Exercise FAHRENHEIT 2024 NEC Assurance Exercise Industry Briefing

Network Emergency Co-ordinator





Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

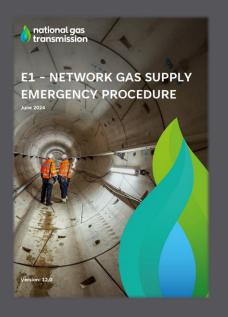
Contact >

Appendices >

Exercise FAHRENHEIT is the Gas Industry's annual Network Gas Supply Emergency (NGSE) Network Emergency Co-ordinator (NEC) assurance exercise.

Exercise FAHRENHEIT will focus on NEC communications with all industry participants through all stages of an emergency, both in the lead up and during an NGSE, and assure that industry participants are aware of their obligations to comply with NEC instructions.



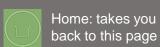


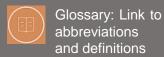
The 'E1 Network Gas Supply Emergency Procedure' sets out how NGSEs are managed. Version 12 was published in June 2024. Click the image on the left to access this important document

Click the image on the right to watch a short video which explains the NGSE Response Framework



This is an interactive document. The buttons below feature on the left bottom corner of each page for your convenience. Use them as follows:







Navigation: takes you to the next or previous page







Introduction >

Executive

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >

Appendices >

Executive Summary

- It is essential for the gas industry to be able to manage an emergency situation safely and effectively; the annual exercise is one of the key methods to demonstrate its preparedness.
- The NEC has a legal requirement to provide assurance that the gas industry can take action to manage and recover from a gas deficit emergency.
- Exercise FAHRENHEIT will simulate a series of supply losses to trigger an NGSE.
- Industry notifications shall be tested through the activation of a Gas Balancing Notification (GBN) and Emergency Declarations.
- Exercise FAHRENHEIT will seek to test communication methods between National Gas' Network Emergency Management Team (NEMT) and all relevant gas industry participants to complete the principal objectives set out in this briefing note.
- Exercise FAHRENHEIT will look to test that both gas and electricity participants can appropriately respond to a gas supply shortage which has electricity system implications.
- The NEC will request a feedback report from all participants involved upon completion of the exercise to inform the compilation of the post exercise report.

Thursday 10th October Pre-Emergency

Friday 11th October **Emergency**

Wednesday 16th October Isolation



Introduction >

Executive Summary >

Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >

Appendices >

Aim and Objectives

The aim of this exercise is to demonstrate that the Gas Industry is prepared and able to meet its obligations in the event of a Network Gas Supply Emergency (NGSE). This will be demonstrated by effective two-way communication processes across the industry and its stakeholders; timely and accurate information being shared between participants; and effective emergency strategies being produced and implemented.

In achieving this demonstration, the following objectives will be met:

- Test the management of an emerging gas supply shortage, using warning notices and the establishment of proactive communication channels, then gain an understanding of how these are received by industry (post exercise)
- Test the development and delivery of the pre-emergency strategy, through:
 - the simulated activation of all viable commercial and physical tools
 - the capability of the Primary Transporter to form an accurate situational awareness through industry collaboration
- Practice and enhance processes and tools associated with the interactions between gas and electricity organisations during times of whole energy system stress, supported by active participation from the Electricity System Operator and **Electricity Distribution Network Operators**
- Test industry's ability to warn and inform the public through participation of Corporate Affairs' representatives from the Energy Networks Association, Gas Transporters, the Electricity System Operator and Electricity Network Operators, including changes made to modernise the public appeals process
- Test that recommendations from previous industry emergency exercises have been delivered and are effective
- Validate emergency procedures, specifically, National Gas' E3; the E3 documents of the Distribution Networks; the E1 Network Gas Supply Emergency Procedure and NEC Safety Case



Introduction >

Executive Summary >

Aim and Objectives >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >

Appendices >

Exercise Scope

Thursday 10th October **Pre-Emergency**

- Gas Transporter Collaboration
- Gas Balancing Notification (live issue marked for exercise)
- Gas Availability Status (GAS) Report

(live population marked for exercise)

- Scale-back Off-peak Exit Capacity (consideration of live data by GSO but no further communications issued)
- Activation of Operating Margins Contracts

(testing of contract activation process for Exercise)

Friday 11th October **Emergency**

- Declaration of an NGSE (live issue of Emergency declaration marked for exercise)
- Stage 1: Determine Use of Available Gas (exhaust available Stage 1 actions)
- Stage 2: Entry Point Flow Directions

(live issue of directions to maximise flows marked for exercise)

 Stage 2: Load Shedding Directions*

(live issue of directions to cease taking gas marked for exercise)

 Public Appeal (notional issue)

Wednesday 16th October Isolation

- Public Appeal (notional issue)
- Stage 3: Allocation and Isolation (live issue of allocation and isolation directions marked for exercise)

Note: The scope listed here is the expected activity live responders are likely to generate against the exercise scenario. The actual response may differ dependant on live strategy considerations and NEC approvals.

* Load shedding exercises for the LDZs takes place separately to the delivery of the NEC Industry Exercise. Load shedding directions issued for Exercise FAHRENHEIT shall be regarding Interconnectors and National Transmission System connected customers. LDZ load shedding shall form part of the response strategy, but delivery of load shedding directions shall be notional



Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >

Appendices >

Simulated data

In this exercise, simulated data will be used in the scenario in order to ensure processes to manage a Network Gas Supply Emergency are fully tested. This will include using data and weather from periods of high demand.

Whilst this introduces mock conditions and reliance on a pre-determined data set, it ensures we can reliably advance through the NGSE stages during a guaranteed period of high demand and without having to introduce any unrealistic incidents to create a supply constraint.

Every morning of the exercise, National Gas' Exercise Control will hold a short webinar which exercise participants should attend to be briefed on the latest response position. Exercise Control will give a national perspective of the exercise conditions and the simulated weather pattern.

All participants should respond to exercise communications as if the scenario were a real event, taking care to utilise the exercise protocols to denote that communications are related to the exercise, not real life, see 'Exercise Initiation' for more detail on these protocols.



Exercise Participation

Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise

Exercise Initiation >

Exercise Reporting >

Contact >

Appendices >

Government and Regulators

Department for Energy Security & Net Zero

North Sea Transition Authority (NSTA)

Health and Safety Executive (HSE) [Observing]

Office of Gag and Electricity Markets (Ofgem)

Network Emergency Co-Ordinator (NEC)

Energy Networks Association

National Gas Transmission

Crisis Management Team (CMT)

Network Emergency Management Team (NEMT)

Corporate Affairs Response Team (CART)

National Transmission System (NTS) Silver Command

National Grid Electricity System Operator (ESO)

Electricity System Distribution Network Operators

Terminal Operators and LNG Importation **Terminals**

| Terminals: | | | |
|------------------------------------|-------------------------------------|--|--|
| Easington – Gassco, Langeled | St. Fergus – Ancala (Wood), SAGE | | |
| Easington – Centrica | St. Fergus – NSMP (PX) | | |
| Storage, Rough | St. Fergus - Shell | | |
| Easington – Perenco, Dimlington | St. Fergus – National Gas | | |
| Burton Point - ENI | Teeside – Antin (Wood), CATS | | |
| Bacton - Shell | Teeside - PX | | |
| Bacton – National Gas | Barrow – Spirit Energy | | |
| Bacton - SEAL | Somerset Farm | | |
| Bacton - Perenco | Angus Energy | | |
| LNG Terminals: | | | |
| Milford Haven – South Hook | | | |
| Milford Haven – Dragon | | | |

Isle of Grain - National Grid

Storage Facilities

Aldborough - Equinor / SSE Gas Storage

Hatfield Moor - Scottish Power

Hilltop - EDF Energy

Hole House - EDF Energy

Holford - UniPer

Hornsea - SSE Gas Storage

Humbly Grove -Humbly Grove Energy

Stublach - Storengy

Shippers

National Transmission System - Directly **Connected Sites**

Gas Distribution **Network Operators**

Cadent Northern Gas Netwoks (NGN) SGN

Wales and West Utilities (WWU)

Interconnectors

BBL - BBL Company

Irish Interconnector -Gas Networks Ireland (GNI)

Interconnector Limited









Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Reporting >

Contact >

Appendices >

Exercise Initiation

The exercise will commence with the briefing of the National Gas System Operations Duty Officer c.09:00 hours, on Thursday 10th October 2024. The Duty Officer will review the scenario information and determine the requirement to mobilise. Upon the decision to mobilise, a message will be issued to industry, which will include a brief situation report, utilising established communication paths, stating:

"Exercise FAHRENHEIT – Start of Exercise"

The exercise will pause c.16:00 hours, on Thursday 10th October 2024, and re-commence with a short re-briefing c.09:00 hours Friday 11th October 2024. This process will repeat on Wednesday 16th October 2024.

The exercise will end at the discretion of Directing Staff, in discussion with the HSE, c.16:00 hours, on Wednesday 16th October 2024. A message will be issued to industry stating:

'Exercise FAHRENHEIT – End of Exercise'

A 'hot' debrief will take place immediately after the end of the exercise for the National Gas participants. All other participants are requested to consider holding a similar debriefing session, in isolation, to gather feedback and identify lessons learnt.

Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise

Contact >

Appendices >

Exercise Reporting

Following the exercise and receipt of industry feedback, the Office of the NEC will prepare a report on Exercise FAHRENHEIT detailing the effectiveness of the industry response to NEC notifications. The report will incorporate industry feedback and relay recommendations for improvements to the emergency arrangements. This will be published on National Gas' and the HSE's websites.

Each organisation participating in Exercise FAHRENHEIT is requested to appoint an exercise observer who can provide observations and feedback on the exercise. National Gas will publish an online feedback form at the end of the exercise, in order to gather industry feedback and lessons learnt. A guide to 'exercise reporting' is available in the 'Industry Exercise Participant Requirements' section on the 'NGSE Pages' on the National Gas website

Click the image on the right to review the Post Exercise Report for the 2023 NEC Industry Exercise **EVEREST**





Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >

Appendices >

Contact

Should you have any queries or require further information regarding any aspect of Exercise FAHRENHEIT, please visit the National Gas emergency information website, where the 'Industry Exercise Participant Requirements' tab features guides bespoke to groups of specific users namely: Directly Connected Sites; Shippers; Storage Operators; Supplementary Transporters; and Terminals.

www.nationalgas.com/safety-andemergencies/network-gas-supply-emergency

You can also get in touch with the National Gas Energy Emergency Team using the contact details provided below:

gasops.emergencyplanning@nationalgas.com







Appendices

Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >



Industry Working Groups

List of Abbreviations and Definitions











Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >

Appendices >

Appendix 1 – The NEC

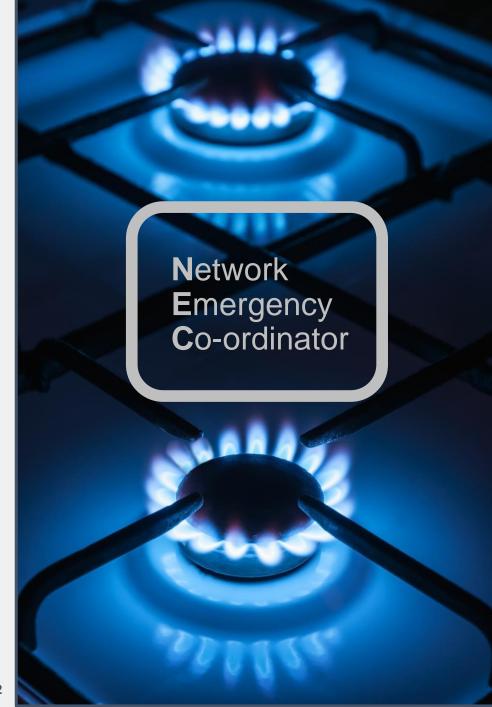
The Network Emergency Co-ordinator (NEC) independent industry role, established under the Gas Safety (Management) Regulations (GS(M)R), whose duty is to coordinate the actions across affected points of the gas network to prevent or minimise the consequences of a Network Gas Supply Emergency (NGSE). This is defined as "an emergency endangering persons arising from a loss of pressure in a network, or part thereof".

The role of the NEC is currently undertaken by National Gas Transmission and is independent from any commercial interests of any organisation within the Gas Industry.

Industry participants such as Transporters and Shippers have a legal duty to cooperate with the NEC, who has the powers to direct the defined duty holders.

Click the image on the right to watch a short video which explains the role of the NEC











Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >

Appendices >

Appendix 2 – Industry Working Groups

Energy Emergency Executive Committee (E3C)

The Energy Emergency Executive (E3) and its Committee (E3C) are the principal fora for identifying both the risks and mitigating processes and actions necessary to manage the impact of emergencies affecting the supply of gas and/or electricity to consumers in GB.

NEC Safety Case Forum

Bi-annual meetings are held with this Duty Holder group to ensure that developments to the NEC's Safety Case and responses to an emergency are agreed and implemented across the Gas Transporters.

E3 Alignment Group (E3AG)

A subgroup of the NEC Safety Case Forum, focused on the alignment of NGSE Management & operational processes between gas transporters. The group focuses primarily on the issues of communications, procedures, data transfer and the responsibilities of the respective gas transporters.

Gas Task Group (GTG)

The GTG facilitates Gas Industry and government dialogue to enable effective emergency planning and response, effective development of policy, standards and codes, increase resilience through risk identification and delivery of mitigation actions; and to ensure continuous improvement through exercising and implementation of lessons learned.

Electricity Task Group (ETG)

The ETG's role is to ensure that the electricity sector in Great Britain is aware of, and prepared for, a variety of emergencies that may negatively impact electricity supply and, more widely, the energy sector.

Electricity & Gas Resilience **Interactions Task** Group (EGRITG) (formally RIGSSE)

In 2021, the RIGSSE (Review of the Impact of a Gas Supply Shortage on Electricity) Task Group was formed to facilitate Gas Industry, Electricity Industry, Government and regulatory dialogue to review current 'whole energy system' interactions in the event of a gas supply shortage, or restrictions on the ability to transport gas, which impact the electricity network. The 'review' activities of the RIGSSE Task Group came to a close at the end of 2021 with the publication of an opportunities report. The RIGSSE Task Group has now been replaced by a more sustained position in the form of the EGRI (Electricity & Gas Resilience Interactions) Task Group, responsible for driving forward the RIGSSE opportunities which have not already been developed, and to horizon scan for further opportunity areas.

Communications **Task Group** (CTG)

The CTG exists to support and foster effective government, regulator and industry wide collaboration on issues relating to communications around gas and electricity sector emergencies.



Appendix 3 – List of Abbreviations and Definitions

Introduction >

Executive Summary >

Aim and Objectives >

Exercise Scope >

Simulated Data >

Exercise Participants >

Exercise Initiation >

Exercise Reporting >

Contact >

| CTG | Communications Task Group (see App 2 – Industry Working Groups) | GSO | Gas System Operator (National Gas) |
|--------|--|------|---|
| DESNZ | Department for Energy Security & Net Zero (UK Government) | GTG | Gas Task Group (see App 2 – Industry Working Groups) |
| DNO | Distribution Network Operator (Electricity) (See ENA website – Who's My Network Operator) | HSE | Health and Safety Executive (UK Government) |
| E3C | Energy Emergency Executive Committee (App 2 – Industry Working Groups) | LDZ | Local Distribution Zone within Gas Distribution Networks |
| EGRI | Electricity & Gas Resilience Interactions Task Group see (App 2 – Industry Working Groups) | МСМ | Million Cubic Metres (Gas unit of measurement for NTS) |
| ENA | Energy Networks Association (See ENA website) | MN | Gas Margins Notice (See NG Website) |
| ESO | National Grid Electricity System Operator | NEC | Network Emergency Co-ordinator (see App 1 - The NEC) |
| GBN | Gas Balancing Notification (See NG Website) | NEMT | Network Emergency Management Team (National Gas - GSO) |
| GDN | Gas Distribution Network (<u>See ENA website – Who's My Network</u> <u>Operator</u>) | NGSE | Network Gas Supply Emergency (See NG website) |
| GS(M)R | Gas Safety (Management) Regulations 1996 | NTS | National Transmission System (National Gas) |
| GNCC | Gas National Control Centre (National Gas) | NSTA | North Sea Transition Authority (UK Government) (See NSTA website) |

Emergency Specification gas

GS(M)R makes provision to widen the standard gas quality specification to 'prevent a supply emergency'

GAS Report

Gas Available Status Report which enables the GSO to better request information, via the NSTA GAS Portal, to understand gas availability from the offshore and onshore sector



Network Emergency Co-ordinator

