Natural Gas Emergency Plan

Procedure No: AO/PR/153 Revision 5 Date: October 2022

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FOREWORD

The Commission for Regulation of Utilities (CRU) approved this plan in October 2022 for use by all those with a duty of cooperation as provided in the Gas (Interim) (Regulations) Act 2002 as amended.

The plan is revised, when necessary, by the issue of new editions. Users must ensure that they are in possession of the latest edition available on the Gas Networks Ireland website or by contacting Gas Networks Ireland (GNI).

Compliance with this document does not confer immunity from prosecution or breach of statutory or other legal obligations.

REVISION HISTORY

Version	Brief description of change	Approved
1	First issue published.	January 2009
2	First revision.	September 2011
3	Changed from 5-stage to 4-stage process in line with UK NEC procedure. Editorial updates.	January 2014
4	Changed references from Gaslink and Bord Gáis Networks to Gas Networks Ireland. Added reference to the role of Authorised Officer in accordance with SI 336 (2013). Editorial updates.	February 2016
5	Updated to reflect certain name changes, such as, CER to CRU and DCENR to DECC. Introduced Crisis Levels as per Regulation (EU) 2017/1938. Editorial updates.	October 2022

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1 EXECUTIVE SUMMARY

The Natural Gas Emergency Plan (NGEP) is the management procedure for managing a Natural Gas Emergency and provides detail on the role of the National Gas Emergency Manager (NGEM).

A Natural Gas Emergency means any event or circumstance or combination of events or circumstances which may have occurred or may occur on the gas network or on any interconnected system, including the supply, shipping, production, and storage of natural gas, which adversely affects or may adversely affect, the safety or operational integrity of the onshore gas networks or any localised part thereof or which results or may result in a risk to the safety of life, property or the environment.

A Natural Gas Emergency could be caused by:

a) Insufficient gas supplies available to the gas transportation network.

b) A critical transportation constraint - where there is sufficient gas available but due to a constraint on the transmission network the gas cannot be transported to the required location.

c) Off-specification natural gas entering the gas transportation network.

Regulation (EU) 2017/1938 sets out measures to safeguard the security of gas supply and defines three crisis levels. To provide a measured, appropriate, and coordinated response to a Natural Gas Emergency, the NGEM may declare up to four stages of a Natural Gas Emergency. These four stages sit alongside the crisis levels established under the Regulation. The NGEM may request emergency actions are completed out of sequence if deemed appropriate in the interests of health and safety. Table 1.1 shows the different classifications of a Natural Gas Emergency and the corresponding crisis level.

NATURAL GAS EMERGENCY CLASSIFICATION		
EU Regulation Crisis Level	**NGEP Emergency Stage**	**Description**
Early Warning	NGEP Emergency not declared	
Alert	1	Potential Emergency
Emergency	2	Emergency Declared and Load Shedding
	3	Allocation & Isolation
	4	Restoration

Table 1.1. Natural Gas Emergency Classification

The NGEP provides further information on these emergency stages as well as detail on the prioritisation of gas consumers and communication routes in an emergency. The plan also provides a

summary of the roles and responsibilities of the NGEM and Gas Networks Ireland (GNI) as the Transporter.

The four stages of a Natural Gas Emergency as per the NGEP are aligned with the Network Gas Supply Emergency (NGSE) stages used by the Network Emergency Coordinator (NEC) for managing natural gas emergencies on the National Transmission System (NTS) in the UK.

NOTE: In accordance with S.I. No. 697/2007 – European Communities (Security of Natural Gas Supply) Regulations 2007, the CRU has appointed GNI as the National Gas Emergency Manager (NGEM).

2 INTRODUCTION

2.1 Scope

The Natural Gas Emergency Plan (NGEP) is the industry procedure for managing a Natural Gas Emergency and provides detail on the role of the National Gas Emergency Manager (NGEM). Detailed procedures not included in the NGEP should be incorporated into the emergency plans of affected parties.

The NGEP has been prepared by Gas Networks Ireland (GNI) as designated holder of the natural gas licence for the operation of the transmission and distribution systems in accordance with the requirements of the Gas (Interim) (Regulations) Act 2002 as amended.

Regulation (EU) 2017/1938 sets out measures to safeguard the security of gas supply and defines three crisis levels. To provide a measured, appropriate, and coordinated response to an emergency, the NGEM may declare up to four stages of a Natural Gas Emergency. These four stages sit alongside the crisis levels established under the Regulation.

The NGEP does not outline how GNI as the Transporter manages the gas transportation network on a day-to-day basis. The NGEP is the procedure to be used when normal operational tools available to the Transporter have failed to address the developing emergency. The GNI Transmission Response and Repair Manual describes the operational activities for dealing with physical emergencies on the GNI network.

2.2 Purpose

The NGEP is intended to provide for the matters specified in Section 19B (3) of the Gas (Interim) (Regulations) Act 2002, including;

a) Provisions for the appointment of the National Gas Emergency Manager (NGEM).

b) Procedures for the holder of a natural gas licence for the operation of a transmission system to declare a Natural Gas Emergency.

c) The roles and responsibilities of the CRU, energy undertakings, final customers and holders of petroleum leases involved in the emergency response.

d) Measures to minimise the impact on electricity generation and on the safe, secure, reliable operation of the national electricity system in so far as that system is dependent on natural gas.

e) Measures to ensure that supplies for household customers and, in so far as it is possible, small and medium sized enterprises and other customers that cannot switch their gas consumption to other energy sources are protected in the event of a Natural Gas Emergency.

Measures taken to protect supplies of gas for household customers shall avoid undue discrimination between holders of shipping licences or between holders of supply licences.

A Natural Gas Emergency is defined in the Gas (Interim) (Regulations) Act 2002 as any event or circumstance or combination of events or circumstances which may have occurred or may occur on the gas network or on any interconnected system, including the supply, shipping, production and storage of natural gas, which adversely affects or may adversely affect, the safety or operational integrity of the onshore gas networks or any localised part thereof or which results or may result in a risk to the safety of life, property or the environment.

The monitoring and control of the specification for natural gas delivered to the network is essential to the safe and secure operation of the network. Non-compliance with the gas quality specification may

result in a Natural Gas Emergency.

NOTE: Emergencies for the purpose of this plan are natural gas emergencies. The management of electricity supply emergencies is the responsibility of EirGrid and ESB Networks, the operators of the electricity system in Ireland.

2.3 Governance

The NGEP is prepared by Gas Networks Ireland (GNI) pursuant to the direction of the Commission for Regulation of Utilities (CRU) and is subject to approval by the CRU in pursuance of its statutory functions.

The CRU is also responsible for appointment of the National Gas Emergency Manager (NGEM) in accordance with the Gas (Interim) (Regulations) Act 2002. Gas Networks Ireland is the NGEM pursuant to the appointment of the CRU on 17th December 2008.

GNI is the gas Transmission System Operator (TSO) for Ireland, with responsibility for network operation, network planning and market arrangements.

2.4 EU Regulation

Regulation (EU) 2017/1938 establishes provisions aiming to safeguard the security of gas supply in the European Union by ensuring the proper and continuous functioning of the internal market in natural gas, by allowing for exceptional measures to be implemented when the market can no longer deliver the gas supplies required. The Regulation also establishes transparent mechanisms concerning the coordination of planning for, and response to, emergencies at national, regional and EU level.

The Regulation repeals Regulation (EU) No. 994/2010.

The Commission for Regulation of Utilities (CRU) is the designated competent authority in Ireland with responsibility for the implementation of the measures set out in the Regulation.

Article 11 of the Regulation defines the following three crisis levels:

- early warning level
- alert level
- emergency level

These levels are summarised in Table 2.1 below.

Regulation (EU) 1027/1938 Article 11 – Declaration of a crisis	
Crisis Level	**Summary**
Early Warning	'where there is concrete, serious and reliable information that an event likely to result in a deterioration of gas supply may occur...'
Alert	'where a disruption of gas supply or exceptionally high gas demand results in a significant deterioration of the gas supply situation but the market is still able to manage without the need to resort to non-market-based measures…'
Emergency	'where there is exceptionally high gas demand, significant disruption to supply…gas supply insufficient to meet demand so that non-market-based measures have to be introduced…safeguarding gas supply to protected customers…'

Table 2.1 Regulation (EU) 2017/1938 Crisis Levels

NOTE: Protected customer has the meaning defined in the Regulation and is defined as follows in the CRU National Preventive Action Plan 2018 – 2022:

All NDM sector customers (residential and some small business) and, in addition, priority customers in the DM sector which are of the following categories:

- Hospitals and Nursing Homes including retirement homes;
- High Security Prisons; and
- District Heating Schemes and further categories of essential social services as determined by the CRU from time to time.

The CRU as competent authority has responsibility to inform the European Commission in the event of a crisis level being declared in accordance with the Regulation.

The CRU has designated GNI as the Crisis Manager in accordance with Article 10 of the Regulation. The Crisis Manager provides technical liaison between the NGEM, the National Emergency Coordination Group (NECG) and the European Gas Coordination Group (GCG) for the purposes of the Regulation.

2.5 Emergency Framework

The emergency framework in place following or in anticipation of a Natural Gas Emergency consists of emergency planning and operational response.

Emergency planning for the purposes of the NGEP will be undertaken by GNI in consultation with the gas industry, electricity industry, the regulator and government. Consultation is undertaken at the **Gas Electricity Emergency Planning Group (GEEP)** and presentations made to the Code Modification

Forum where necessary.

Operational response will be undertaken by the **Gas Emergency Response Team (GERT)**. This body will be chaired by the NGEM and will have a core membership of the Department of the Environment, Climate and Communications (DECC), CRU, GNI, and EirGrid. The GERT will only be established in the event of a potential or actual emergency and will support the NGEM in the implementation of the NGEP. The GERT may also be established as required to test the effectiveness of the arrangements.

The members of the GERT will interface with and provide information to the NGEM and be responsible for implementing the directions of the NGEM. The NGEM may request other agencies and individuals to participate in the GERT as the NGEM considers appropriate. The structure of the GERT is shown in Figure 1 below.

In the event of a joint electricity and gas emergency, the NGEM and the EirGrid Operations Director may, in accordance with the **Joint Energy Emergency Response Team (JEERT)** Procedure, activate a JEERT. This group is comprised of the personnel from the DECC, CRU, GNI, EirGrid and ESB Networks who normally comprise the Gas Emergency Response Team and the Electricity Emergency Response Team.

Depending on the nature and duration of the emergency it may be necessary to convene the **Energy Press Officers Network (EPON)**. The EPON will consist of communication experts from DECC, CRU, EirGrid, GNI and ESB Networks as required. The purpose of the EPON is to ensure the delivery of a consistent national media response in the event of an emergency. In the event of a Natural Gas Emergency, GNI will coordinate the national media response through the EPON. If the government's **National Emergency Coordination Group (NECG)** is convened, the NECG will manage the national media response.

The Crisis Manager will provide technical liaison between the NGEM, the NECG and the GCG, and could include the provision of technical updates to NECG press briefings.

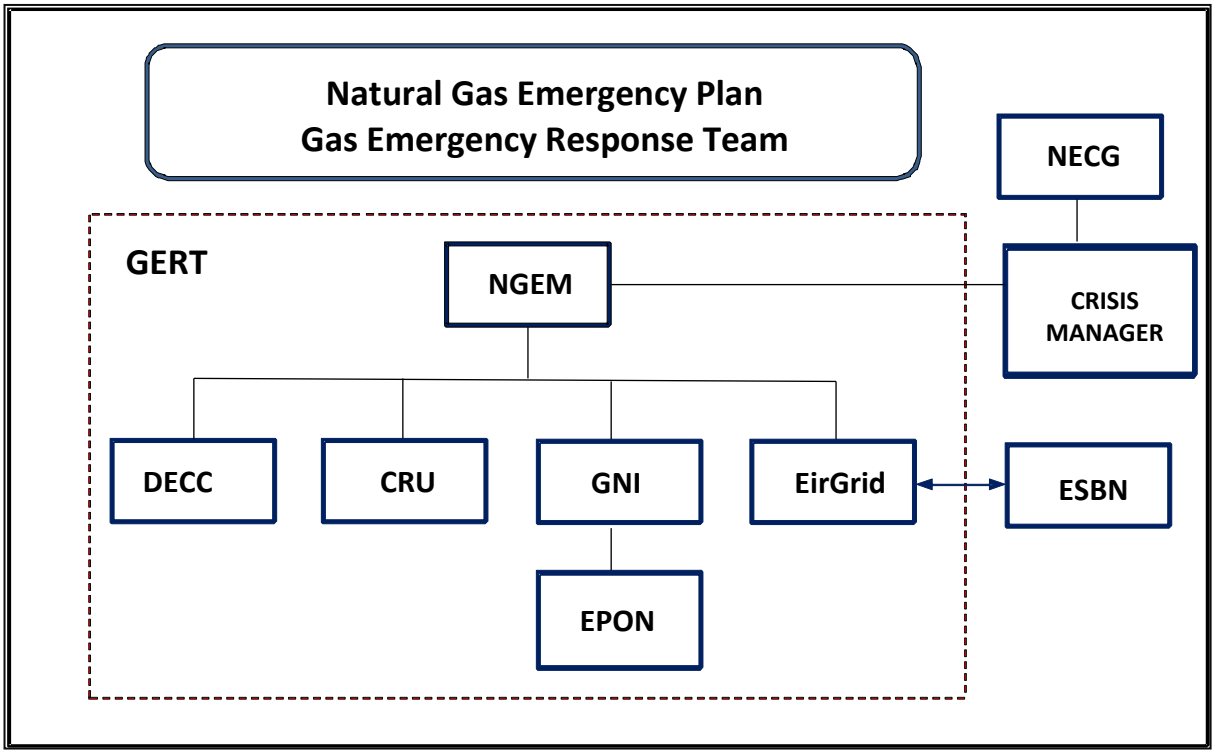

Figure 1. GERT Structure

2.6 Roles and Responsibilities

The roles and responsibilities of the primary actors in the context of the NGEP are outlined below.

Note: Please refer to Section 7 for a summary of the tasks of participants in an Emergency.

a) The **National Gas Emergency Manager (NGEM)** is appointed by the CRU and is responsible for co-ordinating the response to a Natural Gas Emergency in accordance with the NGEP. The NGEM acts as Incident Controller and leads the Gas Emergency Response Team (GERT). The NGEM will approve the declaration of a Natural Gas Emergency and its termination. The NGEM is responsible for ensuring that the NGEP has been subject to test and that it is fit for purpose. It is also the responsibility of the NGEM to ensure that any recommended improvements to the NGEP are implemented. The NGEM must ensure that the Natural Gas Emergency Plan (NGEP) is subject to annual review and with the approval of the CRU.

b) **Gas Networks Ireland (GNI)** is the gas Transmission System Operator (TSO) for Ireland with responsibility for system operation, network planning and market arrangements. The CRU has appointed GNI as the NGEM and is responsible under its licence for the development of the NGEP, which is approved by the CRU. GNI is also a member of the GERT.

GNI provides the interface with the gas industry in the Ireland including producers, storage operators, shippers and end users. It also provides the interface with the Connected System Operators (CSO's) in Northern Ireland (Mutual Energy Ltd. (MEL)) and the Isle of Man (Manx Utilities) as well as National Grid in Great Britain.

Crisis Manager: The CRU has also designated GNI as the **Crisis Manager** in accordance with Article 10 of the Regulation. The Crisis Manager will provide technical liaison between the NGEM, the NECG and the GCG and other such roles as specified in the CRU's latest National Gas Supply Emergency Plan. This role may include the provision of technical updates at NECG press briefings.

c) The **Department of the Environment, Climate and Communications (DECC)** is the Government Department responsible for the formulation of energy policy including security of supply. In the context of a gas emergency, DECC will assume the role of Lead Government Department. As Lead Department, DECC is responsible for convening and chairing the NECG, which consists of all Government Departments and the relevant agencies. The NECG will also co-ordinate the national media response and in terms of its interactions with Europe, DECC is a member of the GCG. DECC is also a member of the Gas Emergency Response Team (GERT) and it can seek the implementation of national emergency powers and other assistance if necessary.

d) The **Commission for Regulation of Utilities (CRU)** is the Regulatory Authority for energy and water in Ireland. The CRU has, *inter alia*, statutory responsibility for monitoring and ensuring security of gas and electricity supplies. The CRU has been designated by DECC as the Competent Authority under Article 3.2 of Regulation (EU) 2017/1938 to ensure the implementation of the measures set out in the Regulation and is also invited to attend the European Gas Co-ordination Group meetings. The CRU is responsible for the appointment of the NGEM and Crisis Manager and approves the NGEP. The CRU is also a member of the GERT and will provide the interface with the Regulatory Authorities in Northern Ireland and Great Britain. It will also seek the power of the High Court to ensure compliance with the directions of the NGEM if necessary. The CRU, as the designated Competent Authority, reserves the right to deviate from the outlined procedures in the event of exceptional circumstances, and shall inform the European Commission, in accordance with Article 11.4 of the Regulation.

e) **EirGrid** is Ireland's electricity TSO, and will decide during a gas supply emergency, which power stations if required should fuel switch, reduce output or come off load in the event of a gas supply emergency. EirGrid will provide the interface with ESB Networks, the electricity network operator in Ireland and System Operator Northern Ireland (SONI), the operator of the electricity system in Northern Ireland, as necessary. EirGrid is also a member of the GERT.

f) **ESB Networks** manages the operation of the electricity distribution network in Ireland and provides the interface with the distribution network operator in Northern Ireland, Northern Ireland Electricity (NIE).

The following table summarises the general roles and responsibilities of other parties that may have a role in a Natural Gas Emergency.

Organisation	Role & Responsibilities
Holders of Petroleum Lease	Responsible for the production and delivery of gas to the network and responding to requests or complying with directions from the NGEM.
Storage/LNG Operators	Responsible for the supply of gas to the network and responding to requests or complying with directions from the NGEM.
Shippers	Responsible for providing gas to suppliers and responding to requests or complying with directions from the NGEM.
Suppliers	Responsible for providing gas to consumers and responding to requests or complying with directions from the NGEM.
Consumers	Gas and electricity consumers responding to demand reduction requests from the NGEM and/or the electricity network operators.
Generators	Gas fired power stations responding to requests to reduce demand or switch fuel supplies from EirGrid under the direction of the NGEM.

Connected System Operators	Operators of gas networks connected to the GNI gas transportation system responding to directions/requests from the NGEM.
Emergency Services	Emergency Services/Local Authorities in Ireland manage the social consequences of the gas supply emergency.
GNI(UK)	Holder of gas system operator licence for the South - North Pipeline.
Supplier of last resort	Responsible for providing gas to consumers in the event of the loss of a major gas market participant and responding to requests or complying with directions from the NGEM.
Transmission System Operator (TSO)	Holder of a natural gas license for the operation of a transmission system.
Network Emergency Coordinator (NEC)	The NEC is the GB equivalent of the NGEM with responsibility for managing Network Gas Supply Emergencies (NGSE) in Great Britain. The NEC will direct the NGEM regarding gas flows at the Moffat IP in the event of an NGSE being declared. National Grid Gas is designated as the NEC.
Northern Ireland Network Emergency Coordinator (NINEC)	The NINEC is the NI equivalent of the NGEM and NEC with responsibility for managing Gas Supply Emergencies in Northern Ireland. The NGEM will direct the NINEC regarding gas flows at Twynholm for the Scotland Northern Ireland Pipeline (SNIP) and Gormanston for the South North Pipeline. The NINEC may also request the use of the SNP in the event of a localised emergency in Northern Ireland. Mutual Energy Ltd. (MEL) is designated as the NINEC.

Table 2.2 Roles & Responsibilities of relevant parties

3 THE NETWORK

The GNI Network consists of a Transmission network and a Distribution network. The Transmission network transports natural gas from the entry points at Moffat and Bellanaboy to the Distribution networks in Ireland and directly connected loads (e.g. gas-fired power generators). The GNI Transmission network also supplies natural gas to Northern Ireland and the Isle of Man.

The GNI network has two transmission entry points:

- Moffat (in Scotland)
- Bellanaboy (in Ireland)

The Moffat entry point connects the GNI network to the National Grid gas network in Great Britain and allows for the importation of natural gas to Ireland from an onshore pipeline in Scotland via two sub-sea interconnectors (IC1 and IC2). The landfall installations for the two sub-sea interconnectors entering Ireland are located at Gormanston and Loughshinny.

The Bellanaboy entry point connects the Corrib gas field to the onshore GNI network.

The Northern Ireland gas network connects to the GNI network at Tywnholm in Scotland and delivers gas to Northern Ireland via the Scotland to Northern Ireland Pipeline (SNIP). The South North Pipeline (SNP) is an onshore gas transmission pipeline from Gormanston to Northern Ireland that facilitates gas flow from Gormanston for delivery to Northern Ireland.

Gas supply to the Isle of Man is via the GNI Transmission network from IC2.

The GNI Transmission network is the main source of natural gas for the GNI Distribution networks, directly connected loads, Northern Ireland and the Isle of Man.

GNI operates both the Transmission and Distribution networks in Ireland. Operation is controlled from the GNI Grid Control Centre located at GNI Headquarters, Cork. The GNI Grid Control Centre is responsible for the continuous monitoring and control of the network ensuring its safe operation at all times. In addition, it undertakes the application of commercial activities associated with the Code of Operations.

The quality of natural gas delivered at an entry point to the GNI network is monitored by GNI to ensure compliance with the quality specification in the Code of Operations.

Currently, there is a single biomethane network entry facility injecting biomethane into the GNI Distribution network in Co. Kildare. It is envisaged that further biomethane entry facilities will become operational over the next number of years and depending on volume these may be incorporated into the emergency arrangements.

4 THE CODE OF OPERATIONS

The Code of Operations (Section H) sets out the operational arrangements in the event of an emergency.

Emergency, means a Natural Gas Emergency or any event or circumstance or combination of events or circumstances which may have occurred or may occur on the gas network or on any interconnected system, including the supply, shipping, production, and storage of natural gas, which adversely affects or may adversely affect, the safety or operational integrity of the onshore gas networks or any localised part thereof or which results or may result in a risk to the safety of life, property or the environment.

Upon the NGEM declaring the end of an emergency, normal commercial arrangements will resume at the start of the following gas day.

Natural gas delivered at an entry point to the GNI transportation system is monitored for adherence to the quality specification in the Code of Operations.

5 OPERATIONS OVERVIEW

This section is intended to provide guidance on the implementation and operation of the Natural Gas Emergency Plan. The following table indicates the relevant sections of the plan.

OPERATIONS OVERVIEW	
Incident Trigger **See Section 5.1**	Describes the triggers for declaring a potential or actual emergency and the information source.
Activation **See Section 5.2**	Describes the arrangements for the notification and declaration of a potential or actual emergency and the implementation of the plan.
Operation **See Section 5.3**	Describes the arrangements for the operation of the plan.

Table 5.1 Operations Overview

5.1 NGEP Triggers

It is the responsibility of GNI ('the Transporter') as the holder of a natural gas license for the operation of the transmission and distribution networks to declare a Natural Gas Emergency with the approval of or on the instruction of the NGEM. The main triggers for declaring an emergency are summarised in Figure 2 below.

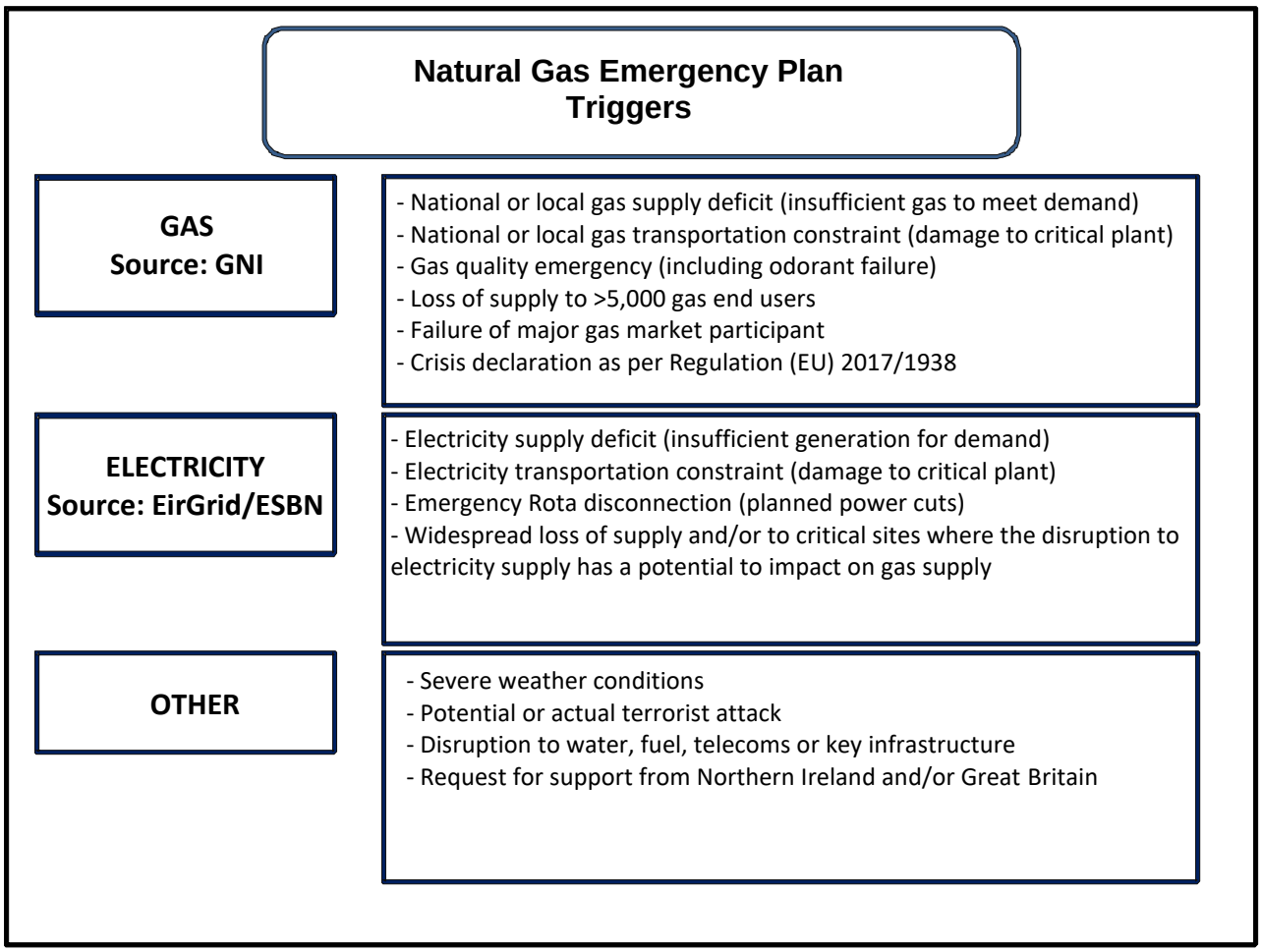

Figure 2. Natural Gas Emergency Plan Triggers

5.1.1 These triggers are intended to provide guidance to the NGEM on the declaration of a Natural Gas Emergency and thus activating the relevant provisions of the NGEP. The triggers listed may not always result in the declaration of a Natural Gas Emergency and/or activation of all the provisions of the NGEP, but the NGEM needs to be aware of possible incidents that could result in the initiation of the plan.

5.1.2 There may be other types of incident that would require an emergency response and the activation of the NGEP (in whole or in part). The NGEM has discretion to approve or require the Transporter to declare an emergency.

5.1.3 In deciding if it is appropriate to approve or instruct the declaration of a Natural Gas Emergency the NGEM may consult with other members of the GERT if there is sufficient time.

5.1.4 Without prejudice to the right of the NGEM to issue such instruction or directions as it considers appropriate, the NGEM shall on approving or instructing the declaration of a Natural Gas Emergency or as soon as practical thereafter, instruct that activities in whole or in part of such

one or more of the documents referred to in Section 7.2 as appropriate and may from time to time in the case of Natural Gas Emergency authorise or instruct the omission, implementation or cessation of any action contemplated by such procedures.

5.1.5 The CRU has designated a Supplier of Last Resort to ensure that customers are protected when the licence of one or more persons who are holders of a licence to supply natural gas is revoked or in the event that the holder of a licence to supply natural gas decides to discontinue such licensed activity. The NGEM shall exercise such of its powers and functions as may be appropriate to facilitate the Supplier of Last Resort in protecting customers in accordance with the directions of the CRU.

5.2 NGEP Activation

The arrangements for declaring a Natural Gas Emergency and for activating the NGEP are shown in Figure 3 below;

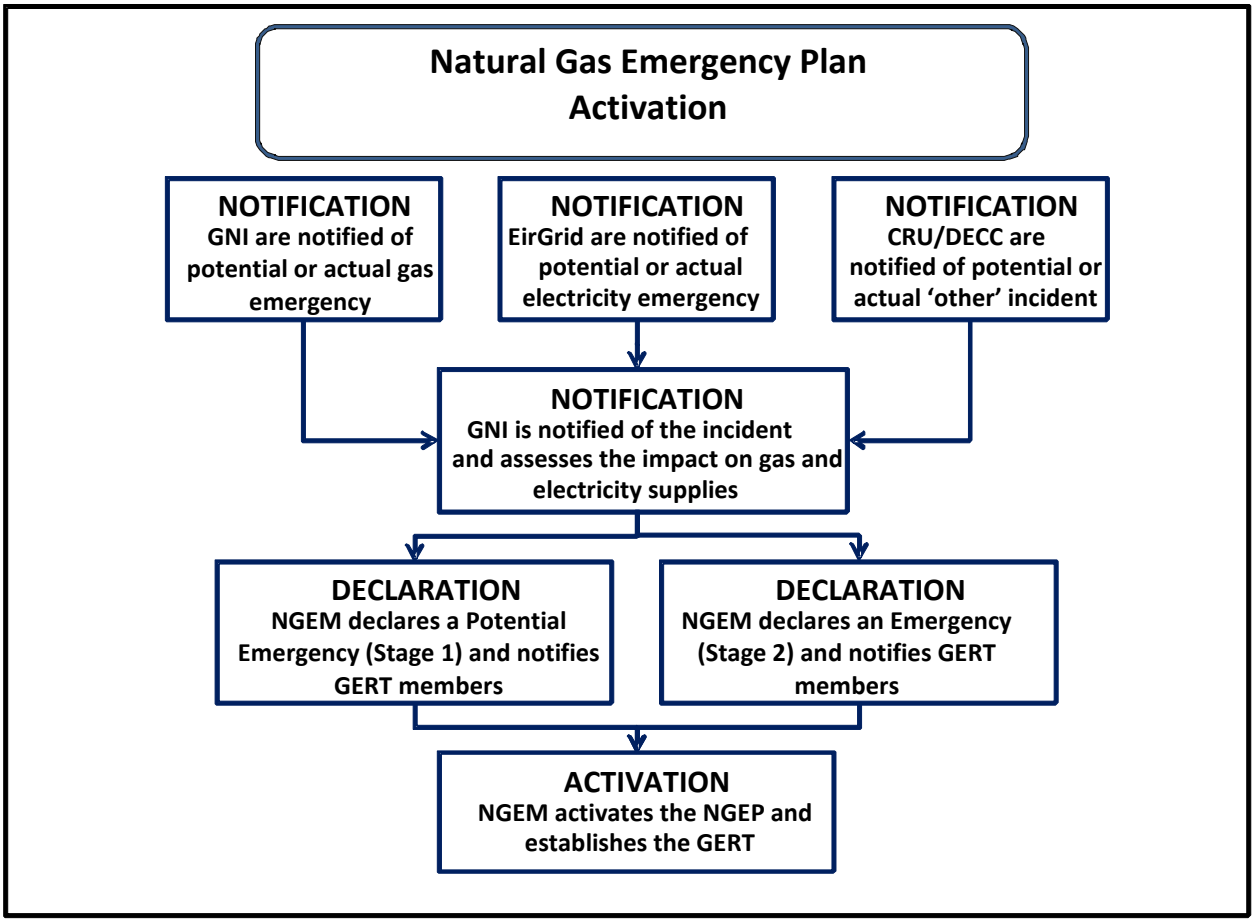

Figure 3. Natural Gas Emergency Plan Activation

5.2.1 Notification of an incident potentially impacting on gas supply or resulting in a Natural Gas Emergency can come from a number of sources depending on the nature of the emergency. In all cases the information source should initially notify the GNI Grid Control Centre located in Cork. The GNI Grid Control Centre will in turn notify the NGEM.

5.2.2 The NGEM will assess the scale of the incident against the triggers and determine if it is necessary to activate the NGEP and to establish the GERT.

5.2.3 If appropriate the NGEM will formally declare a Natural Gas Emergency using the agreed template.

5.2.4 The Transporter will provide support in issuing declarations and contacting GERT members as necessary.

5.3 The Gas Emergency Response Team (GERT)

The structure of the GERT is shown in Figure 4 below;

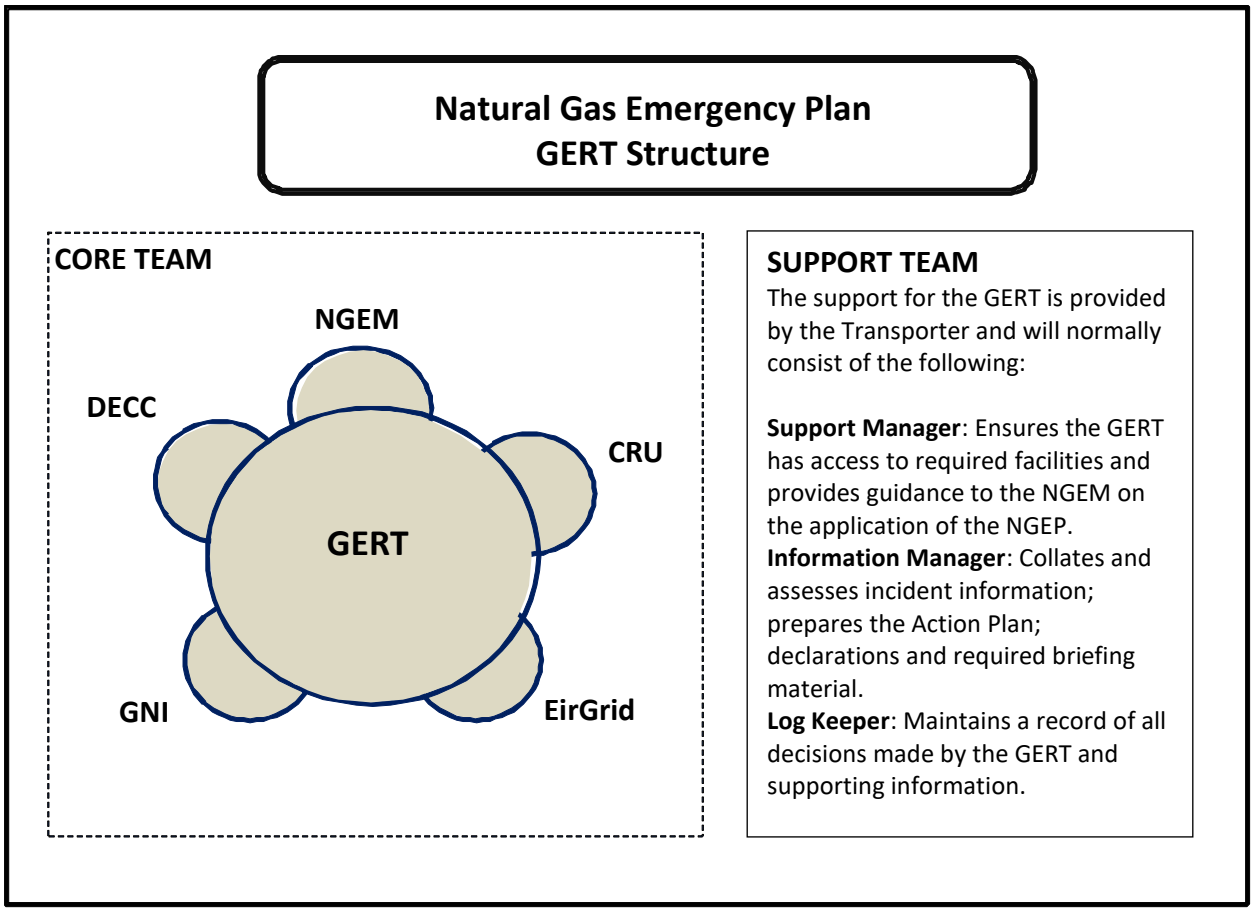

Figure 4. GERT Structure

The GERT will normally be based at the GNI Headquarters in Cork. However, the NGEM may choose to establish the team at another location depending on the nature of the emergency and the NGEM will advise team members accordingly. Communication between team members will be via conference call number, or similar, provided by GNI.

The Support Team established to assist the NGEM and the GERT will be provided by GNI and be based at GNI Headquarters in Cork or a designated backup location if necessary.

5.3.1 GERT Operation

The operation of the NGEP during an emergency is outlined in Figure 5 below and summarised as follows.

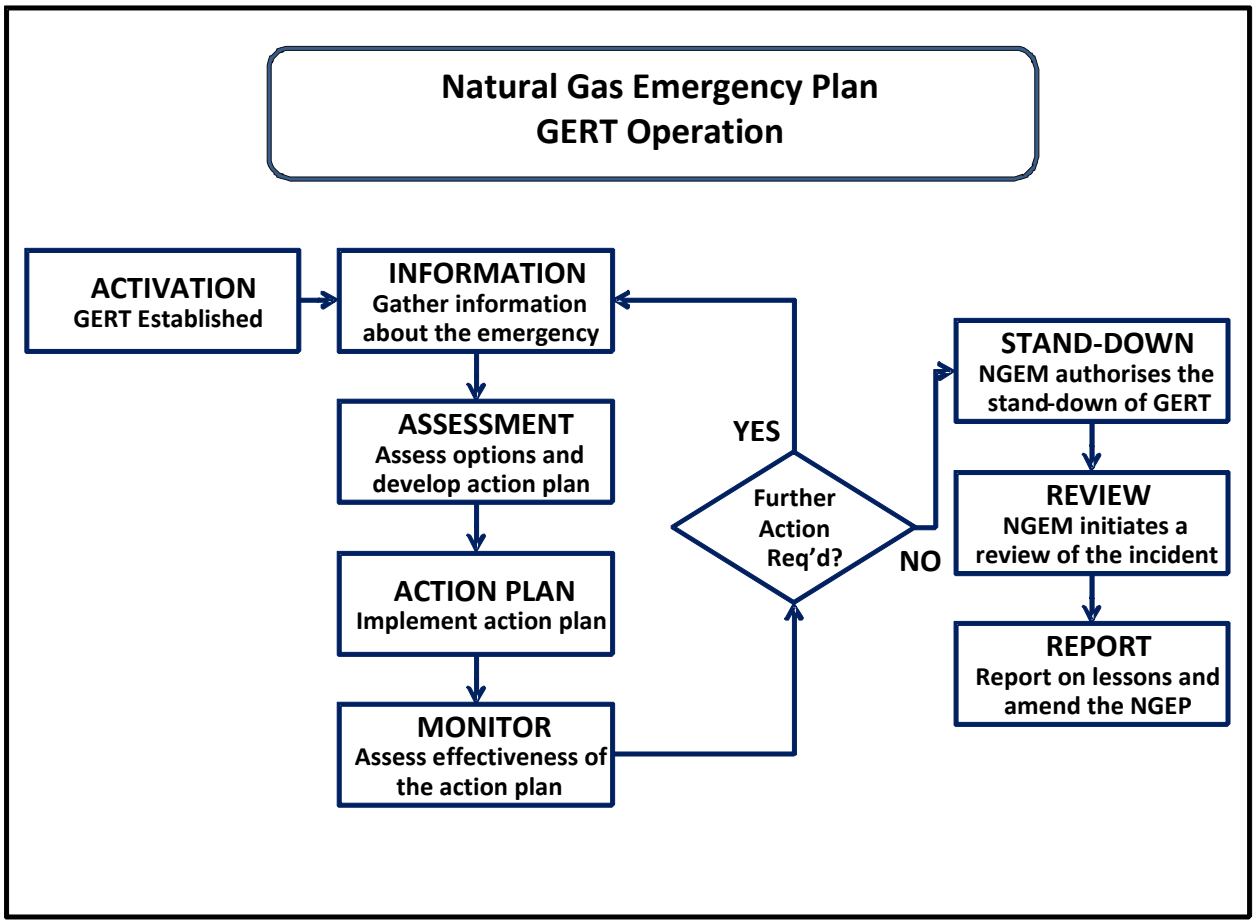

Figure 5. GERT Operation

a) Activation: the NGEM will determine the regularity of the GERT meetings depending on the nature and severity of the emergency.

b) Information/Assessment: The Support Team will gather information on the emergency, assess the extent and consequences and produce a Situation Report (SITREP).

c) Action Plan: The Support Team will prepare an Action Plan and the NGEM with the support of the GERT will review and, if appropriate, approve the Action Plan. The Action Plan will be communicated to all relevant parties by the Support Team.

d) Monitor: The Support Team will monitor the effectiveness of the Action Plan on behalf of the NGEM and will report back to the GERT as required.

e) Stand Down: if the NGEM confirms that the emergency has been resolved then he/she can authorise for the GERT to stand down. Depending on the nature of the emergency and the risk of re-occurrence the NGEM may require the team to remain available to re-convene if necessary.

f) Review: after any emergency requiring the establishment of the GERT the NGEM will arrange

for a review of the emergency to be undertaken to ensure any learning points are captured.

g) Report: a report on the emergency will be prepared and will normally be provided to the GERT by the NGEM within 4 weeks of stand down. Any recommendations made in the report will be incorporated in the NGEP at the discretion of the NGEM.

6 CONTACT INFORMATION

Contact	Type	Primary Contact	Secondary Contact
Gas Networks Ireland (GNI) Grid Control Centre	Telephone	+353 (0)21 429 8999	+353 (0)21 429 8957
	Fax	+353 (0)21 431 2513	+353 (0)21 431 1863
	Email	GniGridControl@gasnetworks.ie	
	Freephone emergency telephone number (Ireland only)	1800 545 545	

Table 6.1 GNI Contact Information

Notes:
(a) The GNI Grid Control Centre operates on a 24hr x 7-day week basis.

(b) GNI will maintain a list of contact details for GERT members and will review on a regular basis.

7 SUPPORTING INFORMATION

This section summarises the task of participants in an emergency (this list is not exhaustive).

7.1 Role Guidance Notes

7.1.1 National Gas Emergency Manager (NGEM)

NATIONAL GAS EMERGENCY MANAGER (NGEM)
The NGEM is responsible for the coordination of the response to a Natural Gas Emergency in accordance with the NGEP.
TASKS • Determine if it is necessary to declare an emergency based on information provided by GNI, EirGrid or CRU. • Declare a Natural Gas Emergency in accordance with the NGEP using the approved template. • Confirm NGEM contact information for all responders involved in the emergency. • Establish the GERT confirming membership, location, communication, and time/frequency of meetings. • Liaise with the Crisis Manager who will provide technical liaison between the NGEM, the NECG and the GCG. • In conjunction with the GERT develop a Situation Report (SITREP). • Approve the SITREP and agree the circulation list for use by the GNI Support Team. • Advise the GERT of any actions undertaken prior to the first meeting. • In conjunction with the GERT develop an Action Plan for responding to the emergency. • Approve the Action Plan and prepare the necessary directions for the GNI Support Team to issue. • Through the GERT monitor the effectiveness of the Action Plan. • Amend and reissue the SITREP and Action Plan as required during the emergency. • Ensure that a log of the emergency is maintained and that all relevant documentation is secured. • Declare the end of an emergency in accordance with the NGEP using the approved template. • Inform the Transporter of the end of the emergency and plan for a review of the incident and the preparation of a report.

7.1.2 Gas Networks Ireland (GNI) as Transporter

GAS NETWORKS IRELAND (GNI) AS TRANSPORTER
GNI ('the Transporter') is responsible for the operation of the gas transmission network and is responsible for the declaration of a natural gas emergency with the approval or by direction of the NGEM.
TASKS • Determine if it is necessary to declare an emergency based on information provided by GNI, EirGrid or CRU and notify the NGEM accordingly. • Monitor the quality specification of gas being delivered at an entry point to the GNI network an implement the relevant provisions in the event of a gas quality excursion. • Monitor the effectiveness of the implementation of the NGEP throughout the emergency. • Participate in a post emergency review highlighting issues and lessons learnt and prepare a report for the CRU (if requested). • Determine if it is appropriate to declare the end of an emergency and notify the NGEM accordingly. • Implement all directions of the NGEM.

7.1.3 Gas Networks Ireland (GNI) Operations Representative

GAS NETWORKS IRELAND (GNI) OPERATIONS REPRESENTATIVE
To provide information on the operation of the gas supply network and support the NGEM and the response team.

TASKS

- Implement NGEM directions.
- Provide information on the emergency to the NGEM including nature of the incident and the current/projected supply/demand balance.
- Ensure that the NGEM emergency declaration is sent to all emergency responders.
- Establish the Support Team for the GERT and provide suitable meeting and communications facilities.
- Provide the gas industry input into the development and amendment of the Situation Report (SITREP).
- Following approval by the NGEM ensure that the SITREP is sent to all agreed responders confirming receipt.
- Provide the gas industry input into the development and amendment of the Action Plan.
- Following approval by the NGEM ensure that all necessary directions are issued to responders confirming receipt.
- Monitor the effectiveness of Action Plan and report to the GERT as appropriate.
- At the end of the emergency issue the NGEM declaration to all responders and stand down the Support Team.
- Provide all relevant information, logs and documents to the NGEM for the post emergency review and report.

7.1.4 EirGrid Representative

EIRGRID REPRESENTATIVE
To provide relevant information and guidance on the operation of the electricity transmission system and generation capability in Ireland.
TASKS • Provide information on the impacts on the electricity industry of the emergency to the NGEM. • Confirm the contact information for the EirGrid representative and the emergency team. • Provide the electricity industry input into the development and amendment of the SITREP. • Ensure that all relevant sectors of the electricity industry are briefed on the emergency. • Provide the electricity industry input into the development and amendment of the Action Plan. • Implement NGEM directions. • Manage any required switching to alternative supplies by gas-fired power generators and/or electricity demand management. • Monitor the effectiveness of Action Plan and report to the GERT as appropriate. • Provide all relevant information, logs and documents to the NGEM for the post emergency review and report.

7.1.5 CRU Representative

CRU REPRESENTATIVE
To provide the interface with the central government response, to access emergency powers and to provide guidance to government issues.
TASKS • Determine whether a crisis level (per Regulation (EU) 2017/1938) should be declared in Ireland and declare such crisis level if necessary[1]. • Confirm the contact information for the CRU Representative and the emergency team. • Provide input into the development and amendment of the SITREP. • Provide input into the development and amendment of the Action Plan. • Advise the Crisis Manager that a crisis level has been issued and the rationale for the declaration if necessary. • Communication with the EU Commission via the GCG, that a crisis level has been declared in Ireland and rationale for the declaration, if necessary. • Inform DECC as lead Government Department that a crisis level has been declared in Ireland and rationale for the declaration, if necessary. • Implement NGEM Directions. • Monitor the effectiveness of Action Plan and report to the GERT as appropriate. • Authorise any deviations to this plan during an emergency. • Provide all relevant information, logs and documents to the NGEM for the post emergency review and report. • Appoint persons nominated by GNI to be Authorised Officers for the purposes of ensuring compliance with a direction of the NGEM per S.I. no. 336 of 2013. • Seek the power of the High Court where necessary to ensure compliance with a direction of the NGEM. • Decide whether to remove, maintain or escalate the crisis level as per the Regulation.

1 The declaration of a crisis level (i.e. early warning, alert and emergency) refers to the scenario whereby the CRU is responsible for informing the EU Commission of an emergency under the Regulation. The NGEM shall still be required to declare an emergency in accordance with the NGEP. The declaration of a crisis level by the CRU may take the form of a written notification to the EU Commission via the GCG email circulation list, or any other communication method deemed appropriate by the CRU.

7.1.6 **Crisis Manager**

CRISIS MANAGER
To provide technical liaison between the NGEM, the National Emergency Coordination Group (NECG) and the Gas Coordination Group (GCG).
TASKS • The Crisis Manager will provide technical liaison between the NGEM, the NECG and the GCG. • The role may include provision of technical updates at NECG press briefings. • Liaise with the NGEM as required.

7.1.7 Gas Emergency Response Team (GERT) Support Team

GAS EMERGENCY RESPONSE TEAM (GERT) SUPPORT TEAM
To ensure that the GERT has access to all required facilities and to provide guidance and assistance to the NGEM on the application of the plan.
The GERT Support Team is provided by GNI and has three key roles. • Support Manager -Provide leadership for the support team. -Ensure that the GERT has all required office facilities. -Ensure that the GERT has all required communications. -Provide guidance to the NGEM on the application of the plan. • Information Manager -Gather and assess all information from responders. -Develop and maintain the SITREP. -Develop and maintain the Action Plan. -Issue SITREPS and NGEM Directions. • Log Keeper -Maintain an emergency log recording all relevant information and actions. -Hold copies of all relevant documentation and Directions, -Maintain contact information for all Response Team members. The NGEM may request additional specialist roles in the support team, including; • Legal Representation. • Press Office Representation (coordinating with the EPON if established). • Technical Representation.

7.2 Related Documentation

A number of related documents have been developed by the Transporter for the management of natural gas emergencies as per Table 7.1 below. The joint procedures between GNI and National Grid, GNI and EirGrid, and GNI and MEL are agreed between the respective parties.

Procedure	Description	Owner
National Grid/GNI Joint Protocol for Load Shedding in Gas Supply Emergencies	Describes the load shedding arrangements in place between National Grid and GNI in the event of a Natural Gas Emergency	GNI/National Grid
GNI/EirGrid Joint Gas & Electricity Emergency Arrangements	Describes the arrangements for GNI and EirGrid to manage the consequences of a gas emergency on electricity supply.	GNI/EirGrid
GNI Distribution Emergency Response Plan	Describes the arrangements for GNI to manage emergencies on the Distribution network.	GNI
Joint Procedure for emergency use of the South North Pipeline (SNP).	Describes the steps for the emergency use of the South North Pipeline (SNP) in the event of a natural gas emergency in Northern Ireland.	GNI(UK)/MEL
NGEM Emergency Declaration Template	Template generated by GNI to advise status of Emergency.	GNI
JEERT Procedure	Procedure for activation and running of a JEERT in the event of a joint gas and electricity emergency.	CRU

Table 7.1 Related Documents

8 NATURAL GAS EMERGENCY ARRANGEMENTS

These arrangements summarise the procedure for managing natural gas emergencies in Ireland.

The NGEM is responsible for the following actions;

a) The co-ordination of the response to an emergency in accordance with the NGEP.

b) The approval of the declaration of an emergency by the Transporter.

c) The co-ordination of an escalation of the emergency.

d) The instruction of the holder of a natural gas licence for the operation of a transmission system or distribution system with respect to an emergency (including the end of such emergency).

The Transporter will declare a potential or actual Natural Gas Emergency on or affecting the network (in whole or in part) with the approval of the NGEM. The NGEM will coordinate all parties affected by the Natural Gas Emergency.

8.1 Natural Gas Emergency Classification

EU Regulation 2017/1938 sets out measures to safeguard the security of gas supply and defines three crisis levels. To provide a measured, appropriate, and coordinated response to an emergency, the NGEM may declare up to four stages of a Natural Gas Emergency. These four stages sit alongside the crisis levels established under the Regulation. Table 8.1 shows the different classifications of a Natural Gas Emergency and the corresponding crisis level.

The same stages apply for all types of emergency. Although the Stages run 1 to 4 the NGEM may declare the stages sequentially or simultaneously to address the supply/demand imbalance (however nothing in this arrangement shall limit or inhibit the NGEM in issuing such directions as the NGEM considers appropriate from time to time). As the implemented measures take effect the NGEM may revoke some or all the stages until the emergency is declared over.

The final stage involves restoring gas supplies to all users in a safe manner once the emergency has been declared to be ended by the Transporter.

NATURAL GAS EMERGENCY CLASSIFICATION			
EU Regulation Crisis Level	**NGEP Emergency Stage**	**Description**	**Action**
Early Warning	None	Natural Gas Emergency not yet declared	• Notify and liaise with gas industry stakeholders. • Convene GERT. • Increase system line-pack. • Cease non-essential maintenance.
Alert	1	Potential Emergency	• Voluntary load reduction in power generation. • Voluntary increase in indigenous gas supplies. • Interrupt injection into storage (if present). • Public Appeal. • Consider use of system line-pack. • Request withdrawal from storage (if present).
Emergency	2	Emergency Declared and Load Shedding	• Maximise indigenous gas production. • Public Appeal. • Initiate Firm Load Shedding of LDM Sector. • Maximise use of system line-pack and storage (if present). • Progressive Firm Load Shedding of DM and NDM Sectors.
	3	Allocation & Isolation	• Allocation and Isolation of remaining gas supply.
	4	Restoration	• Restoration of supplies and revoke emergency steps.

Table 8.1 Natural Gas Emergency Classification

8.2 Provision of Information

The NGEM requires information from all Shippers/Producers/Storage Operators to enable the best utilisation of all facilities in the event of a potential or actual Natural Gas Emergency; this may include the following;

a) Forecast deliveries at all entry points.

b) Maximum available deliveries at all entry points.

c) Forecast deliveries from storage facilities (if present); and

d) Maximum available deliveries from all storage facilities (if present).

It is the responsibility of the Shippers/Producers/Storage Operators to provide such information to the NGEM when requested.

For the duration of when an early warning, alert or emergency has been declared, natural gas undertakings concerned shall make available, on a daily basis, in particular the following information

to the NGEM, who must provide it to the CRU:

(a) the daily gas demand and gas supply forecasts for the following three days, in million cubic meters per day (mcm/d);
(b) the daily flow of gas at all cross-border entry and exit points as well as at all points connecting a production facility, a storage facility or an LNG terminal to the network, in million cubic meters per day (mcm/d);
(c) the period, expressed in days, for which it is expected that supply of gas to protected customers can be ensured.

8.3 Key Interfaces

The key interfaces with the NGEM and high-level data flows between the NGEM and those parties who may be affected by a Natural Gas Emergency are described below.

a) Shippers: Shipping gas to/from entry points to end users, as defined in the Code of Operations.

b) Connected System Operators (CSOs): Indigenous gas producers, storage operators and operators of connected gas transmission systems, e.g.:

- Vermilion Energy (VEPIL) – the operator at the Bellanaboy entry point.
- Mutual Energy Ltd. (MEL) – the SNIP Transporter in Northern Ireland.

c) NEC: The Network Emergency Coordinator in Great Britain. The role of the NEC is to manage a Natural Gas Supply Emergency (NGSE) in Great Britain in accordance with its approved procedure (T/PM/E/1). The role of the NEC is fulfilled by National Grid.

d) National Grid: the gas transmission system (NTS) operator in Great Britain

e) NINEC: The Northern Ireland Network Emergency Coordinator. The role of the NINEC is to manage a Natural Gas Supply Emergency in Northern Ireland in accordance with its approved procedure (NINEC Safety Case). The duty holder of the NINEC Safety Case is Mutual Energy Ltd. (MEL).

f) Manx Utilities operating in the Isle of Man

g) End users at LDM Offtakes and DM Offtakes, including power generating stations, Industrial & Commercial customers who have a contract with Shippers for gas supply.

h) EirGrid: the electricity transmission system operator in Ireland.

The relationships are shown in Figure 6 below.

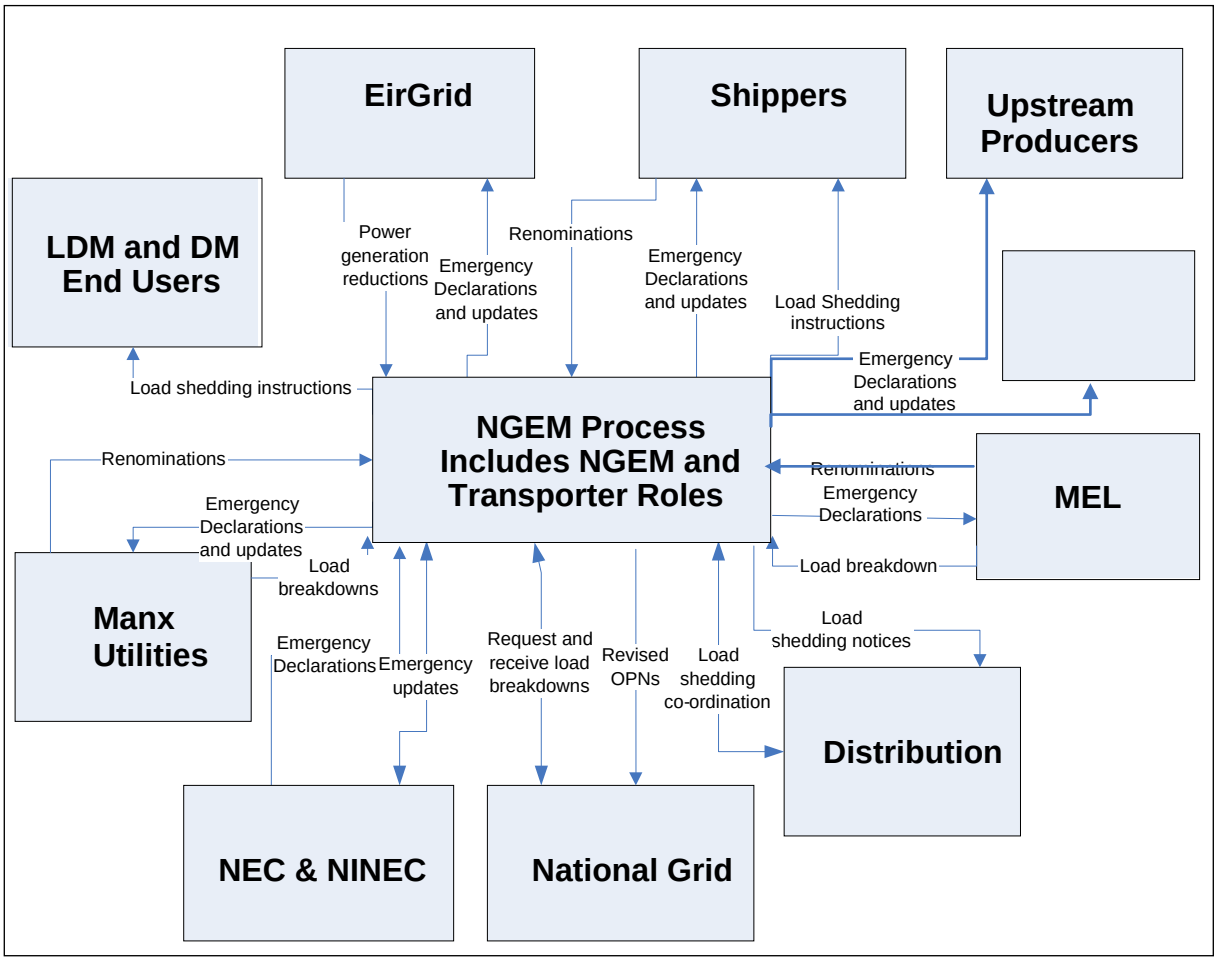

Figure 6. Key Interfaces with the NGEM

At a high level, the following is anticipated:

- In the event of a Natural Gas Emergency or in order to avert a Natural Gas Emergency affecting the Moffat Interconnection Point (IP), GNI and National Grid will coordinate all activities.
- If a Natural Gas Emergency is declared and affects the Moffat IP, the NEC (Network Emergency Co-ordinator in Great Britain) shall notify the NGEM of emergency details.
- The NGEM shall issue or authorise the issue of all the notifications of an emergency, including details of likely duration etc. to GNI and all other affected parties e.g. Shippers, CSOs, EirGrid etc.
- However, GNI may issue all instructions to Shippers/CSOs/EirGrid on behalf of the NGEM regarding maximising indigenous gas production, firm load shedding, load category breakdowns (described in 9.2.3) etc. All communications will be issued using approved templates.
- GNI and National Grid will communicate (in the case of a gas supply emergency affecting the Moffat IP) on load category breakdowns and the required gas demand reductions.

It should be noted, for natural gas emergencies affecting the Moffat interconnection point (IP), GNI(UK) is considered by the NGEM as the primary Transporter and MEL is considered as the secondary Transporter.

Similarly, in Northern Ireland, GNI(UK) as Transporter on the North West Pipeline, is considered a secondary Transporter to MEL.

For natural gas emergencies affecting the Moffat IP, GNI(UK) acting on behalf of the NGEM, will communicate directly with MEL and MEL will manage the emergency on behalf of its downstream (secondary) Transporters, including GNI(UK).

8.4 Initiation of NGEM Process

Stage 1 of the gas emergency response begins when the Transporter has established that it is not possible to maintain an acceptable balance between supply and demand or there is insufficient gas leading to the possibility of a Natural Gas Emergency developing.

9 NATURAL GAS EMERGENCY PROCEDURE

9.1 Early Warning Crisis Level

An Early Warning may be declared under Regulation (EU) 2017/1938, where there is concrete, serious and reliable information that an event likely to result in a deterioration of gas supply may occur. The declaration of an Early Warning does not imply that a Natural Gas Emergency needs to be declared. In the event of an Early Warning being declared, the CRU, as competent authority, will notify the European Commission. Table 9.1 outlines the actions available to the Transporter when an Early Warning has been declared.

NATURAL GAS EMERGENCY CLASSIFICATION		
EU Regulation Crisis Level	**NGEP Stage**	**Action**
Early Warning	None	• Notify and liaise with gas industry stakeholders. • Convene GERT. • Increase system line-pack. • Cease non-essential maintenance.

Table 9.1 Early Warning Actions

9.2 Alert Crisis Level / Stage 1: Potential Natural Gas Emergency

An Alert Crisis Level may be declared under Regulation (EU) 2017/1938 where a disruption of gas supply or exceptionally high gas demand results in a significant deterioration of the gas supply situation, but the market is still able to manage without the need to resort to non-market-based measures.

A Stage 1 Potential Natural Gas Emergency will be declared by the NGEM in the event of an Alert Crisis Level being declared.

Table 9.2 outlines the actions available to the Transporter in the event a Stage 1 Potential Natural Gas Emergency has been declared by the NGEM. A potential Natural Gas Emergency exists where information available to the Transporter indicates that using Stage 1 actions, there is sufficient time and sufficient gas available for the gas transportation network to be rebalanced and the balance maintained without recourse to Stage 2 actions. The Stage 1 actions are not required to be taken in the order listed and may be taken simultaneously if deemed necessary by the NGEM.

NATURAL GAS EMERGENCY CLASSIFICATION		
EU Regulation Crisis Level	**NGEP Stage**	**Action**
Alert	Stage 1. Potential	• Voluntary load reduction in power generation. • Voluntary increase in indigenous gas supplies. • Interrupt injection into storage (if present). • Use of system line-pack. • Request withdrawal from storage (if present). • Public Appeal

Table 9.2 Stage 1 Actions

GNI in consultation with the NGEM will set out a methodology by which the gas transportation network can be rebalanced. This will include a combination of voluntary load reduction in the power generation sector and maximising indigenous gas supplies on a voluntary basis. The use of balancing actions may also be considered; their use being dependant on the expected duration of the potential emergency. Injection into storage, if present, will be suspended.

Voluntary load reduction in the power generation sector will be requested and coordinated via EirGrid. Voluntary load reduction in Northern Ireland and Isle of Man will also be requested from Mutual Energy Ltd. (MEL) and Manx Utilities respectively.

Voluntary increases in indigenous gas supplies will be requested of Shippers/Suppliers and copied to producers.

GNI and the NGEM will monitor the effects of actions taken in Stage 1 and based on the results decide whether a potential or an actual emergency exists before moving to Stage 2.

If a potential emergency exists, the Transporter will issue on behalf of the NGEM the following notices which will require remedial action by a specified time. The parties issued with the notices are expected to revert to the Transporter with their response.

- NGEM: **Instruction** to Shippers for:
  - Interruption of injection to storage facilities;
  - Voluntary increases to indigenous supplies including withdrawal from storage; and
  - Notification of voluntary reductions in the power generation sector.

- NGEM: **Notification** to upstream producers for:
  - Interruption of withdrawal to storage facilities; and
  - Request for voluntary increases to indigenous supplies including withdrawal from storage.

- NGEM: **Request** to Isle of Man and Northern Ireland for:
  - Voluntary reductions in the power generation sector.

- NGEM**: Instruction** to EirGrid to:
  - Co-ordinate voluntary reductions in the power generation sector.

If as a result of Stage 1 actions the supply/demand is rebalanced, the NGEM will move to Stage 4 Restoration. If the system cannot be rebalanced based on the actions taken in Stage 1, the NGEM will move to Stage 2 Emergency Declaration and Firm Load Shedding.

9.2.1 GAS QUALITY

Natural gas delivered at a Transmission entry point to the GNI transportation network is monitored for adherence to the quality specification in the Code of Operations. The monitoring and control of the specification of natural gas delivered is essential to the safe and secure operation of the network and non-compliance with the quality specification may result in a Natural Gas Emergency bring declared by the NGEM.

The NGEM may, where it is necessary, to prevent, or delay the occurrence of a Natural Gas Emergency (including a potential emergency) or a local gas supply emergency, authorise gas not conforming to the gas quality specification to be conveyed in the network if the gas conforms to the requirements of Table 9.3 below. The UK Gas Safety (Management) Regulations (GS(M)R) Part II of Schedule 3 provides the basis for this emergency quality specification.

EMERGENCY GAS QUALITY SPECIFICATION [a]	
Wobbe Number (WN)	≥ 46.5MJ/m^3 and ≤ 52.85MJ/m^3
Incomplete Combustion Factor (ICF)[b]	≤ 1.49

Table 9.3 Emergency Gas Quality Specification

Notes:
(a) In all other respects' gas quality must conform to the quality specification in the Code of Operations.

(b) ICF is defined in the UK Gas Safety (Management) Regulations (GS (M)R) 1996.

This provision exists because there may be circumstances in which the introduction of gas conforming to this emergency quality specification is less undesirable in safety terms than the complete loss of gas supply.

Authorisation for admission of gas with this emergency quality specification shall be agreed with the GERT. This authorisation will be withdrawn once an equivalent amount of the approved gas quality specification gas becomes available or if the emergency has been averted. The Transporter will complete a risk assessment to establish an acceptable duration for which gas conforming to this specification can be admitted into the network.

9.3 Emergency Crisis Level / Stage 2: Emergency Declaration & Firm Load Shedding

If the actions available outlined in Section 9.2 are insufficient to address the supply/demand imbalance or the transportation constraint the NGEM will consider declaring a Natural Gas Emergency.

An Emergency Crisis Level may be declared under Regulation (EU) 2017/1938 where there is exceptionally high gas demand, significant disruption to supply, gas supply insufficient to meet demand so that non-market-based measures must be introduced in order to safeguard gas supply to protected customers.

A Stage 2 Natural Gas Emergency will be declared by the NGEM in the event of an Emergency Crisis Level being declared.

Upon declaration of the Natural Gas Emergency, the NGEM will categorise the type of emergency that exists.

There are three types of Natural Gas Emergency:

a) Gas supply deficit (national or local) where there is insufficient gas supply into the network to meet demand. This is a situation which has resulted in, or could result in, loss of pressure in the gas transportation network.

b) Transportation constraint (national or local) where there is a failure of critical plant resulting in, or could result in, loss of pressure in the gas transportation network.

c) Gas quality where the gas supplied to the gas transportation network is off-specification and could present a potential or actual risk to public safety.

Table 9.4 below outlines the actions available to the Transporter at Stage 2.

NATURAL GAS EMERGENCY CLASSIFICATION		
EU Regulation Crisis Level	**NGEP Stage**	**Action**
Emergency	Stage 2. Declaration & Load Shedding	• Maximise indigenous gas production. • Initiate Firm Load Shedding of LDM Sector. • Maximise use of network linepack and storage (if present). • Public Appeal. • Progressive Firm Load Shedding of DM and NDM Sectors.

Table 9.4 Stage 2 Actions

9.3.1 Maximise Indigenous Gas Production & Storage Withdrawal

If it has been identified that there are additional indigenous gas supplies available, then the Transporter will request that Shippers source as much gas as they can for delivery at the relevant entry point. Any issues with this request will be communicated to the GERT if required.

In the case of storage gas, the Transporter will communicate directly with the storage operator for the delivery of this gas at the relevant entry point. It is noted that there is currently no gas storage in Ireland.

9.3.2 Public Appeal

If approved by the NGEM the Transporter may instigate the use of public appeal. For a potential supply/demand imbalance or where the emergency is likely to impact electricity supplies and gas supplies to domestic customers the public appeal process will be coordinated centrally through the GERT. The GERT will deliver these centrally coordinated appeals via the EPON.

9.3.3 Firm Load Shedding

If the network cannot be rebalanced based on the actions taken, the NGEM will authorise progress to firm load shedding. Firm load shedding is the procedure used by the Transporter to secure a graduated and controlled reduction in firm demand to keep the system securely pressurised. This procedure is put into effect by the NGEM directing certain end users to reduce or cease their consumption of gas.

Firm load shedding is divided into tranches of increasing severity and effect. This enables the NGEM to have a measure of control in matching the load shedding to the amount of gas required to rebalance the network or maintain the balance in the network. The quantity of firm load shedding required to rebalance the network will be determined by the NGEM in consultation with the Transporter.

The NGEM may authorise the use of simultaneous firm load shedding if it would prevent an emergency occurring or further developing.

The Transporter has categorised all end users into one of the following 3 categories as per the Code of Operations:

- Large Daily Metered (LDM)
- Daily Metered (DM)
- Non-Daily Metered (NDM)

The NGEM has identified three tranches for firm load shedding of LDM's in Stage 2:

- LDM 1: Any LDM Offtake which has an Annual Consumption greater than 1,500,000MWh.
- LDM 2: Any LDM Offtake which has an Annual Consumption greater than 260,000MWh and less than or equal to 1,500,000MWh.
- LDM 3: Any LDM Offtake which has an Annual Consumption less than or equal to 260,000MWh.

The NGEM has identified a further three tranches of firm load shedding for the DM and NDM sectors, after all the LDM load has been reduced to zero:

- Any DM Offtake.
- NDM 1: NDM supply points at which gas is off taken from the Distribution network for consumption by non-domestic customers.
- NDM 2: NDM supply points at which gas is off taken from the Distribution network for consumption by household customers and priority customers.

The following Figure 7 shows the order of demand reduction in the event of a Natural Gas Emergency.

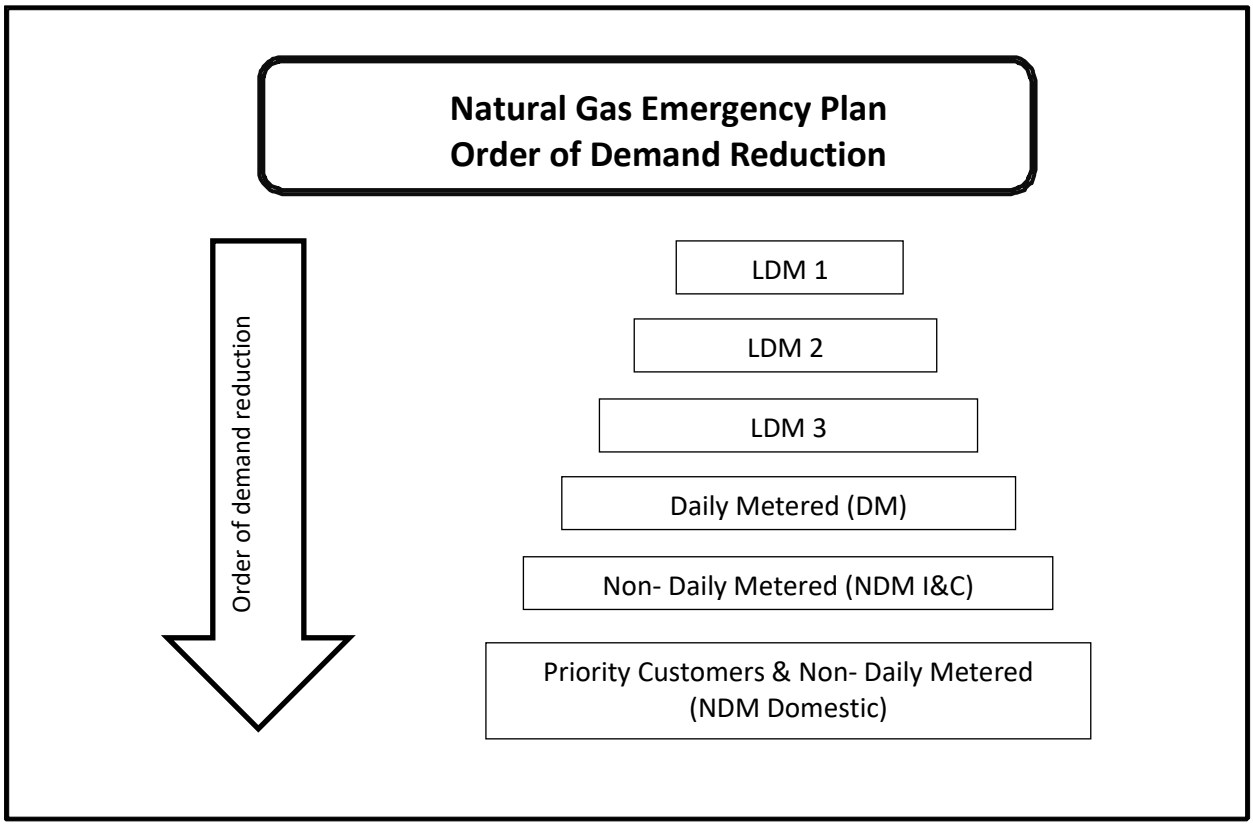

Figure 7 Order of Demand Reduction

9.3.4 LDM Load Shedding

The Transporter will initiate LDM load shedding on behalf of the NGEM by issuing the following emergency instructions:

(a) Instruction to EirGrid specifying the reduced gas demand figure for the gas-fired power generation sector. EirGrid will manage the electricity generation network to achieve this demand reduction by deciding which power stations will be fuel switched or load shed.

(b) Instruction to Manx Utilities (Isle of Man) and MEL (Northern Ireland) specifying the reduced gas demand figure for their respective systems.

(c) Instruction to Shippers with gas-fired power generation end users to re-nominate based on power station requirements as coordinated by EirGrid.

If the supply/demand balance continues to deteriorate the Transporter will then initiate load shedding of non-power generation LDM end users. LDM load shedding will normally be in the order of load size with the largest users of gas first, however, there may be circumstances where this is not desirable. This may be through the requirement of maintaining supplies to large priority customers or under direction from the GERT to maintain supplies to specific consumers e.g., to maintain supplies to some electricity producers.

The Transporter will contact each LDM end user on behalf of the NGEM and instruct them to cease consuming gas. The relevant Shippers will be instructed to renominate against those LDMs which have been identified for load shedding. This instruction will specify the reduced gas demand figure for the end user. If the LDM end user fails to take action to cooperate with the direction of the NGEM to cease using gas the Transporter may act to physically isolate gas supply to the end user.

NOTE: As per Regulation (EU) 2017/1938 Article 11.7, the gas supply to certain critical gas-fired

power plants may be prioritised over the gas supply to certain categories of protected customer. A decision to make such a prioritisation will be made by the GERT.

9.3.5 DM Load Shedding

If necessary, the Transporter will initiate load shedding of the DM sector by issuing the following emergency instructions. In the event of DM load shedding, all DM sites will be shed.

(a) Instruction to DM end users affected by the DM load shedding, to cease gas consumption as a matter of priority.

(b) Instruction to Shippers to renominate against their DM portfolio and make appropriate re-nominations based on specific gas demand reduction figure.

If the DM end user fails to take action to cooperate with the direction of the NGEM to cease using gas the Transporter may act to physically isolate gas supply to the end user.

The NGEM and the Transporter monitors the effect of the measures taken. If the supply/demand imbalance is improving the NGEM will authorise the progression of the emergency to Stage 4 Restoration as per Section 9.5.

9.3.6 NDM Load Shedding

If necessary, the Transporter will initiate load shedding of the NDM industrial and commercial sector. This notice will be issued to Shippers and Suppliers, who in turn will be obliged to contact their NDM I/C end users.

The NGEM and the Transporter will monitor the effect of the measures taken. If the supply/demand imbalance is improving the NGEM will authorise the progression of the emergency to Restoration Stage.

If the supply/demand imbalance is deteriorating the NGEM will escalate the emergency to Stage 3 Allocation and Isolation as per Section 9.4.

9.3.7 Contact Arrangements

The Transporter holds a register of the emergency contact details of all Shippers and Suppliers and their respective LDM and DM end users. It is the responsibility of all Shippers to ensure that that the contact details of their LDM and DM end users are regularly updated and provided to the Transporter in accordance with Part H of the Code of Operations.

Shippers have the responsibility of ensuring that the Transporter is aware of any priority customers in their portfolio (e.g. hospitals).

If it is necessary to implement firm load shedding of the NDM domestic sector this will be done using public appeals as per 9.3.2.

It is the responsibility of all Shippers and Suppliers to regularly advise the Transporter of the breakdown of NDM domestic and NDM non-domestic end users.

9.4 Emergency Crisis Level / Stage 3: Allocation and Isolation

If the firm load shedding actions available to the NGEM are insufficient to address the supply/demand imbalance or the transportation constraint, the NGEM will consider authorising isolation of specific network sectors when there is no action available to the Transporter that could be taken in the time available to rebalance the network.

NATURAL GAS EMERGENCY CLASSIFICATION		
EU Regulation Crisis Level	**NGEP Stage**	**Action**
Emergency	Stage 3. Allocation & Isolation	• Allocation and Isolation of remaining gas supply

Table 9.4 Stage 3 Actions

If insufficient supplies are available to the network, the Transporter in consultation with the NGEM will allocate gas to specific network sectors and isolation of specific network sectors may be required.

To support this process the NGEM may make a request to the GERT to provide additional resources to the Transporter in the event of individual domestic customers requiring isolation from the network.

9.4.1 ALLOCATION

If insufficient gas is available to supply the network or parts of the network as applicable, even with firm load shedding, the NGEM will allocate the available gas and may instruct the Transporter to physically restrict the offtake of gas where necessary. The NGEM's arrangements for allocation of gas gives priority to maintaining gas supplies to priority customers and domestic customers.

The GERT may interface with the NGEM and Transporter on the action to take if the continuation of supply to priority customers would result in the loss of supply to domestic customers.

The Transporter in consultation with the NGEM will issue gas allocations to the Connected System Operators (CSO's) in Northern Ireland and Isle of Man (MEL and Manx Utilities respectively). The CSO's are responsible for maintaining the supply/demand imbalance within their own networks.

The Transporters criteria for allocating gas are:

a) All non-priority and non-domestic end users are directed to stop using gas completely as directed by the NGEM and copied to Shippers. These offtakes may be physically isolated if required.

b) Available gas is allocated to each Distribution network to supply domestic end users so that system pressures can be maintained for as long as possible.

c) The Transporter will authorise the allocation of gas to the Distribution network.

d) The Transporter is responsible for maintaining the supply/demand balance within the Distribution networks.

e) The NGEM and the Transporter will monitor the results of the actions taken through the allocation process. If a specific section of the Distribution network is experiencing difficulty in maintaining pressures, the NGEM may review the allocation of gas so the supply/demand imbalance can be redressed.

9.4.2 ISOLATION

If a Distribution network has not been allocated sufficient gas the Transporter will take steps to isolate parts of the network to match demand with available supply. The Transporter will use its own operational procedures for system isolation.

The NGEM and the Transporter will monitor the effects of the actions taken and may authorise further reductions in gas allocation until a supply/demand balance is achieved on the network.

If the supply/demand balance is deteriorating, the NGEM will direct the Transporter to reduce gas allocation until the Transporters Transmission system can maintain a supply/demand balance. This may require all Distribution networks to be isolated.

If the supply/demand balance is improving the NGEM must authorise the Transporter to progress to Restoration.

9.5 Emergency Crisis Level / Stage 4: Restoration

When sufficient gas supplies are available to restore pressure to isolated systems or revoke emergency actions taken the NGEM must initiate the restoration process and on completion, declare the end of the Natural Gas Emergency.

NATURAL GAS EMERGENCY CLASSIFICATION		
EU Regulation Crisis Level	**NGEP Stage**	**Action**
Emergency	Stage 4. Restoration	• Restoration of supplies and revoke emergency steps

Table 9.5 Stage 4 Actions

When the supply/demand balance has returned to normal the NGEM will notify all affected Shippers, Connected System Operators and EirGrid of the revocation of the emergency. The market will be reinstated at the start of the next gas day and in accordance with the Code of Operations.

The following principles will be applied to the process of restoration after isolation:

a) No restoration of supply to end users will take place until and unless the security of the network is assured.

b) Restoration of supply to end users will be matched to available network supply.

c) Restoration of supply to the Distribution network will be coordinated by the Transporter in consultation with the NGEM. Restoration of supply to the Distribution network may take a long time due to the complexity of the system and the large number of customers involved. Where there is sufficient quantity of gas available, the supplies to industrial/commercial customers

supplied from the Transmission network may be restored before domestic customers.

10 AUTHORISED OFFICERS

The CRU shall appoint persons nominated by Gas Networks Ireland to be Authorised Officers for the purposes of taking any action necessary to ensure compliance with a direction given by the NGEM in accordance with Statutory Instrument S.I. No. 336 of 2013.

Any person who obstructs or impedes an Authorised Officer in the exercise of his or her duties commits an offence which may lead to fine or imprisonment.

An Authorised Officer may be accompanied and assisted in the exercise of his or her powers, by a member of the Garda Síochána.

The Authorised Officer shall hold a certificate of appointment which he or she shall produce when exercising his or her powers.

The CRU shall be informed in the event of the NGEM issuing an instruction to an Authorised Officer to carry out any of the actions listed above.

For the purposes of the NGEP, an Authorised Officer may take any or all the following actions to ensure compliance of natural gas undertakings and customers with the instructions of the NGEM:

a) At any time, enter land or premises to take any action necessary to ensure compliance with the instruction.

b) Require any person on the land or premises to do all such things as are in his or her opinion necessary or expedient for the purpose of ensuring compliance with the instruction.

c) Require the person in charge of the land or premises to give the Authorised Officer such assistance and facilities within the person's power or control as are reasonably necessary to enable the Authorised Officer to exercise any of his or her powers.

d) Require the person in charge of the land or premises to give the Authorised Officer such information as may be reasonably required for the purpose of his or her powers.

e) Require a person on the land or premises to follow any procedure for the purposes of any action necessary to ensure compliance with the instruction.

11 SUPPLEMENTARY INFORMATION

11.1 Emergency Arrangements for Distribution

The arrangements for Distribution with respect to gas supplies during an emergency are set out separately in the Transporters procedure 'Distribution Emergency Response Plan' which does not form part of the NGEP.

11.2 Arrangements for Obtaining Emergency Powers

It may be necessary for the NGEM to seek government support to assist with the management of a Natural Gas Emergency; examples are described below:

a) To compel organisations or individuals to carry out the directions of the NGEM given in accordance with the NGEP.

b) To seek the support of other government departments and agencies, including the civil and military authorities, to assist with the management of the emergency.

c) To interface with external governments and agencies; including the Northern Ireland Office, UK Government and the EU Gas Coordination Group, as required.

If the above support is required, the NGEM makes the request to the CRU (in writing where time permits) and will detail the support required indicating specific requirements and desired timescales for delivery. The CRU will liaise with the lead government department (DECC) and other government departments and/or agencies as necessary. Requests for support will be discussed at the GERT.

12 CAPABILITY REQUIREMENTS

To ensure that the NGEP is fit for purpose and that all participants in the emergency response have the capability to effectively deliver the plan the following requirements will apply.

12.1 National Gas Emergency Manager (Personnel Specification)

The NGEM will be an experienced gas engineer meeting the following criteria:

a) A minimum of 10 years operational experience of gas engineering.

b) Experience of planning for, and operational management of gas emergencies.

c) Have successfully completed an annual NGEM competence assessment.

It should be noted that the above criteria will also apply to personnel designated to undertaking the tasks of the NGEM.

It is the responsibility of the NGEM to ensure that there are an adequate number of personnel meeting the above requirements to ensure 24/7 availability.

The names of the personnel fulfilling the role of the NGEM will be proposed by the Transporter to the CRU for its approval.

12.2 Training

All members of the GNI Support Team will receive initial training and as a minimum annual update training and briefing as required. If the NGEP has been subject to major amendments, then the NGEM may require that additional training is provided for participants in the operational response.

It is the responsibility of the NGEM to ensure that adequate training has taken place to ensure the effectiveness of the NGEP. Participation in the annual exercise (as below) is considered to meet the annual update training requirement.

12.3 Testing

The NGEP will be subject to annual testing through an emergency exercise against a credible scenario arranged by the NGEM. As a minimum the test will establish the GERT and check communications with all participants in the emergency response. This requirement may be relaxed if the GERT has been established to respond to a real emergency during the year.

Following an emergency exercise or an actual incident the NGEM will arrange for a report to be prepared for the GERT, identifying lessons learnt and making recommendations on improvement to the NGEP and the emergency response arrangements.

It is the responsibility of the NGEM to ensure that the NGEP has been subject to test and that it is fit for purpose. It is also the responsibility of the NGEM to ensure that any recommended improvements to the NGEP are implemented.

12.4 Review

The NGEM will ensure that the NGEP is subject to annual review and with the approval of the CRU capture any changes to industry or market structure that may impact on the effectiveness of the plan.

13 ADMINISTRATION

13.1 Publication

The NGEP is published by the NGEM with the approval of the CRU. A public version of the NGEP is made available on the GNI website (www.gasnetworks.ie). Users of the NGEP must ensure that they are in possession of the latest edition.

13.2 Amendment

The NGEM is responsible for agreeing any amendments to the plan for the approval by CRU. There are two categories of amendment, specifically material and non-material.

Material
A material change is one which changes the structure and/or operation of the plan and requires immediate approval before it can be implemented.

Non-Material
A non-material change is one which does not change the structure and/or operation of the plan and does not require immediate approval but can be incorporated in a routine update of the document. An example would be the change in the name of an organisation involved in the emergency response.

14 REFERENCED DOCUMENTS

Document Title	Document Number
GNI Transmission Response and Repair Manual	AO/MN/005
GNI Distribution Emergency Response Team Plan	AO/PR/151
Code of Operations	N/A
UK Gas Safety (Management) Regulations (GS(M)R) 1996	N/A
Great Britain Natural Gas Supply Emergency Procedure	T/PM/E/1
GNI Crisis Management Plan	HSQ/PR/006
Please refer to Section 7.2 for additional related documentation	

15 GLOSSARY OF TERMS AND ABBREVIATIONS

CM	Crisis Manager
CRU	Commission for Regulation of Utilities
CSO	Connected System Operator
DECC	Department of the Environment, Climate and Communications
DM	Daily Metered (Customers)
GCG	Gas Coordination Group
EPON	Energy Press Officers Network
ESB	Electric Supply Board
GERT	Gas Emergency Response Team
GNI	Gas Networks Ireland
HSA	Health and Safety Authority
JEERT	Joint Energy Emergency Coordination Group
LDM	Large Daily Metered (Customers)
MEL	Mutual Energy Ltd.
NEC	Network Emergency Coordinator
NECG	National Emergency Coordination Group
NGEM	National Gas Emergency Manager
NGEP	Natural Gas Emergency Plan
NIE	Northern Ireland Electricity
NINEC	Northern Ireland Network Emergency Coordinator
SITREP	Situation Report
SONI	System Operator Northern Ireland
TSO	Transmission System Operator
VEPIL	Vermilion Energy Production Ireland Ltd.

16 GENERATED RECORDS

Record	Location
Situation Report (SITREP)	GNI Grid Control Sharepoint Site
Action Report	GNI Grid Control Sharepoint Site
Exercise Report	GNI Grid Control Sharepoint Site
Emergency Declaration Form(s)	GNI Grid Control Sharepoint Site