



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

National Gas Supply Emergency Plan

2014-16

Ireland

DOCUMENT TYPE:	Emergency Planning Document
REFERENCE:	CER/14/784
DATE PUBLISHED:	3rd December 2014

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Acronyms

BECP: Blackstart Emergency Communications Plan

BGE: Bord Gais Eireann

BGN: Bord Gais Networks

CER: Commission for Energy Regulation

DCENR: Department of Communication, Energy & Natural Resources (Ireland)

DECC: Department of Energy & Climate Change (Great Britain)

EU: European Union

GB: Great Britain

GERT: Gas Emergency Response Team

GNI: Gas Networks Ireland

IoM: Isle of Man

JRC: Joint Research Centre

MEMF: Major Emergency Management Framework

NBP: National Balancing Point

NCC: National Coordination Group

NGEM: National Gas Emergency Manager

NGU: Natural Gas Undertaking

PSRP: Power System Restoration Plan

PTL: Premier Transmission Limited

TSO: Transmission System Operator

UK: United Kingdom

1 Introduction

Pursuant to the implementation of EU Regulation 994/2010 (“the Regulation”), Member States are required to implement measures to safeguard security of gas supply including, inter-alia, the development of a Emergency Plan. The CER as the designated Competent Authority for Ireland, has prepared this National Gas Supply Emergency Plan (hereafter in this document referred to as the Emergency Plan) in accordance with Article 4 and 10 of the Regulation.

Essentially, the primary objective of the Emergency Plan is to ensure a consistent and coordinated response to an unplanned gas supply interruption in order to ensure that a gas supply emergency is prevented, or if not possible is resolved expeditiously and competently, thereby minimising effects on the operation of the gas market at a national, regional and European level.

In accordance with Article 10 of the Regulation, this Emergency Plan:

- i. contains information of the three crisis levels identified within the Regulation (i.e. “early warning”, “alert” and “emergency”);
- ii. defines the roles and responsibilities of the CER, Natural Gas Undertakings (NGUs), and other market participants at each crisis level;
- iii. identifies measures and actions to be taken to mitigate the potential impact of a gas supply disruption on the supply of electricity generated from gas;¹
- iv. contains detailed procedures and measures to be followed for each crisis level, including the corresponding schemes on information flows;
- v. identifies the contribution of market-based measures for coping with situation at “alert” level, and mitigating the situation at “emergency” level;
- vi. identifies the contribution of non-market based measures to be implemented at “emergency” level, and assesses the degree to which the use of such non-market based measures is necessary to cope with a crisis;
- vii. assesses the effects of non-market based measures and the procedures required to implement them;
- viii. describes the mechanisms used to cooperate with other Member States for each crisis level;
- ix. details reporting obligations on NGUs at alert and emergency levels; and
- x. establishes a list of predefined actions to make gas available in the event of an emergency, including commercial and compensation agreements between the parties involved in such actions.

In terms of preparing this Emergency Plan, cognisance was given to the Regulation’s requirements that:

¹ Measures and actions to mitigate the potential impact of a gas supply disruption on district heating are not applicable to Ireland.

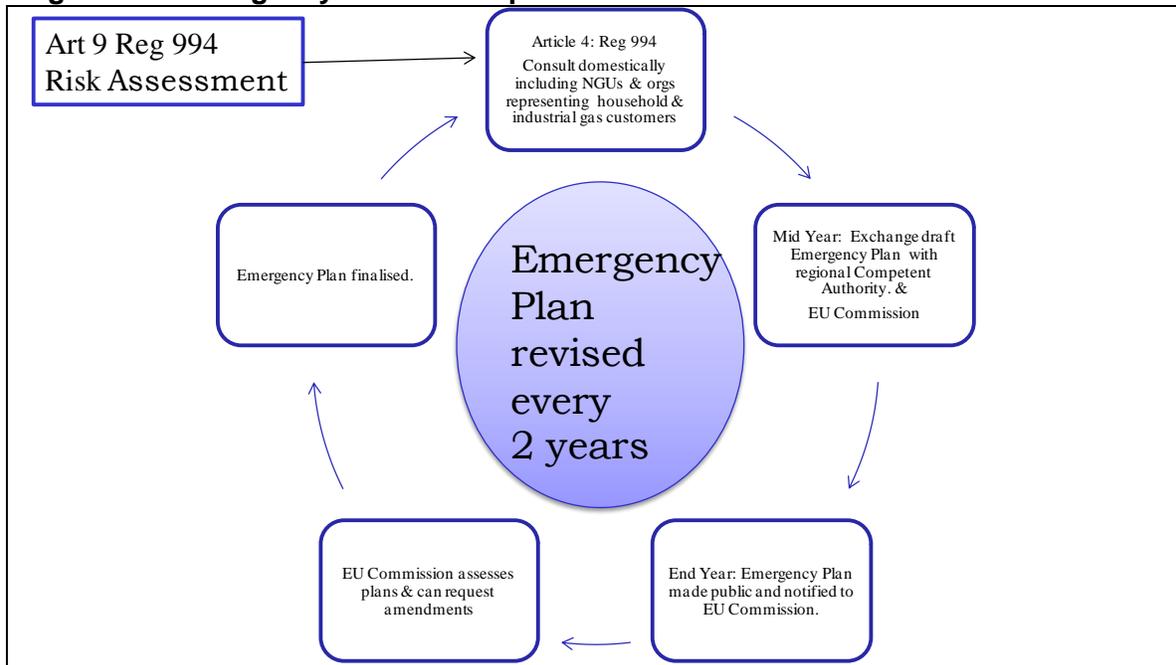
- non-market based measures are to be used only when market-based mechanisms alone can no longer ensure supplies (in particular to protected customers);
- no measures are introduced, which unduly restrict the flow of gas within the internal market, at any time;
- no measures are introduced that are likely to endanger seriously the gas supply situation in another Member State; and
- cross-border access to infrastructure is maintained as far as technically and safely possible in the event of an emergency.

The Emergency Plan as defined by Articles 4 and 10 of the Regulation will be developed as illustrated in Figure 1.1 based on:

- an updated Risk Assessment, which reflects market developments (both at a national, regional and European level);
- consultation with industry stakeholders (i.e. NGUs, and organisations representing the interests of household and industrial gas customers); and
- interactions with regional Competent Authorities (i.e. DECC), and the European Commission.

The Emergency Plan will be up-dated biennially in accordance with Article 10 (2) or more frequently if the CER consider this necessary. The rationale for up-dating the Emergency Plan will be based on the Risk Assessment and the Preventive Action Plan, which also will be up-dated biennially, and any other reasons considered prudent by the CER including where appropriate lessons learned from emergency exercises.

Figure 1.1: Emergency Plan Development Process



1.1 Context of Emergency Plan

This Emergency Plan provides a framework for the interaction between Gaslink's **operational emergency plan** (the Natural Gas Emergency Plan – NGEPlan) and the European measures concerning the security of gas supply and emergency management as provided for under the Regulation.

Gaslink's NGEPlan sets out in detail the operational arrangements to be effected in addressing a natural gas emergency in Ireland, including:

- detailed operational plan containing the procedures to be followed in a gas emergency;
- the roles and responsibilities of energy participants;
- the reporting arrangements and structures;
- contact details;
- communication protocols; and
- instruction and advice templates.

In contrast, this Emergency Plan contains the procedures to be followed when there is a potential or actual national gas supply crisis and focuses in particular on interactions with the EU Commission via the Gas Co-ordination Group.

1.2 Emergency Plan: High Level Roles and Responsibilities

The roles and responsibilities of the primary actors in the context of this Emergency Plan are outlined below, and are further elaborated upon in Section Three, in conjunction with other relevant market participants.²

- The Department of Communications, Energy & Natural Resources (DCENR)** is the Government Department responsible for the formulation of energy policy, including security of energy supply.³ In the context of a gas emergency, DCENR would assume the role of Lead Government Department. As Lead Department, DCENR would be responsible for convening and chairing the National Coordination Group (NCG), which consists of all Government Departments and the relevant agencies. Essentially, the NCG would coordinate the wider, strategic, national response to a major gas emergency. This would include the activation of the Major Emergency Management Framework (MEMF), through which the response of the emergency services is coordinated. The NCG would also coordinate the national media response and hold daily press briefings. Additionally, in terms of its interactions with Europe, the DCENR is a member of the European Gas Coordination Group.

² Appendix 1 provides a high level illustration of the roles and responsibilities of the primary actors involved in this Emergency Plan.

³ In relation to oil, DCENR is also responsible for the development and implementation of Ireland's oil security policy, which includes contingency planning. Such contingency arrangements are reflected in DCENR's Handbook on Oil Supply Disruption Contingency Measures.

- Further information regarding national structures for emergency planning in Ireland is available in the Department of Defence Strategic Emergency Planning Guidance document. At a high level, these structures include a Government Task Force on Emergency Planning (chaired by the Minister for Defence), and an Inter-Departmental Working Group on Emergency Planning (chaired by the Office of Emergency Planning), in addition to an Emergency Planning Media Unit (chaired by Government Information Service), and a National Security Committee.
- ii. **The Commission for Energy Regulation (CER)** is the Regulatory Authority for electricity and gas in Ireland. The CER has, *inter alia*, statutory responsibility for monitoring and ensuring security of gas and electricity supplies. The CER has been designated by DCENR as Competent Authority under Article 2.2 of the Regulation to ensure the implementation of the measures set out in the Regulation, and is also invited to attend European Gas Coordination Group meetings.⁴ Additionally, the CER has responsibility for the regulatory regime relating to gas and electricity safety in Ireland.
 - iii. **Gaslink** is the gas Transmission System Operator (TSO) for Ireland with responsibility for system operation, network planning and market arrangements. The CER has appointed Gaslink as the **National Gas Emergency Manager (NGEM)**. The NGEM is responsible for the practical and operational management of a gas supply emergency. Additionally, Gaslink is responsible, under its licence from the CER, for the development of the NGEP, which is approved by the CER. An important feature of Gaslink's NGEP is the **Gas Emergency Response Team (GERT)** which is convened by the NGEM. The GERT is chaired by the NGEM and comprises Gaslink, CER, EirGrid (the electricity TSO), BGN and DCENR. The GERT is responsible for managing the operational response to the gas supply emergency. The CER has also appointed Gaslink as the **Crisis Manager** in accordance with Article 10 of the Regulation. The Crisis Manager will provide technical liaison between the NGEM, the NCG and the European Gas Coordination Group. This role may include the provision of technical updates at NCG press briefings.
 - iv. **EirGrid:** 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 order to facilitate communications during a gas emergency, EirGrid and BGN have developed Joint Procedures for the Control of Emergencies. With reference to electricity emergencies, EirGrid have also developed a Blackstart Emergency Communications Plan (BECP), and a Power System Restoration Plan (PSRP).⁵

⁴ In accordance with SI 336 (2013) EUROPEAN UNION (SECURITY OF NATURAL GAS SUPPLY), the CER has been formally designated as Ireland's Competent Authority for the implementation of Regulation (EU) 994/2010.

⁵ The BECP sets out the appropriate communication and stakeholder management procedures to be followed in the event of a widespread electricity system blackout. In contrast, the PSRP outlines the detailed operational response to a system blackout.

Note: Semi-state company Bord Gais Eireann (BGE) is currently undergoing a period of company restructuring, which will result in the amalgamation of Bord Gais Networks (BGN) and Gaslink into a gas network company (i.e. Gas Networks Ireland). Additionally, it is envisaged that Gaslink and BGN will become certified as a Fully Ownership Unbundled (FOU) Transmission System Operator in 2015, therefore any reference to BGN or Gaslink within this Emergency Plan 2014-16 shall be deemed as a referral to Gas Networks Ireland (GNI).

1.3 Structure of Emergency Plan

This Emergency Plan document is structured as follows:

- Section Two: outlines trigger mechanisms for the declaration of various crisis levels contained within the Regulation.
- Section Three: outlines the obligations imposed on NGUs and relevant market participants in terms of responding to, and providing information on, each crisis level.
- Section Four: outlines the contribution of market and non-market based measures for addressing alerts and emergency scenarios.
- Section Five: presents the procedures and measures applicable to each crisis level, and outlines predefined actions regarding commercial arrangements to make gas available in the event of an emergency.
- Section Six: describes the mechanisms for cooperating with the UK.
- Section Seven: summary.

2 Crisis Levels

Article 10(3) of the Regulation identified three potential crisis levels that are to be activated in terms of addressing a threat to gas supplies (subject to the scale of the crisis), namely:

- Level 1: early warning;
- Level 2: alert; and
- Level 3: emergency.

The objective of this section is to elaborate upon these crisis levels and identify the various events that would trigger a particular crisis level.

2.1 *Early Warning*

An early warning is declared⁶ when there is concrete, serious and reliable information that an event may occur, which is likely to result in a significant deterioration of Irish gas supplies, and is likely to lead to the alert or the emergency level being triggered. This could be, for example, a problem with the European gas supply chain or an Irish or UK infrastructure problem, which has the potential to impact on Irish gas supplies. Consequently, the CER, as the designated Competent Authority, will declare an early warning based upon one or more of the following scenarios:

- information provided by Gaslink to the CER, which in the CER's opinion warrants declaration of an early warning;
- an announcement and/or statement by the European Gas Coordination Group of potential threats to the security of energy supply in Europe, which in the CER's opinion warrants the declaration of an early warning in Ireland;
- an announcement and/or statement by DECC of potential threats to the security of energy supply in the UK, which in the CER's opinion warrants the declaration of an early warning in Ireland;
- the issuance of a Margins Notice or Gas Deficit Warning in the UK by National Grid, which in the CER's opinion warrants the declaration of an early warning in Ireland; and
- any other scenario, which in the CER's opinion requires the declaration of an early warning.

2.2 *Alert*

An alert is declared when a supply disruption or exceptionally high gas demand occurs, resulting in a significant deterioration of the supply situation, but can be addressed through the utilisation of market based measures. This could be as a result of an escalation of an early warning situation or an event as outlined above at early warning

⁶ The declaration of a crisis level (i.e. early warning, alert and emergency) refers to the scenario whereby the CER is responsible for informing the EU Commission of an emergency. The NGEM shall still be required to declare an emergency in accordance with the Natural Gas Emergency Plan. The declaration of a crisis level by the CER may take the form of a written notification to the EU Commission via the European Gas Co-ordination Group email circulation list, or any other communication method deemed appropriate by the CER.

level but with a higher likelihood of impacting on gas supplies. At this crisis level it is anticipated that there are market impacts (e.g. higher NBP prices) but that the market is capable of coping with the event. The issuance of an alert in Ireland by the CER, as the designated Competent Authority, will be based upon one or more of the following scenarios:

- information provided by Gaslink to the CER, which in the CER's opinion warrants the declaration of an alert;
- an announcement and/or statement by the European Gas Coordination Group, which in the CER's opinion warrants the declaration of an alert in Ireland;
- an announcement and/or statement by DECC, which in the CER's opinion warrants the declaration of an alert in Ireland;
- the issuance of a Margins Notice or Gas Deficit Warning in the UK by National Grid, which in the CER's opinion warrants the declaration of an alert in Ireland; and
- any other scenario, which in the CER's opinion requires the declaration of an alert.

2.3 Emergency

An emergency is declared in the event of exceptionally high gas demand, significant supply disruption or other significant deterioration of the supply situation and in the event that all relevant market based measures have been implemented but the supply of gas is insufficient to meet the remaining gas demand. At this crisis level it is necessary for the NGEM to take control and implement Gaslink's NGEP.

The declaration of an emergency in Ireland by the CER, as the designated Competent Authority, will be based upon one or more of the following scenarios:

- information provided by the NGEM to the CER, which in the CER's opinion warrants the declaration of an emergency;
- an announcement and/or statement by the European Gas Coordination Group of, which in the CER's opinion warrants the declaration of an emergency in Ireland;
- an announcement and/or statement by DECC, which in the CER's opinion warrants the declaration of an emergency in Ireland;
- the issuance of a Margins Notice or Gas Deficit Warning in the UK by National Grid, which in the CER's opinion warrants the declaration of an emergency in Ireland;
- an announcement and/or statement by the European Commission that a Union Emergency has been declared; and
- any other scenario, which in the CER's opinion requires the declaration of an emergency.

3 Obligations on NGUs & Relevant Market Participants

In order to ensure transparency and accountability during a gas security of supply crisis, this section identifies the relevant parties involved, and their respective responsibilities at an early warning, alert, and emergency crisis level.⁷

3.1 Early Warning

Table 3.1 outlines the general roles and responsibilities of all parties involved at an early warning crisis level.

Table 3.1: Roles and Responsibilities – Early Warning Level

Participant	Role & Responsibilities
CER	<ul style="list-style-type: none"> • Determine whether an early warning should be declared in Ireland, and declare an early warning if necessary. • Advise Crisis Manager that an early warning has issued, and the rationale for the declaration if necessary. • Inform DCENR as lead Government Department that an early warning has been declared in Ireland and the rationale for the declaration, if necessary. • Inform the EU Commission via the European Gas Co-ordination Group that an early warning has been declared in Ireland and the rationale for the declaration, if necessary. • Provide updates to the European Gas Co-ordination Group for the duration of the early warning. • Decide whether to remove, maintain or escalate early warning.
DCENR	<ul style="list-style-type: none"> • Place National Co-ordination Group on stand-by. • Liaise with departments in Northern Ireland and UK.
Crisis Manager	<ul style="list-style-type: none"> • Advise Gaslink that CER has declared an early warning. • Provide situation updates and requested information to the CER.

⁷ The obligations on NGUs and relevant market participants are detailed within the Code of Operations, and their respective licences. Consequently, the obligations contained within the Code of Operations and the relevant licences, take precedence over any information contained within this Emergency Plan. For clarity, NGU refers to a natural or legal person carrying out at least one of the following functions: production, transmission, distribution, shipping, supply, purchase or storage of natural gas, including Liquefied Natural Gas (LNG), which is responsible for the commercial, technical and/or maintenance tasks related to those functions, but shall not include final customers.

	<ul style="list-style-type: none"> • Brief DCENR and the European Gas Co-ordination Group as appropriate. • Provide situation updates to Gaslink as appropriate.
Gaslink	<ul style="list-style-type: none"> • Advise NGU's that an early warning has been declared by the CER. • Provide situation up-dates to the Crisis Manager. • Advise NGU's that early warning crisis declaration is revoked.
Suppliers	<ul style="list-style-type: none"> • Notify registered industrial gas customers of early warning if appropriate.

3.2 Alert

Table 3.2 outlines the general roles and responsibilities of all parties involved at an alert crisis level.

Table 3.2 Roles and Responsibilities – Alert Level

Participant	Role & Responsibilities
CER	<ul style="list-style-type: none"> • Determine whether an alert should be declared in Ireland, and declare an alert if necessary. • Advise the Crisis Manager that an alert has issued and the rationale for the declaration if necessary. • Inform DCENR as lead Government Department that an alert has been declared in Ireland and the rationale for the declaration if necessary. • Inform the EU Commission via the Gas Co-ordination Group that an alert has been declared in Ireland and the rationale for the declaration if necessary. • Provide updates to the European Gas Co-ordination Group and the Crisis Manager for the duration of the alert. • Decide whether to remove, maintain or escalate alert. • Approve the Crisis Manager's Action Plan. • Monitor the effectiveness and/or request amendments to the Action Plan. • Decide whether to remove, maintain or escalate an alert.

<p>Crisis Manager</p>	<ul style="list-style-type: none"> • Advise Gaslink that an Alert has been declared by the CER. • Provide an Action Plan for CER approval if required. • Implement Action Plan and monitor its effectiveness. • Provide situation reports to CER if appropriate, and information to the CER in accordance with the Regulation. • Brief DCENR and the European Gas Co-ordination Group as appropriate. • Provide situation updates to Gaslink as appropriate. • Produce a Closing Report for the CER if required.
<p>DCENR</p>	<ul style="list-style-type: none"> • Place National Co-ordination Group on stand-by. • Liaise with departments in Northern Ireland and UK, as required.
<p>Gaslink</p>	<ul style="list-style-type: none"> • Advise NGU's that an alert has been declared by the CER. • Provide information to Crisis Manager as required. • Advise NGU's when alert declaration is revoked. • Provide updates to NGUs on alert.
<p>Suppliers</p>	<ul style="list-style-type: none"> • Notify registered industrial gas customers of alert. • Implement market based demand side measures, if any.
<p> Holders of a Petroleum Lease</p>	<ul style="list-style-type: none"> • Implement market based measures, if possible.
<p>Storage/LNG Operators</p>	<ul style="list-style-type: none"> • Implement market based measures, if possible.

3.3 Emergency

Table 3.3 outlines the general roles and responsibilities of all parties involved at an emergency crisis level.

Table 3.3 Roles and Responsibilities - Emergency Level

Participant	Role & Responsibilities
CER	<ul style="list-style-type: none"> • Determine whether an emergency should be declared in Ireland, and declare an emergency if necessary. • Advise Crisis Manager that emergency has been declared. • Inform the EU Commission via the Gas Co-ordination Grop that an emergency has been declared in Ireland, and provide updates until issue is resolved. • Attend GERT meeting(s). • Take appropriate action in the case of non-compliance with directions issued by the NGEM. • Decide whether to remove or maintain an emergency. • Prepare final report for the European Gas Co-ordination Group if appropriate.
ESB Networks	<ul style="list-style-type: none"> • Manages the operations of the local electricity supply networks during a gas supply emergency under the direction of EirGrid.
NGEM	<ul style="list-style-type: none"> • Implement Gaslink's NGEP. • Convene and chair the GERT. • Inform CER in the case of non-compliance with directions issued by the NGEM. • Co-operate with the Crisis Manager in providing situation up-dates and in preparing situation and closing reports.
Crisis Manager	<ul style="list-style-type: none"> • Liaise with the NGEM and Gaslink. • Liaise with the electricity TSO. • Brief the DCENR, NCG and European Gas Co-ordination Group. • Provide technical input to the NCG press briefings. • Provide Situation Reports to CER.

	<ul style="list-style-type: none"> • Produce a Closing Report for the CER.
DCENR	<ul style="list-style-type: none"> • Convene and chair NCG. • Liaise with departments in Northern Ireland and UK. • Participate in the GERT. • Inform Government Departments as appropriate. • Co-ordinate National Media response.
Gaslink	<ul style="list-style-type: none"> • Inform NGUs that an emergency has been declared. • Provide updates to NGUs on emergency. • Co-operate with Crisis Manager in developing situation reports. • Attend GERT meetings. • Provide regular updates to NGUs on emergency. • Advise NGUs that emergency has been revoked.
EirGrid	<ul style="list-style-type: none"> • Attend the GERT and provide input on electricity system impacts. • Provide information on electricity system to the NGEM. • Liaises with the NGEM on impact of emergency on electricity generation. • Undertakes load switching of power stations as required by the NGEM. • Declares electricity emergency. • Load shed electricity customers as necessary to protect the integrity of the electricity system.
BGN	<ul style="list-style-type: none"> • Provide operational services with respect to the gas supply system and implement the instructions of the NGEM. • Load shed gas customers if necessary.
Shippers/Suppliers	<ul style="list-style-type: none"> • Notify registered industrial gas customers of emergency. • Comply with directions of NGEM.
 Holders of a Petroleum lease	<ul style="list-style-type: none"> • Comply with directions of the NGEM.

Storage/LNG Operators	<ul style="list-style-type: none"> Comply with directions of the NGEM.
Consumers	<ul style="list-style-type: none"> Gas and electricity consumers respond to demand reduction requests from the NGEM and/or the electricity network operators.
Generators	<ul style="list-style-type: none"> Respond to requests from EirGrid to reduce demand or switch fuel supplies.
Emergency Services	<ul style="list-style-type: none"> Emergency Services/Local Authorities in Ireland manage the social consequences of the gas supply emergency.

3.4 Reporting Obligations during an Alert and Emergency

NGUs' reporting obligations to Crisis Manager:

The Crisis Manager requires information from all Shippers/Producers/Storage Operators to enable the best utilisation of all facilities in the event of an alert or emergency, including:

- forecast deliveries at all entry points;
- maximum available deliveries at all entry points;
- forecast deliveries from storage services; and
- maximum available deliveries from all storage services.

It is the responsibility of the Shippers/Producers/Storage Operators to provide such information to the Crisis Manager on a regular basis when requested.

Additionally, the Gas TSO shall provide information on:

- available gas storage days;
- number of days linepack available; and
- consumption of gas fired power stations at time of crisis declaration.

Crisis Manager's reporting obligations to CER/Competent Authority:

In order to ensure compliance with Article 13(2) of the Regulation, the Crisis Manager shall provide, on a daily basis, the following information to the CER during an emergency:

- daily gas demand and supply forecasts for the following 3 days;
- daily flow of gas at all cross-border entry and exit points as well as all points connecting a production facility, a storage facility or an LNG terminal to the network, in mcm/d; and
- the period, expressed in days, for which it is expected that gas supply to the protected customers can be ensured.

CER/Competent Authority reporting obligations to EU Commission:

In the event of a Union or regional emergency, the CER shall provide the following information, if requested, to the EU Commission:

- information requirements as set out in Article 13(2) of the Regulation;
- information on the measures planned to be undertaken and already implemented to mitigate the emergency, and information on their effectiveness;
- the requests made for additional measures to be taken by other Competent Authorities; and
- the measures implemented at the request of other Competent Authorities.

Additionally, following the end of an emergency in Ireland, the CER shall, as soon as possible and at the latest 6 weeks after the lifting of the emergency, provide to the EU Commission a detailed assessment of the emergency and the effectiveness of the implemented measures, including an assessment of the economic impact of the emergency, the impact on the electricity sector, and the assistance provided to, and/or received from the Union and its Member States. In order to complete such a report, the CER will require input from EirGrid, Gaslink, the Crisis Manager and the NGEM.

4 Market & Non-market Based Measures

In order to ensure compliance with the infrastructure standard, this section outlines the preventive measures that can be undertaken, in terms of ensuring gas security of supply. Consequently, this section discusses the following:

- market based measures;
- non-market based measures;
- operational and infrastructure improvements; and
- regional cooperation.

4.1 Market Based Measures

In the event that an alert is declared as a result of a potential shortage of gas supplies in the UK, it is likely that the National Balancing Point (NBP) will have risen. This should result in the maximisation of indigenous Irish gas supplies and storage on a voluntary basis as the market responds to the gas price signals in GB. Outside of a market response to the NBP price signal, Ireland has limited market based measures.⁸

Furthermore, in the event of infrastructure failure at the Moffat Entry Point (as opposed to a potential shortage of gas supplies in GB), it is likely that Ireland would immediately enter an emergency crisis level.

4.2 Non-Market Based Measures

In the event that the market based measures are not sufficient to meet demand it will be necessary to resort to the utilisation of non-market based measures.⁹ In this circumstance the CER may declare a level 3 (emergency) crisis level. At this stage the NGEM will invoke Gaslink's NGEP which in the first instance provides for some non-market based measures. Specifically, this will involve the following steps:

1. Maximisation of the use of linepack on the network.
2. An instruction to gas production facilities and storage to maximise indigenous gas supplies.
3. If the system cannot be rebalanced as a result of these steps firm load shedding will commence.
4. Gaslink will initiate load shedding on behalf of the NGEM by issuing the following emergency instructions:
 - **Instruction** to Isle of Man and Northern Ireland requiring reductions in their overall take.
 - **Instruction** to EirGrid to co-ordinate reductions in gas off-takes for the power generation sector.

⁸ Appendix 2 provides a summary of market based measures (as identified within Annex 2 of the Regulation), and assesses whether they are applicable to Ireland during an alert crisis level.

⁹ Appendix 3 provides a summary of non-market based measures (as identified within Annex 3 of the Regulation), and assesses whether they are applicable to Ireland during an emergency crisis level.

- **Instruction** to Power station shippers, to re-nominate gas off-takes based on requirements as co-ordinated by EirGrid.
5. In the event that the supply/demand imbalance is deteriorating, the NGEM will escalate the emergency, and commence gas allocations and isolations.

The detailed steps at this emergency stage are set out in Gaslink's NGEP.

5 Procedures & Measures in the event of a Crisis

This section presents high level procedures and measures applicable to each crisis level, and outlines predefined actions regarding commercial arrangements to make gas available in the event of an emergency. While this section endeavours to provide an accurate description of the procedures to be followed during a crisis, the CER, 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 10(6) of the Regulation.

5.1 *Early Warning Procedure*¹⁰

- Stage 1: The CER declares an early warning, based on the scenarios outlined in Section 2.1 of this document.
- Stage 2: The CER informs the Crisis Manager who in turn instructs the Gaslink to issue an early warning to NGUs.
- Stage 3: The Crisis Manager submits a Situation Report to the CER.
- Stage 4: The CER will inform the European Commission via the Gas Co-ordination Group
- Stage 5: The CER reviews the Situation Report, and decides whether to remove, maintain or escalate the early warning crisis level.
 - a. Remove: The early warning is revoked, and the Crisis Manager informs the Gaslink who in turn informs the NGUs. The Crisis Manager prepares a Closing Report for the CER.
 - b. Maintain: The Crisis Manager provides regular updates to the CER. Following a review of update(s), the CER will issue a decision as to whether to remove (refer to point a) or escalate crisis level (refer to point c).
 - c. Escalate: The CER declares an alert or emergency.

¹⁰ Appendix 4 provides a flow chart of the early warning procedure.

5.2 Alert Procedure¹¹

- Stage 1: The CER declares an alert, based on the scenarios outlined in Section 2.2 of this document.
- Stage 2: The CER informs the Crisis Manager who in turn informs Gaslink who issues an alert to NGUs.
- Stage 3: The Crisis Manager submits a Situation Report and Action Plan to the CER.
- Stage 4: The CER reviews the Situation Report and Action Plan.
- Stage 5: The CER will inform the European Commission via the European Gas Co-ordination Group
- Stage 6: The Crisis Manager monitors market based measures effect on gas supplies, and provides update to CER.
- Stage 7: CER decides whether to remove, maintain or escalate the alert crisis level.
 - a. Remove: The CER informs the Crisis Manager that the alert is revoked. The Crisis Manager informs Gaslink who in turn informs the NGUs accordingly. Additionally, the Crisis Manager prepares a Closing Report for the CER.
 - b. Maintain: The Crisis Manager provides regular updates to the CER. Following a review of update(s), the CER will issue a decision as to whether to remove (refer to point a) or escalate crisis level (refer to point c).
 - c. Escalate: The CER declares an emergency.

5.3 Emergency Procedure¹²

- Stage 1: The CER declares an emergency, based on the scenarios outlined in Section 2.3 of this document.
- Stage 2: The CER informs the NGEM who convenes the GERT.
- Stage 3: The CER informs the Crisis Manager who in turn informs Gaslink and Gaslink informs the NGUs.
- Stage 4: The CER notifies the European Commission via the European Gas Co-ordination Group.

¹¹ Appendix 5 provides a flow chart of the alert warning procedure.

¹² Appendix 6 provides a flow chart of the emergency procedure.

- Stage 5: The NGEM, in conjunction with GERT members, submits a Situation Report and Action Plan to the CER. CER approves Action Plan (if appropriate).
- Stage 6: The NGEM puts the NGEP into effect.
- Stage 7: The Crisis Manager liaises between the NGEM, Gaslink, DCENR, and the CER and provides situation reports to the GERT.
- Stage 8: CER decides whether to remove or maintain the emergency crisis level.
 - a. Remove: The alert is removed, and the CER informs the Crisis Manager, EU Commission (via the European Gas Co-ordination Group). The Crisis Manager informs Gaslink who in turn informs the NGUs accordingly. Additionally, the Crisis Manager, in consultation with the NGEM and other relevant parties prepares a Closing Report for the CER.
 - b. Maintain: The Crisis Manager, in consultation with the NGEM, provides regular updates to the CER. Following a review of update(s) and discussions with the GERT, the CER will issue a decision as to whether to remove (refer to point a) or maintain crisis level.

5.4 Financial Compensation Measures

The NGEM may issue directions to NGUs regarding the production, use, supply, shipping, storage, transmission and distribution of natural gas in order to respond to a natural gas emergency. However, in terms of compensating NGUs for costs incurred during an emergency (when complying with directions of the NGEM), the Irish Code of Operations only deals with the offtake of gas belonging to another shipper. Specifically, in the event of an Emergency, if a shipper's gas offtake is reduced at an exit or supply point, and offtaken by another shipper, the latter shipper is required to reimburse the former shipper, via the TSO, for this gas.

6 Regional Cooperation

The primary vehicle for regional co-operation on the Emergency Plan is through the UK and Ireland Gas Emergency Group. This group comprises representatives from governments, regulators and TSOs of UK, Ireland, Northern Ireland and Isle of Man. The group meets every six months and has developed a regional approach to emergency planning to ensure that the gas emergency operational plans of all jurisdictions work together. This is achieved through the development of protocols between the TSOs and modifications to emergency plans identified following joint emergency exercises. These are fundamental to the management of a stage 3 crisis level (i.e. emergency). Much of the work of this group has to date focussed on this aspect of regulatory co-operation.

In addition, the group supports government and regulatory co-operation through the adoption and development of emergency planning procedures and communication protocols for emergency management. These measures have a primary role in the early warning and alert crisis levels and seek to ensure consistency of emergency response and preparedness.

7 Summary

Ireland's Emergency Plan (2014-16) has been prepared in accordance with the Regulation. Given that the Emergency Plan will be required to be updated on a biennial basis, the CER will continue to monitor market developments, and update the document to ensure consistency with the Regulation.

Appendix 1: High Level Overview of Roles & Responsibilities



Appendix 2: Ireland's Market Based Measures (Alert)

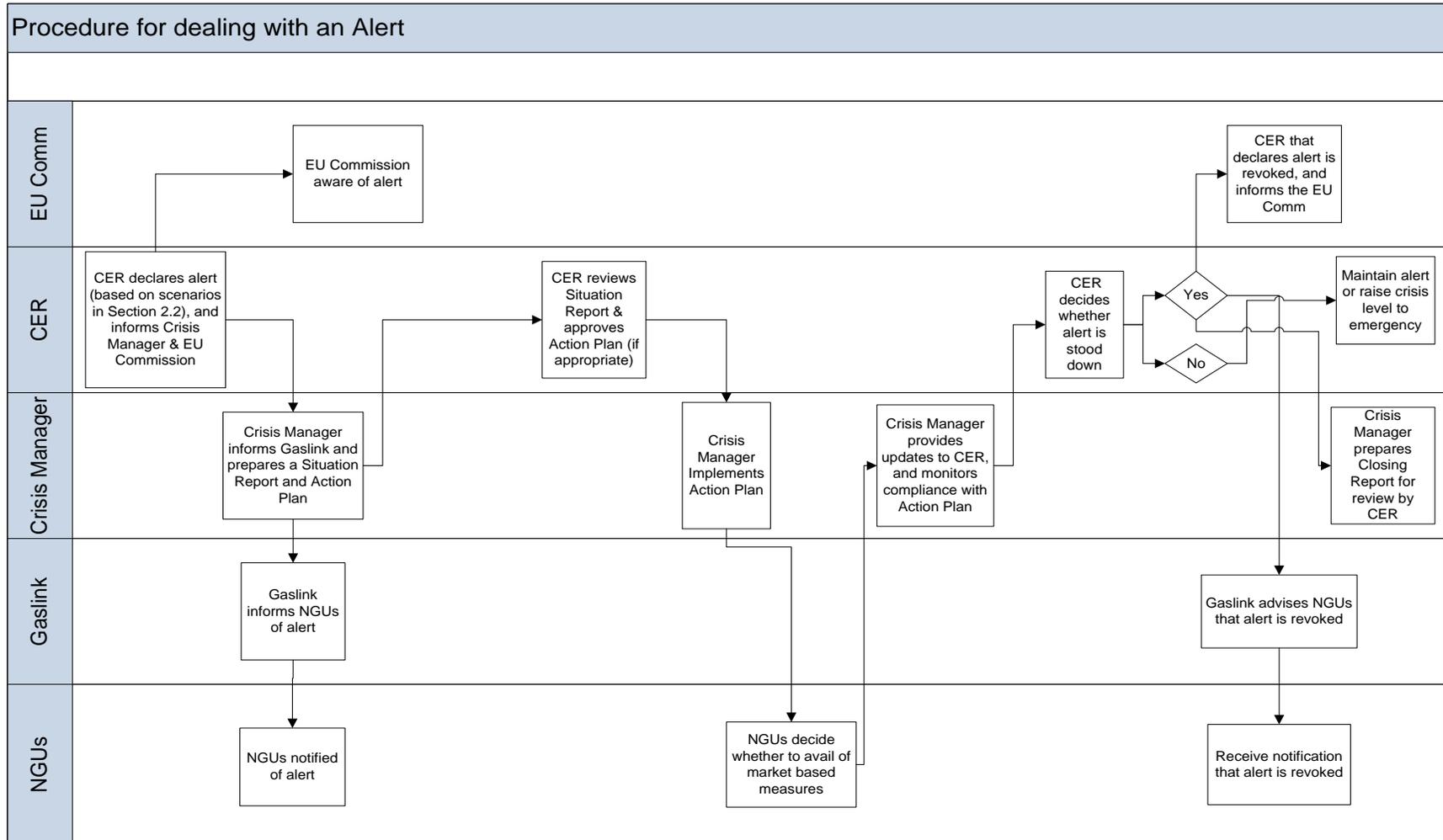
Supply Side Measures	Demand Side Measures
<p>Increased production flexibility</p> <ul style="list-style-type: none"> Ireland currently has limited gas production (approximately 4% of annual gas demand), which enter the system via the Inch entry point. 	<p>Fuel switching</p> <ul style="list-style-type: none"> Not applicable to any significant extent. The electricity TSO (i.e. EirGrid) advised that 'market-driven, uncoordinated change-over to secondary fuel by gas generators would represent a significant and unnecessary risk to the supply of electricity to customers'. Therefore, fuel-switching is only applied as a non-market based measure. In addition, market driven fuel switching is currently not allowed for most generators under the Environmental Protection Agency's (EPA) licence conditions. Non-gas fired generators would be called on in response to higher gas prices or absence of gas.
<p>Increased import flexibility</p> <ul style="list-style-type: none"> Not applicable. Ireland imports approximately 96% of its annual gas supplies from GB (i.e. Moffat Entry Point). 	<p>Use of interruptible contracts</p> <ul style="list-style-type: none"> With reference to the gas sector, interruptible contracts between a gas supplier and their customer involve bilateral negotiations. The CER currently does not have data on such interruptible contracts. The electricity TSO operates demand side schemes including Powersave
<p>Facilitating the integration of gas from renewable energy sources</p> <ul style="list-style-type: none"> Not applicable. Gas from renewable resources (e.g. biogas) in Ireland is limited in volume. 	<p>Voluntary firm load shedding</p> <ul style="list-style-type: none"> During Stage 1 'Potential Gas Emergency', the Transporter will seek voluntary load reductions in the Power Generation Sector.
<p>Commercial gas storage</p> <ul style="list-style-type: none"> Ireland has limited storage capability, which enters the system from the Kinsale gas fields via the Inch Entry Point. In the event of a gas supply interruption, it is assumed that Kinsale Energy would respond to higher NBP in GB by maximising the amount of gas entered onto Ireland's gas system at Inch Entry point. 	<p>Increased use of renewable energy sources</p> <ul style="list-style-type: none"> Wind is Ireland's primary source of renewable energy, and accounted for 16.4% of Ireland's annual electricity generation in 2013. However, wind is intermittent and cannot provide a reliable source of energy.

LNG terminal capacity <ul style="list-style-type: none">• Not applicable.	
Diversification of gas supplies <ul style="list-style-type: none">• Not applicable. Ireland imports approximately 96% of its annual gas supplies from GB (via the Moffat Entry Point).	
Reverse flows <ul style="list-style-type: none">• Not applicable.	
Contractual arrangements to ensure gas supply <ul style="list-style-type: none">• Given Ireland's connection to the liquid hub at NBP along with the diversified supplies into GB, the CER decided not to impose requirements on suppliers to secure supply of gas.	

Appendix 3: Ireland's Non- Market Based Measures (Emergency)

Supply Side Measures	Demand Side Measures
<p>Use of Strategic Gas Storage.</p> <ul style="list-style-type: none"> Not applicable. Ireland does not have strategic gas storage facilities. 	<p>Enforced Fuel Switching</p> <ul style="list-style-type: none"> Gas-fired power generators are required to maintain fuel-switching capacity. Baseload gas-fired generators are required to hold five days of secondary fuel stocks and to be able to run at 90% output capacity for that period in a natural gas emergency, while mid-merit generating units are required to have three days of secondary fuel stocks on site and also to maintain a 90% output.
<p>Enforced use of stocks of alternative fuels</p> <ul style="list-style-type: none"> Not applicable. In the event of a gas supply interruption, secondary fuel stocks at gas fired generation stations would be consumed (without necessarily being forced). 	<p>Enforced Utilisation of Interruptible Contracts</p> <ul style="list-style-type: none"> Not applicable, other than to the extent that such contracts might exist between suppliers and their customers.
<p>Enforced use of electricity generated from sources other than gas</p> <ul style="list-style-type: none"> Not applicable. Maximum use of non-gas fired generation stations would occur (without necessarily being forced) 	<p>Enforced Firm Load Shedding</p> <ul style="list-style-type: none"> Under Stage 2 of Gaslink's National Gas Emergency Plan, the NGEM can implement progressive load shedding. In the event of load shedding, LDM customers would be curtailed first, followed by DM and NDM customers.
<p>Enforced increase of gas production levels</p> <ul style="list-style-type: none"> The National Gas Emergency Manager (i.e. Gaslink) has the authority to instruct production operators to maximise gas production flows. 	
<p>Enforced storage withdrawal</p> <ul style="list-style-type: none"> Under Stage 2 of Gaslink's National Gas Emergency Plan, the NGEM can maximise the use of linepack and storage. 	

Appendix 5: Alert Flow Chart



Appendix 6: Emergency Flow Chart

