencies?

- Is other energy infrastructure affected, and are there any interdependencies with other infrastructure or sectors? If so, what is the impact or potential impact?

Communication?

- What media communications have there been to date?
- How are you communicating updates to the public?
- Have you issued public communication lines to inform the public of the situation?
- What is the schedule for future updates?
- Are there any points of contact Ofgem should be aware of?

Outlook?

- How long is it anticipated before the situation will be returned to normal?
- Is the situation getting worse/better/stabilising?
- Is this expected to change in the future; if so, how, and when?