

E1 Network Gas Supply Emergency Procedure

Version change review log

October 2023 Version 11

Introduction

This report concerns the annual review of the E1 Network Gas Supply Emergency Procedure (E1)

The version of the E1 subjected to review was version 10. That version of E1 was accepted by the E3 Alignment Group in May 2021 following general non-material textural changes to the existing procedure.

The review of version 10 of E1 was completed during October 2023 by the Energy Resilience Team at National Gas Transmission and was accepted by the E3 Alignment Group.

Review of T/PM/E/1

The review of version 10 of E1 identified a number of areas where amendments to E1 were required. These are described in detail throughout the following pages of this review document.

The following changes have been made throughout the document and are therefore not individually referenced in the tables which follow:

- National Gas Transmission: All reference to National Grid Gas has been updated to National Gas Transmission (NGT)
- Department for Energy Security and Net Zero: All reference to Department for Business Energy and Industry Strategy (BEIS) has been updated to Department for Energy Security and Net Zero, in its first reference, then DESNZ thereafter
- Primary Transporter: Reference to the Primary Transporter has been changed to Network Emergency Management Team (NEMT) where appropriate, to provide a more direct reference to which element of the Primary Transporter is undertaking specific activities.
- North Sea Transition Authority (NSTA): All reference to the Oil and Gas Authority (OGA) has been updated to the North Sea Transition Authority
- GDN: All reference to DN has been expanded to Gas Distribution Network (GDN)

Section Requiring Amendment		Description of Amendment
Section Number	Section Title	
Introductory Pages	Document Title	The document has been re-named 'E1 Network Gas Supply Emergency Procedure' from 'T/PM/E1 Network Gas Supply Emergency procedure'. This removes the code based title of the document which referred to heritage naming conventions superseded many years ago.
Introductory Pages	Forward	This section has been amended to reflect that the NEC has not approved this procedure. Detailed regulatory review has found that this document was unnecessarily being approved by the NEC. The requirement to prepare an E1 document is upon the Primary Transporter. The Primary Transporter should take care to appropriately reference the NEC Safety Case but is not obligated to have this procedure approved by the NEC. NGT has shared the detail of this document with the NEC, and the document itself assures NGT is able to conform with the NEC Safety Case, but for this revision internal approval within NGT by the Energy Resilience Manager will be the enduring approach to NGT governance. This NGT governance is supplemented by external review by HSE, DESNZ, and the GDNs, through the E3 Alignment Group.
		A more contemporary explanation has been added to this section with regard to the provision of this document to 'users'. Explicit reference to the UNC obligation on this is added and the text is more reflective of this.
Introductory Pages	Introduction	Some additional detail has been added to this section to outline the management of E3 documents by all Gas Transporters
		A more detailed definition of a Network Gas Supply Emergency has been added to this section.
		Definitions have been removed from this section to avoid duplication, as these terms are defined in detail in specific sections shortly after. A link to a newly constructed glossary has been added to prevent several references to term definitions throughout the document.
		Further information on the content of this procedure has been added for the reader's convenience and broader understanding.
Introductory Pages	Scope	This section has been refined to a single paragraph. Additional sentences in version 10 were assessed to be duplicating the detail of this single paragraph and have therefore been removed.
Introductory Pages	Purpose	A paragraph which appeared in version 10 of the procedure has been removed from this section as it was assessed to be defining the causes of an NGSE too early in this document. The detail which this paragraph contained is covered in Section 2.4. 'Classifications of an NGSE'.
		A paragraph which appeared in version 10 of the procedure has been removed from this section as it was assessed to be defining the Stages of an NGSE too early in this document. The detail which this paragraph contained is covered in Section 3.3 'NGSE Stages'.

Section Requiring Amendment		Description of Amendment
Section Number	Section Title	
Part 1		
	The Network	This section was section 2 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
	Figure 1	<p>This illustration was labelled figure 3 in version 10 of E1. The illustration has been re-drawn to simplify what it depicts. This includes removing specific company/site names and listing primary system supply points as they are defined in this procedure.</p> <p>The version 11 revision of this section has taken care to more accurately reference the GS(M)R definitions for the various entry and exit points from the Primary System, illustrated in Figure 1.</p> <p>This is particularly relevant for how Interconnectors are defined. A pipeline which conveys gas to Great Britain from another country is defined in GS(M)R (guidance notes figure 1) as an Interconnector. To aid understanding '(import)' has been added to all future references of the term 'Interconnector'. What is colloquially known as Interconnector export is defined by GS(M)R (guidance notes figure 1) as 'A pipeline conveying gas to another country'. This version of the procedure has therefore been updated</p> <p>Reference to the Scotland Northern Ireland Pipeline (SNIP) under Supplementary Systems is assessed to unnecessarily specifically reference one Supplementary System over all others. Similar to the removal of specific company/site names, as explained above, this specific reference to SNIP has been removed in favour of the overall reference to Supplementary Systems.</p>
1.1	Primary System	This section was section 2.1 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
1.2	Secondary Systems	This section was section 2.1 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
		Additional text has been added to this section to appropriately define 'pipes conveying gas to another country' and clarify that they are a category of secondary system.
1.3	Supplementary Systems	This section was section 2.3 in version 10 of E1. Apart from section numbering and location in the document, no further changes have been made.
1.4.1	Network Entry Facilities	This section was section 3 in version 10 of E1. This section has been redrafted to assure explicit reference to the GS(M)R definitions of Network Entry Facilities.

1.4.2	Gas Storage Facilities	This section was section 3.4 in version 10 of E1. The statement detailing that additional facilities which may come online between revisions of this procedure has been removed given specific sites are no longer referenced.
1.4.3	Interconnectors	This section was section 3.6 in version 10 of E1. This section has been edited to more accurately define Interconnectors in line with the GS(M)R definition. The context of this section is 'supplies to the Primary System', therefore reference to 'Interconnector to Ireland' has been removed, as this pipeline is not currently capable of physically conveying gas to Great Britain.

Section Requiring Amendment		Description of Amendment
Section Number	Section Title	
Part 2		
Part 2	NGSE Management Principles	This section has been moved forward in this new revision of E1 enabling the various NGSE definitions and explanatory text of causes to be consolidated into a latter 'Emergency Strategy' section labelled 'Part 3'.
2.1	Normal Network Operation	This section was previously titled 'causes of an NGSE' and labelled section 5 in version 10 of E1. This section has been re-titled 'normal network operation' to more accurately reflect the text it carries. Text defining the categories of NGSE has been moved (Section 2.4) and the paragraph now has a more logical flow into the topics of Operating Margins (2.2) and the Safety Monitor (2.3).
2.2	Operating Margins	This section was section 3.4 in version 10 of E1. This section was previously included in the description of 'supplies to the primary system'. It has been moved here as the review team assessed it is more logically aligned to follow the explanation of 'normal network operation'.
		The text in this section has been updated with more explicit definitions of Operating Margins including precise references to where OM is obligated.
2.3	Safety Monitor	This section was section 3.5 in version 10 of E1. This section was previously included in the description of 'supplies to the primary system'. It has been moved here as the review team assessed it is more logically aligned to follow the explanation of 'normal network operation'.
		The text previously available to provide an explanation of the Safety Monitor was limited. A more comprehensive definition has been provided with more explicit definitions which are more precisely referenced. Sections of text on the subject which were previously located in other areas of the E1 document have been moved to this section for the convenience of the reader.
2.4	Classifications of an NGSE	This section was section 6 in version 10 of E1. Text previously included in a section titled causes of an NGSE has been consolidated into a short introductory paragraph to this section.
		Some minor grammatical change has been undertaken
		Some detail in explaining the Safety Monitor has been moved from this section to Section 2.3, which is now a more comprehensive and single explanation of the safety monitor, to provide a better flow to the document.
2.5	Figure 2	This illustration has been updated from that provided as Figure 4 in version 10 of E1. The formatting of the illustration has improved and some of the contacts have been consolidated.

	NGSE Communications	The existing text previously provided as section 7.1 in version 10 of E1 is unchanged. Text previously provided in section 7.2 of E1 has been consolidated into this section of this revision to aid the flow of the document.
		Clarification has been made to the text explaining the obligations of those with a duty to cooperate with the NEC to provide two forms of 24-hour contact to the Primary Transporter. These clarifications are in line with that stated in Section Q of UNC which is now more precisely referenced.
2.6	Network Emergency Management Team	This section was included in the introductory sections of the previous version 10. The review team assessed that the overview of the NEMT flowed more naturally from this location in version 11.
		The NEMT overview has been separated from the overview of the BEIS (now DESNZ) ERT.
2.7	Department for Energy Security and Net Zero ERT	This section was included in the introductory sections of the previous version 10. The review team assessed that the overview of the DESNZ ERT flowed more naturally from this location in version 11.
		The DESNZ ERT overview has been separated from the overview of the NEMT.
		All reference to BEIS has been updated to DESNZ throughout this document.
		Previous reference to DESNZ issuing 'Notices of Direction that must be taken into account by the NEMT when determining the emergency strategy' has been amended to better reflect the route to the DESNZ Secretary of State issuing notices of direction through an Order In Privy Council under the Energy Act 2013.
2.8	Distribution Network Response Teams	This section has been added to complement the original definitions of the NEMT and DESNZ ERT, setting out the role of the GDNs in the formation of the NGSE strategy. This is new text for version 11 but describes existing processes and is not assessed to contain any new obligations.
2.9	Electricity System Operator	This section has been added to complement the original definitions of the NEMT and DESNZ ERT, setting out the role of the NEMT engaging with the ESO in the formation of the NGSE strategy. This is new text for version 11 describing arrangements between the two System Operators which have been endorsed by DESNZ, Ofgem and the E3C Electricity and Gas Resilience Interactions Task Group.
		There are no new obligations in this area. A more accurate overview of the interactions which occur has been articulated and these statements marked with 'Should'. The existing obligation to prevent electricity system instability has been moved here, it was marked 'must', however it is assessed that the NEMT cannot make this decision, it is for the NEC to determine to what extent electricity generation will be protected.

Section Requiring Amendment		Description of Amendment
Section Number	Section Title	
Part 3		
3.1	Information Provision	This section was section 9.1 in version 10 of E1. The location of this section has been moved, compared to the previous version 10, to aid the flow of the document. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
3.2	Development of an NGSE Strategy	This section was section 9.2 in version 10 of E1. The explanation of tolerance estimations has been simplified.
		The final paragraph in the version 10 document has not been carried across to this version 11 revision of the document. It was assessed by the review team to not contain necessary information and is not a contemporary reflection of the approach taken to maximising supplies.
3.3	NGSE Stages	This section was section 11 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
	Figure 3	This table has been updated from that provided as Figure 6 in version 10 of E1. The formatting of the table has improved.
		Reference to stages within 'Distribution Network Utilisation' have been removed as they were not comprehensive in their existing form but were more detailed than the titles provided for all of the other actions listed.
		Bold and underlined text has been deployed to highlight elements of the emergency stages which are different between the three emergency classifications.
3.4	Public Appeal	This section was section 11.1.5 in version 10 of E1. The text in this section has been modernised including clarity on which organisation undertake which activity. Further text referring to Transporters undertaking 'Poster and leaflets drops' has been removed as this is not assessed to be achievable.

Section Requiring Amendment		Description of Amendment
Section Number	Section Title	
Part 4		
4.1.1	NGSE Stage One Arrangements	This section was section 11.1 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
	Figure 4	This table has been updated from that provided as Figure 7 in version 10 of E1. The formatting of the table has improved. More accurate text to describe the direction of storage has been added to prevent any confusion.
4.1.2	Primary System Linepack and secondary system storage	This section was section 11.1.3 in version 10 of E1. This description has been ordered within this section to match the sequence of emergency actions in stage 1.
4.1.3	Emergency Specification Gas	This section was section 11.1.2B in version 10 of E1. The colloquial term has been used as a section header versus 'Gas conforming to GS(M)R Schedule 3 Part 2' to support easy reference of the document.
		This section has been updated in line with the changes to GS(M)R in April 2023 which removed Incomplete Combustion Factor as a gas quality measure, including the corresponding emergency limits.
		Actioned out of Exercise 'Celsius' (2021) was the requirement to mature the process for risk assessing the admittance of emergency specification gas. This process was drafted and tested in exercise 'Degree' (2022). With the governance of the E3 Alignment Group, the common approach to risk assessment has now been adopted by all Transporters. The final paragraph of this section confirms the steps involved in this risk assessment process. It is not assessed to contain new obligations but does confirm how existing obligations will now be more accurately met.
	Figure 5	This illustration has been updated from that provided as Figure 8 in version 10 of E1. The formatting of the illustration has improved and all reference to Incomplete Combustion Factor (ICF) has been removed.
4.1.4	Curtailment of NTS Storage Delivery	This section was section 11.1.4 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
4.2.1	Declaration of a GDE, SMB, or CTC	This section was section 11.2.1 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
		The detail of definitions of the different NGSE classifications have been removed from this section as they are comprehensively covered in section 2.4.

	Figure 6	This table has been updated from that provided as Figure 9 in version 10 of E1. The formatting of the table has been improved. The table is otherwise unchanged.
4.2.2	Directing Supplies	This section was section 11.2.2 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
4.2.3	Directing Deliver of Non-safety monitor storage gas	This section was section 11.2.3 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
		References to Section Q of UNC have been removed from this section in favour of the stronger legal basis for Gas Storage Facilities to cooperate with the NEC, as defined earlier in section 1.4.2 of E1.
4.2.4	Residual System balancer suspension	This section was section 11.2.4 in version 10 of E1, previously titled 'suspending national grid's role as residual system balancer in the on-the-day commodity market (OCM) – GDE and safety monitor breach only'. This section title has been updated to a briefer title. Minor grammatical and text changes for the purposes of accuracy, have also been made to this section.
4.2.5	Load Shedding	This section was split between section 11.2.6 and 11.2.6A in version 10 of E1. These sections have been combined. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
	Figure 7	This table has been updated from that provided as Figure 10 in version 10 of E1. The formatting of the table has been improved. The table is otherwise unchanged.
	Figure 8	This table has been updated from that provided as Figure 11 in version 10 of E1. The formatting of the table has been improved. Reference to 'Interconnectors' has been updated to 'Pipes conveying gas to another country', to match the enhanced definitions in section 1.
	Figure 9	This table has been updated from that provided as Figure 12 in version 10 of E1. The formatting of the table has been improved. The table is otherwise unchanged.
4.2.6	Priority Customers	This section was section 10 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section. Explicit reference to the Gas Transporters Standard Licence Conditions has also been added.
		In October 2022 the Secretary of State revised the criteria for Priority Customers. The Category definitions have been updated to the latest categories, in this section.
	Figure 10	This illustration has been updated from that provided as Figure 5 in version 10 of E1. The formatting of the illustration has improved. The top section of the diagram has been removed to match that this diagram exists to illustrate the order in which load is removed from the Network. It was assessed to be attempting to cover too broad a sequence of events in its previous form. Reference to 'Interconnectors' has been updated to 'Pipes conveying gas to another country', to match the enhanced definitions in section 1.

4.2.7	Arrangements for load shedding	<p>This section was section 11.2.6B in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.</p> <p>A table and associated text which was Figure 15 in version 10 of E1 has been removed. The review team assessed these contact times not to be contemporary and have the potential to dilute the impetus to remove load as soon as safely possible. Load shedding performance is measured in the annual NEC Assurance Exercise and reported in the associated post exercise report. This provides assurance of the ability of all Transporters to promptly remove load from the Network.</p>
4.2.8	Primary System Load Shedding	<p>This section was section 11.2.6C in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.</p>
		<p>The text ‘The NEMT will communicate with the affected shippers that their sites have been instructed to cease taking gas’ has been removed from this section. This is not an accurate statement as it is the responsibility of the site to inform their Shipper that they have been instructed to cease taking gas. A message is issued to all Shippers to advise that load shedding has commenced but to make any further individual contact would significantly slow down the response.</p>
		<p>Text has been added to reference the arrangement for the equitable continuity of supply of gas to Ireland and Northern Ireland during an NGSE.</p>
4.2.9	Secondary System load Shedding	<p>This section was section 11.2.6D in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.</p>
		<p>Text stating ‘the NEMT may request specific sites to be maintained or shed’ has been removed as it is assessed that the NEMT would not make such a stipulation beyond the principles of the load shedding hierarchy and priority customer arrangements</p>
4.2.10	Supplementary Systems Load Shedding	<p>This section was section 11.2.6E in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.</p>
4.2.11	Load Shedding Failure to Cease Taking gas – all transporters	<p>This section was section 11.2.6G in version 10 of E1. The two paragraphs in the original section have been reduced to just the latter as they were assessed to be duplicated. A more detailed UNC reference has also been provided. Any reference to failure to cease taking gas in other sections of the document has been removed in favour of this all-encompassing statement i.e. Primary Transporter arrangements previously reference in Section 11.2.6C of version 10 of E1.</p>
	Figure 11	<p>This illustration was previously provided as Figure 14 in version 10 of E1. No other changes have been made.</p>
4.2.14	Flowing Safety Monitor Gas	<p>This section was section 11.2.7 in version 10 of E1. No other changes have been made.</p>

4.3.1	Allocation of Available Gas	This section was section 11.3.1 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section. Statements on the DESNZ support to Gas Transporters have been enhanced for clarification.
	Figure 12	This table has been updated from that provided as Figure 15 in version 10 of E1. The formatting of the table has improved.
4.3.2	Allocation of available supplies	This section was section 11.3.2 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
		Extracts from the NEC Safety Case referring to the NEC receiving information from the DESNZ ERT where applicable, on this subject, have been added.
4.3.3	System Isolation	This section was section 11.3.3 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.
4.4.1	System Restoration	This section was section 11.4.1 and 11.4.2 in version 10 of E1. These sections have been combined and minor grammatical and text changes for the purposes of accuracy, have been made to this section.
4.4.2	Restoration procedure	This section was section 11.4.3 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section.

Section Requiring Amendment		Description of Amendment
Section Number	Section Title	
Part 5		
Part 5	Role and Responsibilities	This section was section 12 in version 10 of E1. Minor grammatical and text changes for the purposes of accuracy, have been made to this section introduction text.
5.1	NEC Responsibility	This table has been updated from that provided as section 12.1 in version 10 of E1. The formatting of the table has improved. Minor grammatical and text changes for the purposes of accuracy, have been made.
		Amendments have been made to rows describing how the stages are revoked, making it clear that a Stage 1 emergency, which does not progress further, does not require progression to stage 4.
5.2	Primary Transporter Responsibility	This table has been updated from that provided as section 12.2 in version 10 of E1. The formatting of the table has improved. Minor grammatical and text changes for the purposes of accuracy, have been made.

Glossary
The glossary has been fully revised to match terms relevant to this version of the document. Terms which are no longer referenced have been removed.

Deleted sections

Version 10 section	Reason for removal
Executive Summary	The Executive Summary which appeared in Version 10 of E1 has been removed. The review team assessed that this is not a document which can be summarised and requires a full review by all parties who have a duty to cooperate with the NEC. The detail which the Executive Summary contained is covered in the 'Forward' and 'Introduction' sections of Version 11 of E1.
Section 1.3	Version 10 contained a section titled 1.3 'The Network Emergency Management Team and the BEIS Emergency Response Team'. The information contained within this section has been separated into two separate sections in version 11 namely: 2.6 Network Emergency Management Team (NEMT) and 2.7 Department for Energy Security and Net Zero. Changes to the content of these version 11 sections are covered in the record table for Part 2 overleaf.
Section 1.4	Version 10 contained a section titled 1.4 'Supporting Documents'. The information contained within this section is assessed to be sufficiently covered in the version 11 'Forward' and 'Introduction' sections. Changes to the content of these version 11 sections are covered in the record table for Introductory pages earlier in this review record.
Section 8 Uniform Network Code	Removed in favour of more precise definitions through document.
Section 11.2.5 use of public appeal	Removed in favour of a single section on public appeals which makes clear a public appeal can be used at any stage of an NGSE.

Results of T/PM/E/1

The amendments to version 10 of E1 identified during the review were assessed to be comprehensive but non-material changes. These amendments shall be incorporated into version 11.0 which will be issued in October 2023.