Ministerie van Economische Zaken
en Klimaat

Gas protection and recovery plan.

Measures during (a threat of) a significant detoriation in the gas supply.

This document is a draft. Please treat as such and do not spread further.

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Introduction

Problems in the field of gas supply in the Netherlands can have major consequences: despite the energy transition, society is still dependent on gas for a significant part of its energy supply. A shortage of (the right type of) gas, causing a significant deterioration of the gas supply situation, therefore requires a well-considered, adequate approach.[1]

Requirements have been set for this approach at the European level. Regulation (EU) 2017/1938 concerning measures to safeguard the security of gas supply (hereinafter: the EU Regulation) requires the competent authority of each Member State to draw up a contingency plan containing the measures to eliminate or mitigate the effects of a gas supply disruption, in accordance with the rules on emergency plans set out in the Regulation. This emergency plan, known in the Netherlands as the Gas Protection and Recovery Plan (hereinafter: BH-G), was drawn up in 2019 and must be updated at least once every four years. The Minister of Economic Affairs and Climate Policy (EZK) is the competent authority within the meaning of Article 3(2) of the EU Regulation (Article 52ab(1) of the Gas Act). Due to the division of portfolios between the ministers in the cabinet, the Minister for Climate and Energy (K&E) is both the responsible and competent minister for this subject at the time of adoption of this BH-G and, consequently, the competent authority.[2] The Minister for K&E is therefore responsible for drawing up the emergency plan. Annex VII of the EU Regulation sets out the template for a contingency plan.

In front of you lies the second (revised) version of the BH-G, which has been drawn up by the Minister for K&E, as the person responsible for the security of gas supply in the Netherlands, in close cooperation with the operator of the national gas transport network Gasunie Transport Services (GTS) and after consultation with stakeholders.

The BH-G from 2019 has been updated on the basis of the aforementioned obligation under the EU Regulation to update the emergency plan every four years, in conjunction with the update of the National Gas Risk Assessment (NRA) and the Gas Preventive Action Plan (PAG).[3] The BH-G contains the measures that must be considered in the event of an (imminent) situation that significantly worsens the gas supply in order to eliminate or limit the effects of a disruption of gas supply (Article 8(2)(b) of the EU Regulation), in particular to secure gas supplies to protected customers (Article 11(1) of the Regulation), in particular to secure gas supplies to protected customers (Article 11(1) of the (c) of the EU Regulation). To this end, it is essential that the functioning of the gas transport and distribution network is ensured.

[1] The BH-G intends to cope with an (imminent) shortage of gas. For other types of crises (e.g. explosions, accidents), the DG Climate & Energy Crisis Decision-Making Manual is used. The grid operators also have emergency plans.

[2] When a new cabinet takes office, it must be determined to whose portfolio this subject belongs on the basis of the portfolio allocation.

[3] The coherence between the triptych of documents is as follows: After the risk assessment has examined which risks may occur, the preventive action plan describes the measures taken to eliminate or limit these risks. Finally, the emergency plan indicates what measures will be taken if the risks do occur and lead to a disruption of the gas supply. In this regard, see Articles 7(7), 9(11) and 10(2) of the EU Regulation.

The social effects of a disruption of the gas supply are often broader than the policy areas that fall under the responsibility of the Minister of Economic Affairs and Climate Policy. Addressing these effects is not the subject of the BH-G. These effects will have to be addressed in close cooperation with the parties involved. The National Gas Crisis Plan (Appendix to Parliamentary Paper 29 023, no. 283) lays down agreements on broader crisis management in the context of a gas crisis.

The BH-G is composed of the mandatory parts of the model for the emergency plan in the EU regulation, including a description of the Dutch crisis organisation and management structure.

Purpose and target group

The BH-G indicates how to act in the preparation for, combating and controlling a significant deterioration in the gas supply situation. It does this by:

1. ***Provide insight*** into the parties involved in combating a significant deterioration of the gas supply situation, the distribution of roles, tasks, responsibilities and powers between those parties, the crisis structure during a gas crisis, and how the control and implementation processes work in the event of a significant deterioration of the gas supply situation.
2. ***Provide a methodology*** for making choices and taking measures during a significant deterioration of the gas supply situation. The use of measures depends on the context in which the crisis occurs, so the BH-G offers a handle for the consideration of measures. There is no binding order in which measures must be used.

The BH-G is intended for the 'decision-makers' within the Ministry of Economic Affairs and Climate Policy and at GTS during a significant deterioration of the gas supply situation. In addition, other parties involved, such as natural gas companies and electricity companies, are also part of the target group because it describes the roles and responsibilities of the parties involved. Finally, the BH-G aims to ensure security of supply for citizens and businesses and to create predictability and clarity in the event of a gas crisis. The BH-G is therefore there for society as a whole.

Scope of the BH-G

The measures described in the BH-G can be used if - in short - there is an (imminent) physical gas shortage. By deploying measures, the supply of and demand for gas can be brought back into balance, so that sufficient gas remains available for (protected) customers and this gas can also continue to be supplied to the customers concerned. To this end, it is necessary that the gas transport and distribution network continues to function from a technical point of view.

The measures in the BH-G focus on the demand side and are explicitly instruments to temporarily reduce gas consumption by customers in order to combat a significant imminent or actual deterioration of the gas supply situation. The emergency plan therefore does not contain a policy to structurally reduce gas consumption. This is part of regular energy saving and energy transition policy and falls outside the scope of the BH-G. It is possible that instruments of the BH-G overlap with regular incentive measures, but they cannot be used for structural energy saving objectives.[4] This does not alter the fact that, in order to improve security of supply, it is important to focus

[4] For example, "Flip the Switch as well."

structurally on both energy savings and the development and roll-out of alternative energy sources.

The gas market has become restless due to various developments in recent years, resulting in volatile gas prices. Causes can be found in the field of geopolitics (the almost complete termination of the supply of Russian gas after the Russian invasion of Ukraine), economy (such as the development of the gas market after the covid-19 crisis) and the decline in the domestic supply of gas (less production from the small gas fields, commitment to ending gas extraction in Groningen). On the other hand, more LNG capacity has become available in recent years and alternative (sustainable) energy sources are being used. Measures in the BH-G are not suitable (or intended) to mitigate any negative consequences of a volatile gas market (such as high energy prices). There may be other government measures available for this purpose that can be taken outside of the BH-G and for which a standalone assessment must be made. The measures in this emergency plan are aimed at preventing or combating the consequences of an (imminent) serious physical shortage of gas in order to guarantee the supply of gas to customers (protected by solidarity) for as long as possible.

Different scenarios of a gas crisis are conceivable, making one measure more appropriate (i.e. more effective and/or efficient) in certain situations than another. This depends on the supply situation at that time and the nature, cause and duration of a gas crisis. In general, it can be said that the available BH-G measures for combating an emergency are not suitable in the event of a very acute emergency. In such a situation, the first thing to ensure is that the operation of the Dutch gas network is stabilized quickly (within a few hours) (i.e.dat sufficient pressure on the transmission network remains) to ensure that gas can continue to be transported to customers. In the event of an imbalance in the gas transport network, the measures for maintaining the balance described in the Gas Transmission Code LNB (section 4.1.4 Daily balance maintenance) come into effect. These measures are part of the market-based measures that can be used by GTS to combat a gas crisis.

In addition to the market-based measures, additional measures may be necessary to bring customer demand into line with the remaining available supply in the slightly longer term (not hours, but days/weeks or even several months). This is provided for in the measures included in the BH-G to combat an emergency situation. These measures have a response time of a few days to weeks.

Relation to other crisis plans

Within the Ministry of Economic Affairs and Climate Policy, the Departmental Handbook on Crisis Decision Making is the overarching handbook. This handbook describes the structure and working methods at departmental level and connects the crisis structure of the Ministry of Economic Affairs and Climate Policy with the interdepartmental crisis structure. Specific manuals were then drawn up for each policy topic, risk or threat. This is where the approach for a particular theme or type of crisis is further elaborated.

From an organizational point of view, the BH-G falls under the Directorate-General for Climate & Energy (DG K&E) of the Ministry of Economic Affairs and Climate Policy and has been drawn up in collaboration with its crisis partners.

Interdepartmentally, specifically at the national level, there are the National Crisis Decision Making Manual and the National Gas Crisis Plan (NCP-G). The National Handbook on Crisis Decision-Making is the policy framework and framework for all planning and preparation by the central government and its crisis partners for specific crises. It is the national equivalent of the Departmental Manual on Crisis Decision-Making of the Ministry of Economic Affairs and Climate Policy. The NCP-G focuses on preventing and limiting the social disruption caused by a gas crisis and the chain effects of a disruption of gas supply. The BH-G contains the measures that the Minister for K&E can take in the event of an (imminent) serious gas shortage in order to prevent or combat this (imminent) serious gas shortage.

The BH-G is leading in the (administrative) approach to a crisis insofar as it concerns the approach to gas scarcity by the energy sector (such as producers, traders, energy companies and industrial gas customers); the NCP-G is leading as far as tackling the social effects of the gas shortage is concerned.

Status and maintenance

The management of the BH-G lies with the Ministry of Economic Affairs and Climate Policy. As a contingency plan within the meaning of Article 8(2) of the EU Regulation, the BH-G must be updated every four years after 1 March 2019, or more often if circumstances warrant it or the Commission so requests (Article 10(2) of the EU Regulation). Partly against this background, the Ministry of Economic Affairs and Climate Policy reviews annually whether the BH-G needs to be amended.

In the transition to a climate-neutral energy system, the role of natural gas will become increasingly smaller. While the energy chains for the future energy system are being built, the use of natural gas is being phased out. Against this background, too, it is reviewed annually whether and how the BH-G should be adapted to the current situation.

Reading guide

The BH-G is structured in accordance with the model for an emergency plan in Annex VII of the EU Regulation.

Continuation

The adoption of mandatory measures to combat an emergency situation, as referred to in Article 11, paragraph 1 of the EU Regulation, depends on invoking state emergency law, such as the Distribution Act. In the event of large-scale gas shortages that lead to an emergency situation, it is desirable to provide a basis for the adoption of mandatory measures in regular legislation and regulations. A bill to this effect is being prepared.

1. Definition of crisis levels

1.1 General

The aim of the EU regulation is to ensure the security of gas supply. From that perspective, this regulation is the most important framework for this BH-G. The EU regulation introduces several measures to ensure the proper and continuous functioning of the internal gas market. The EU Regulation also provides for the establishment of a number of mechanisms – including the solidarity mechanism (Article 13 of the EU Regulation) – by which it obliges Member States to conclude arrangements in the area of security of gas supply with each other.

For example, the EU Regulation obliges the competent authorities of the Member States to draw up a contingency plan to eliminate or limit the effects of a gas supply disruption (Article 8(2)(b) of the EU Regulation).[5] Article 10(1) of the EU Regulation lists the topics that the emergency plan – per crisis level ('early warning', 'alert' and 'emergency') – must address. These include:

- Roles and responsibilities of stakeholders and stakeholders.
- Technical and legal arrangements to prevent unnecessary gas consumption by customers who are connected to the gas distribution or transmission network but are not protected customers.
- The measures and actions taken to mitigate the potential impact of a supply disruption.
- Cooperation with other Member States (regional chapters by risk group) and the implementation of the solidarity mechanism; and accessibility of information, information flows and reporting obligations.

1.2 Crisis levels

Article 11(1) of the EU Regulation distinguishes between the following three crisis levels:

a. Early warning level (*'early warning'):* where concrete, serious and reliable information indicates that an event may occur that could significantly worsen the gas supply situation and lead to the emergence of an alert or emergency level; the early warning level may be triggered by an early warning mechanism.
b. Alert level ('alert'): when there is a gas supply disruption or exceptionally high gas demand that significantly worsens the gas supply situation, but the market is still able to cope with this disruption or demand without having to resort to non-market-based measures.
c. Emergency level ('emergency'): where there is exceptionally high gas demand, a significant disruption of gas supply or any other significant deterioration of the gas supply situation, and all relevant market-based measures have been applied but the gas supply is not sufficient to meet the remaining gas demand and therefore additional non-market-based measures should also be taken, in particular to ensure gas supplies to protected customers in accordance with Article 6 of the EU Regulation.

[5] The regulation also requires a national risk assessment and a preventive action plan. In addition, 'regional' risk assessments and regional chapters of the preventive action plan and emergency plan are also written in risk groups.

1.3 Competent authority

The Minister for K&E is the competent authority for the national gas supply. Article 52ab(1) of the Gas Act designates the Minister of Economic Affairs and Climate Policy as the competent authority within the meaning of Article 3(2) of the EU Regulation. However, due to the division of portfolios between the ministers in the cabinet, the Minister for Climate and Energy is the responsible and competent minister for this subject at the time of adoption of this BH-G.[6] The Minister for K&E is therefore responsible for the proclamation of each of the crisis levels referred to in Article 11, paragraph 1 of the EU Regulation and the procedures to be followed for each level for those proclamations. The Director-General for Climate and Energy (DG K&E) acts as crisis manager for gas and electricity (CGE) on behalf of the Minister of Economic Affairs and Climate Policy. The CGE will then inform the Commission and the Member States immediately surrounding it and the National Crisis Centre (NCC).

On the basis of his statutory powers, the Minister for K&E will have to be able to provide guidance to GTS and other parties involved, for example on how to act in the event of crises in the gas supply. For example, the Minister for K&E can give an order to take a non-market-based measure.

If the gas shortage is (or threatens to become) so long-term and of such proportions that there is an emergency within the meaning of the EU Regulation, non-market-based measures can be taken to combat the effects of such an emergency. The BH-G measures are intended to provide a temporary solution, after which either the situation returns to normal (as before the declaration of the emergency) or structural measures are taken to deal with the new situation in a sustainable way. At present, regular national laws and regulations do not provide for sufficient powers to take mandatory measures in this context. However, in order to be able to take such measures, the powers offered by state emergency law can be used in an emergency situation (e.g. the Distribution Act, the Requisition Act).

1.4 Protected customers and solidarity-protected customers

An important element is that the contingency plan should pay particular attention to the protection of certain groups of customers, including households and customers providing essential social services. Article 2(5) of the EU Regulation provides a definition of this:

> (5) "protected customer" means a household customer connected to a gas distribution network and, if the Member State concerned so decides, where appropriate, provided that the undertakings or entities referred to in points (a) and (b) do not together represent more than 20% of the total annual final consumption of gas in that Member State:
>
> a) Small and medium-sized enterprises, provided that they are connected to a gas distribution network;
> b) Essential social services, provided that they are connected to a gas distribution or transmission network;

[6] When a new cabinet takes office, it must be determined to whose portfolio this subject belongs on the basis of the portfolio allocation.

c) District heating installations, to the extent that they provide heating to household customers, small and medium-sized enterprises or essential social services, provided that these installations cannot switch to fuels other than gas.

EU Member States can therefore decide to designate small and medium-sized enterprises as protected if, together with the essential social services identified as protected, they do not account for more than 20% of the total annual end-use of gas in that Member State.

In addition, the measures set out in the emergency plan should ensure that supplies to so-called solidarity-protected customers are maintained for as long as possible. This group consists partially of customers who are defined as protected in a Member State. It is only for this group of customers that the Member State can rely on the solidarity of other Member States for the supply of gas. According to the definition in Article 2(6) of the EU Regulation:

(6) "solidarity-protected customer" means a household customer connected to a gas distribution network; It may also include one or both of the following:

a) District heating installations, in so far as they are protected customers in the Member State concerned and only to the extent that they supply heating to domestic customers or essential social services, with the exception of education and public services, and/or
b) Essential social services, insofar as they are protected recipients in the Member State concerned, with the exception of education and public services.

The Netherlands has not yet made use of the possibility to designate district heating installations and essential social services as solidarity-protected customers, in line with the definition.

1.5 Crisis procedures for the declaration of crisis levels

In the fight against a significant deterioration of the gas supply (gas crisis with a need to scale up), different processes can be distinguished. The processes of signaling and declaring the crisis levels of early warning, alarm and emergency are described below. The crisis levels are shown

schematically in

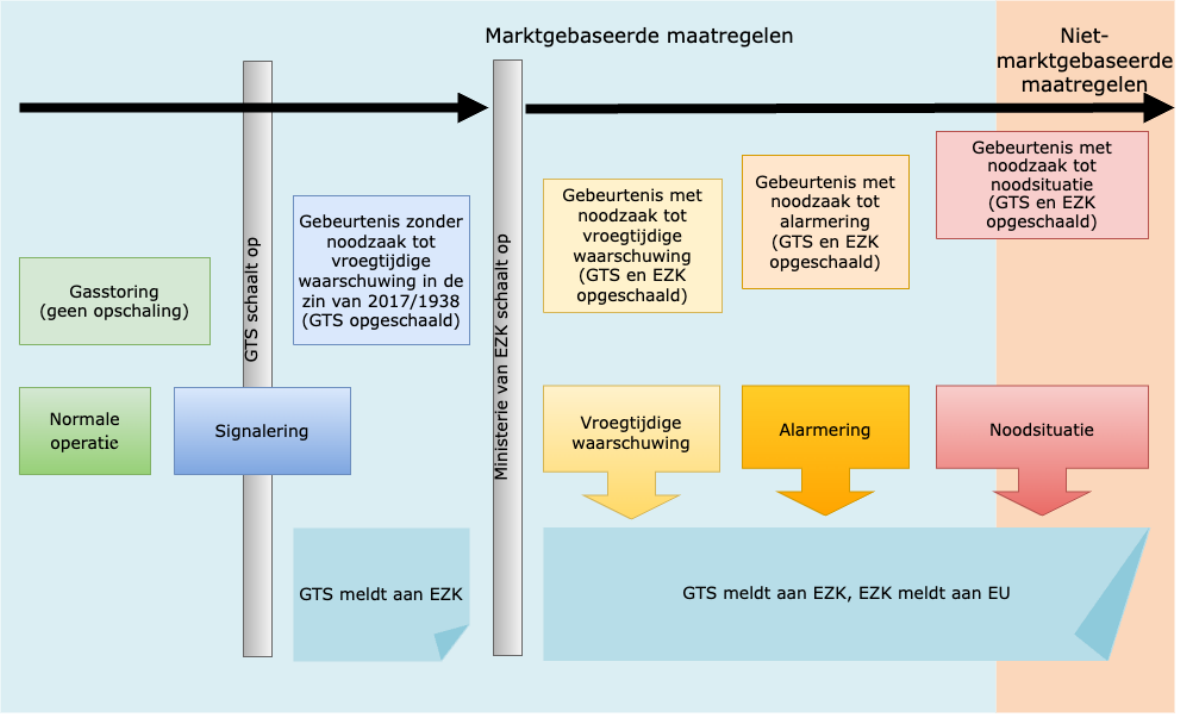

Figure 1. The following sections describe the crisis levels and procedures.

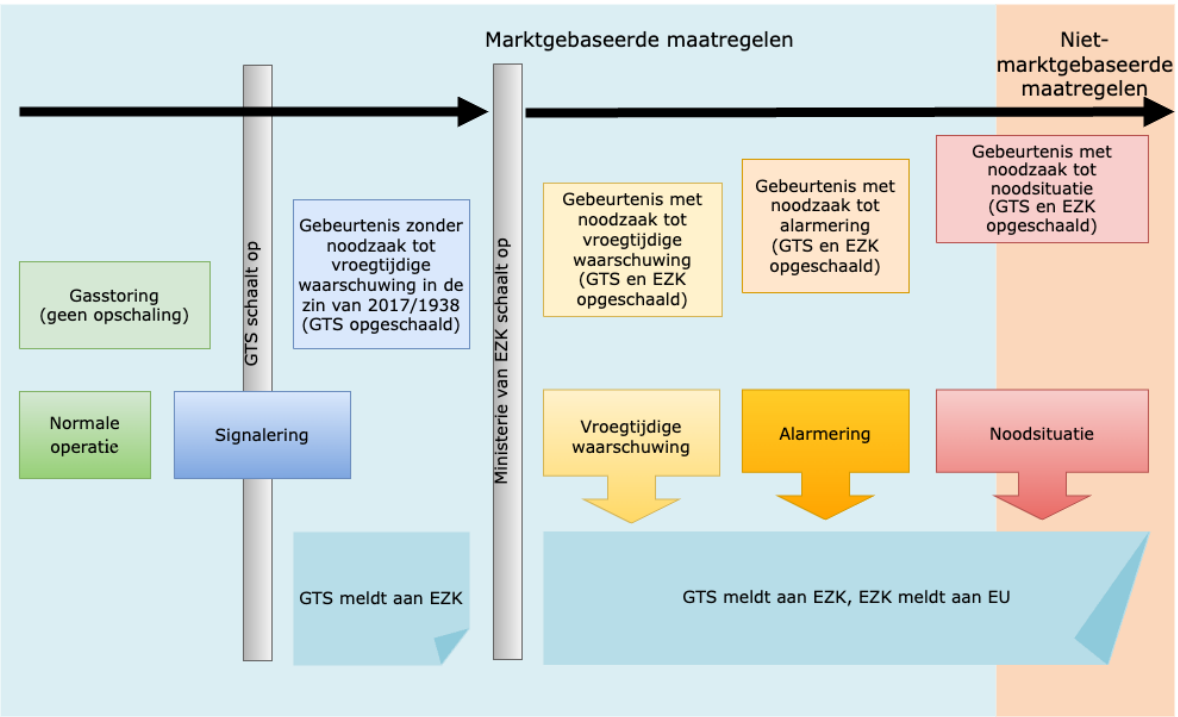

Figure 1. Crisis levels and related types of measures and notifications to the EU.

1.5.1 Signaling

Because the gas supply is part of the vital infrastructure, GTS informs the Departmental Crisis Centre (DCC-EZK) about (imminent) disruptions to the gas supply that are serious enough for the national grid operator to scale up, even if they do not lead to the emergence of an alarm or emergency level. GTS does not inform the DCC-EZK if the situation is estimated to be small-scale and manageable (regular gas failures). The measures taken by GTS are market-based measures. GTS takes these measures on the basis of its powers under the Gas Transmission Code LNB. In this situation, there is no need to report to the European Commission's Directorate-General for Energy.

In this phase, the Ministry of Economic Affairs and Climate Policy is aware of what is going on and can react alertly if the situation becomes more serious.

The contact at an alert is shown schematically in the figure below.

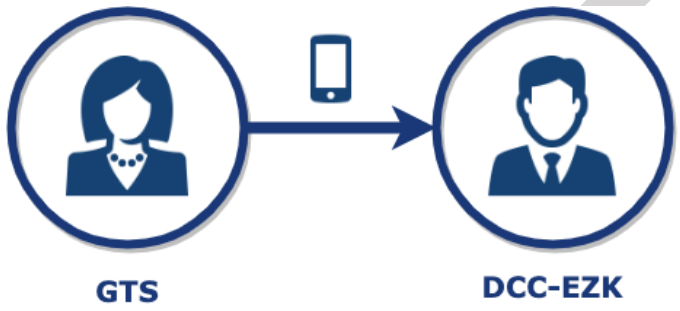

Figure 2. Schematic representation of signaling.

1.5.2 Early Warning

According to Article 11 of the EU Regulation, an early warning is required when *concrete, serious and reliable information indicates that an event may occur that could significantly worsen the gas supply situation and lead to the emergence of an alert or an emergency level*.

In the situation described above, in the event of a gas crisis or the threat of, GTS, or any other body that identifies it, issues a warning as soon as possible to the DCC-EZK and, through it, to DG K&E in its role as CGE.

The Minister for K&E, as the competent authority, decides on the declaration of an early warning crisis level. After the early warning level has been declared by MKE, this is immediately reported via the CGE to the Directorate-General for Energy of the European Commission and to the

competent authorities of the Member States connected to the Dutch gas network, namely Germany and[7] Belgium[8]. In the case of low-calorific gas, the competent authority of France is also informed[9].

The contact in the early warning crisis level phase is shown schematically in the figure below:

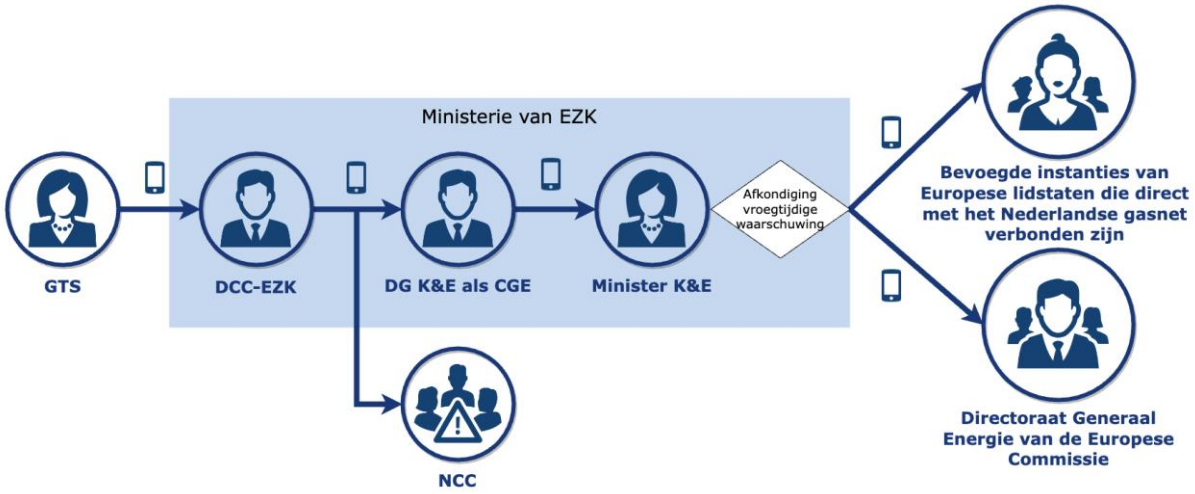

Figure 3. Schematic display of early warning

The early warning notification ensures that the European Commission's DG Energy is informed as soon as possible and can shape the exchange of information on the approach at European level. Member States are also informed at an early stage and can take their own measures to prepare for a significant deterioration in the gas supply situation.

1.5.3 Alert

The alert level applies when an event occurs leading to an actual disruption of gas supply or exceptionally high gas demand that significantly worsens the gas supply situation, but the market is still able to cope with this disruption or demand (Article 11 of the EU Regulation).

In the situation described above, GTS issues a warning as soon as possible to the DCC-EZK and, through it, to DG K&E in its role as CGE.

The Minister for K&E, as the competent authority, decides on the declaration of a crisis level alert. After the declaration of the alert level by MKE, the CGE immediately reports this to the Directorate-General for Energy of the European Commission and to the competent authorities in the Member States directly connected to the Dutch gas network (Germany and Belgium). Through its

[7] In Germany, the competent authority is Bundesnetzagentur (BNetzA).

[8] In Belgium, the competent authority is the Directorate-General for Energy of the Federal Public Service Economy, SMEs, Self-Employed and Energy.

[9] De bevoegde instantie in Frankrijk is het Ministry for the Ecological and Inclusive Transition, Directorate-General for Energy and Climate.

dispatching center, GTS informs the dispatching centers of grid operators in neighboring countries. In the case of low-calorific gas, the competent authority of France is also informed.

The contact in the phase of the crisis level alarm is shown schematically below:

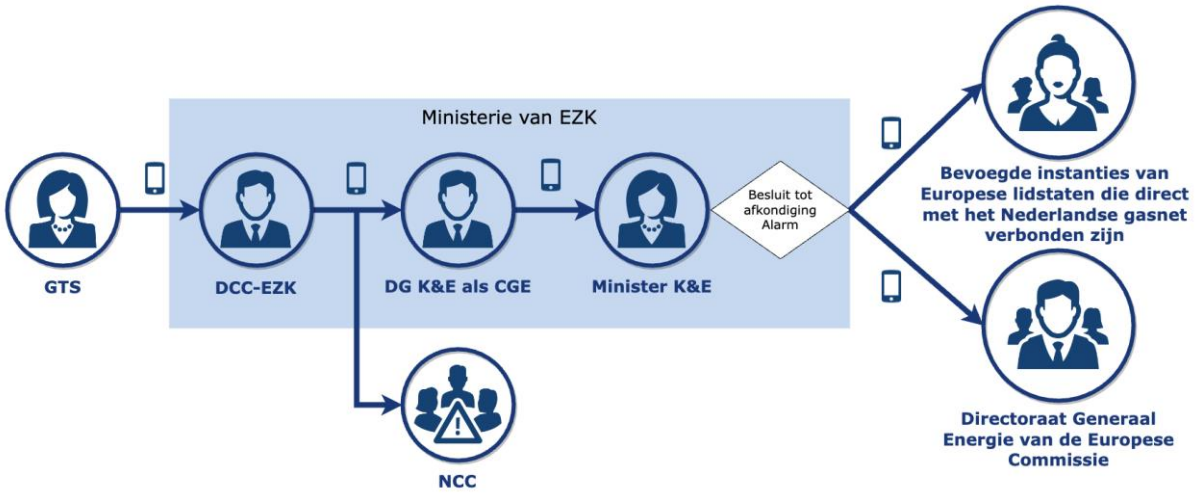

Figure 4. Schematic view upscaling/declaring alarm level.

1.5.4 Emergency

In a situation where there is an exceptionally high gas demand, a significant disruption of gas supply or any other significant deterioration of the gas supply situation, and all relevant market-based measures have been applied, but the gas supply is not sufficient to meet the remaining gas demand and therefore additional non-market-based measures have to be taken, there is a gas crisis with the need to declare an emergency: an emergency situation within the meaning of the EU Regulation.

GTS informs the DCC-EZK and, through it, the DG K&E of the situation. The Minister for K&E, as the competent authority, decides on the declaration of the emergency crisis level. DG K&E, in its role as CGE, then reports the declaration of a crisis level emergency to the European Commission's Directorate-General for Energy in accordance with the EU regulation.

The competent authorities in the European Member States that are directly connected to the Dutch gas network are then also informed immediately by DG K&E. Through its dispatching center, GTS informs the dispatching centers of grid operators in neighboring countries. In the case of low-calorific gas, the competent authority of France is also informed. Where a call may result in a call for assistance from the European Union, DG K&E shall also notify the Emergency Response Coordination Centre (ERCC[10]).

[10] Emergency Response Coordination Centre – ERCC, see Article 11(2) of the European Regulation.

The contact in the emergency crisis level phase is shown schematically below:

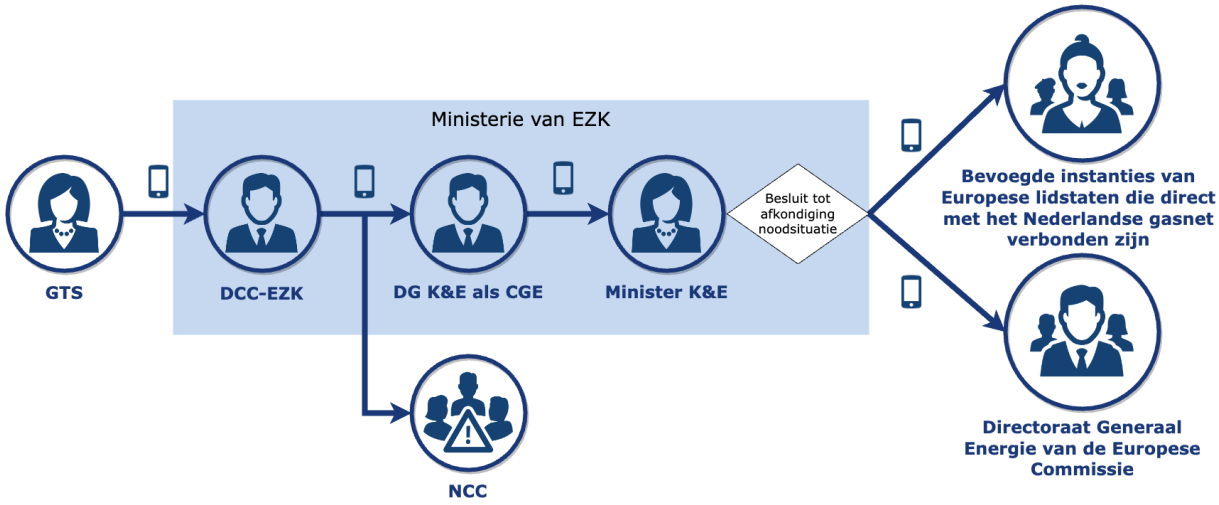

Figure 5. Schematic representation of the declaration of emergency level.

1.6 Indicators for the declaration of crisis levels

An (imminent) physical shortage of gas can be the result of a disruption in the gas supply (supply side). This could include a failure of gas infrastructure, such as a gas storage, pipeline or Liquid Natural Gas (LNG) terminal, or a geopolitical cause for a supply interruption resulting in lower supply on the Western European market. A shortage can also be the result of exceptionally high gas demand, for example during a period of extreme cold or as a result of a failure of electricity production.

The security of gas supply situation is therefore influenced on the one hand by specific developments of an incidental and/or acute nature (such as the failure of infrastructure), and on the other hand by circumstances that have a more gradual impact on the security of gas supply (the availability of sufficient gas volume).

In the BH-G, eight scenario drivers are distinguished on the basis of which the nature and severity of an (imminent) shortage can be typified. In particular, four drivers are decisive for assessing whether it is necessary to declare a crisis level (and if so, at what level):

1. Volume (remaining scarcity);
2. Urgency (response time measures);
3. Type of disruption (production, transport, conversion, import); and
4. Type of natural gas (high or low calorific).

The other four scenario drivers are relevant for characterizing the impact of the gas shortage:

5. Duration of the gas crisis;
6. Location of the source (domestic or foreign);
7. Season; and
8. Timing (morning/afternoon/evening/night)

In the 'normal operations' phase, information from GTS is used to assess the conditions on the gas market. Whether there is an (imminent) significant deterioration in the gas supply situation is assessed in the first place on the basis of the question whether there is an (imminent) physical shortage of gas in the system. The indicator used for this is the System Balance Signal (SBS). This indicates on an hourly basis whether the expected supply and demand are in balance. GTS publishes the SBS on its website.[11]

In combating the shortage, GTS will act within the possibilities of the Gas Transmission Code LNB, with the aim of balancing the gas supply situation.[12] If necessary, GTS will inform the Ministry of Economic Affairs and Climate Policy of the situation. This is called an alert.

If there is an (imminent) physical shortage of gas, it is then assessed whether this imminent shortage is so significant and long-term that it can lead to the occurrence of an alarm or emergency level. As soon as a crisis situation threatens, the appropriate crisis structure is activated and (depending on the seriousness of the situation) GTS shares an assessment of the gas supply situation with the CGE periodically, weekly or daily.

The CGE chairs a crisis team in which all information and advice are collected, assessed integrally and in which decision-making is prepared with regard to the crisis level and the measures to be taken. This concerns information and advice on the (expected) development of supply and demand on the gas market.

Below is a detailed description of the provision of information, on the basis of which the so-called 'departmental overall picture' is formed and the competent authority can decide to declare a certain crisis level and on the basis of which it is decided to deploy measures.

1.7 Information

Information is essential during an incident or crisis/emergency to be able to make the right choices. In principle, the required information is the same for all crisis teams at the parties involved (EZK & GTS), but may differ in level of abstraction and level of detail. As far as the **situation** itself is concerned, information should be provided at least on:

- Date and time of the start of the undesirable event.
  - Season
  - Time of day
- Description of the undesirable event
  - Location and situation on site
  - Type of natural gas (high or low calorific)
  - Adverse Event Type: Involves Import, Transportation, Conversion, or Production
  - Volume of deficit
- Cause of the undesirable event.
  - Domestic or foreign
  - Wanton or not wanton

[11] System Balance Signal (SBS) on the GTS website.

[12] Transportcode Gas LNB URL: https://wetten.overheid.nl/BWBR0037950/2023-03-11.

- Context of the undesirable event.
    - Current gas demand (volume, type)
    - Current exports (volume, type) abroad
    - Any special circumstances, such as limitations in transport capacity, with a cause beyond the undesirable event.
    - Electricity supply status.
- Effects of the undesirable event
    - Direct effects (location of effects, type of customers affected, damage, nuisance, effects on the transmission and distribution network)
    - Effects of measures already taken (location of effects, type of customers affected, damage, nuisance, effects on the transmission and distribution network)
    - Expected effects of measures (location of effects, type of customers affected, damage, nuisance, effects on the transmission and distribution network).

Most of the information about the incident will be known to GTS. GTS will share this information (via the liaison) with the Ministry of Economic Affairs and Climate Policy.

As far as combating **the situation is** concerned, the following information is required:

- Inventory of the teams and parties involved
    - Which parties are involved?
    - Which teams have been scaled up at these parties? And at what level of upscaling?
- Decisions taken and opinions. What decisions have already been taken by the active teams?
- Measures
    - What measures have been taken as a result of the decisions taken?
    - At what stage is the implementation of the measures?

Finally, **forecasts and advice** can add valuable information to decision-making. This mainly concerns forecasts of the development of the incident and its response, and advice resulting from these forecasts. This includes the urgency, the expected duration of the deterioration of the gas supply and the expected deployment of manpower and resources.

Prognosis

- Expected duration of the undesirable situation
- Expected duration and development of the volume deficit
- Expected duration of effects
- Expected effects of decisions and measures
- Expected duration of recovery from the situation
- Expected required deployment of manpower and resources
- Expected bottlenecks around available manpower and resources

In the event of an alarm or emergency level, the provision of information is often largely dependent on GTS's picture of the situation. GTS has the information necessary to assess the extent, severity and expected duration of the situation. If necessary, some of this information can also come from other parties, such as the operator of an LNG terminal or gas storage facility.

In addition to the information collected by GTS, the Ministry of Economic Affairs and Climate Policy also produces a communication picture and the NCC a national picture (ministries, Security Region,

vital infrastructure). These two images are used to form a departmental overall picture of the situation. This is in Figure 6 Showing:

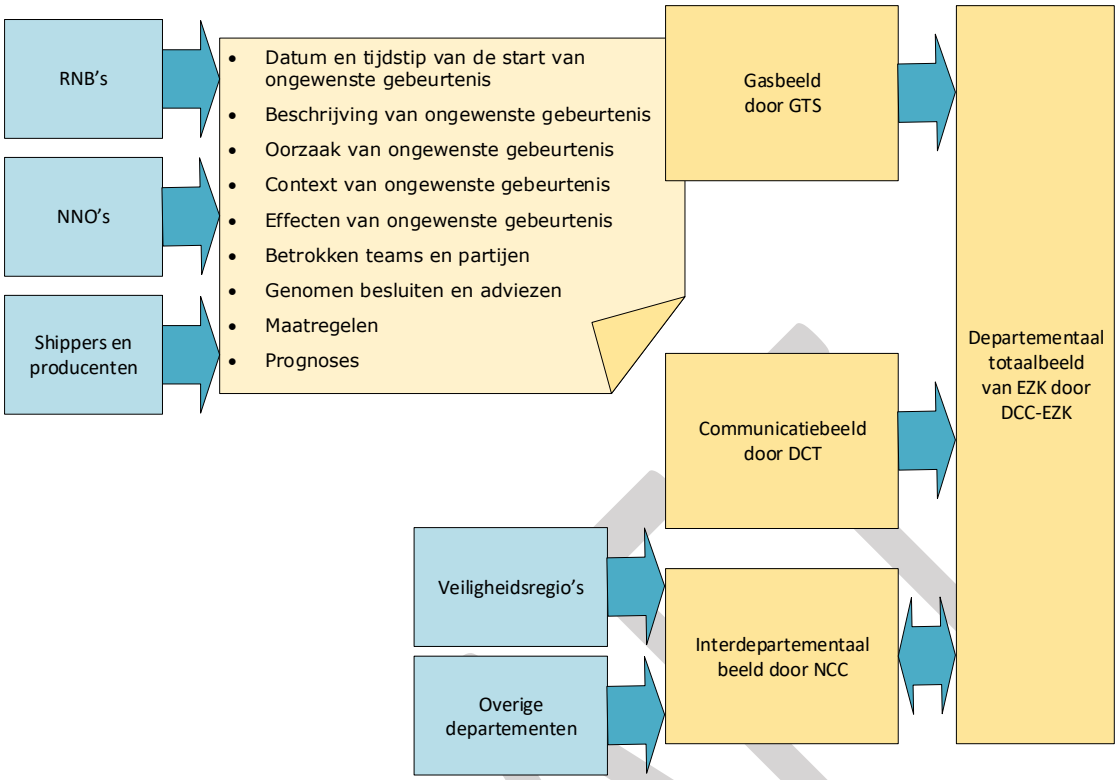

Figure 6. Formation of a departmental overall picture.

The provision of information from GTS to the Ministry of Economic Affairs and Climate Policy takes place regardless of the level of the situation (early warning, alert level or emergency level).

The information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the Interdepartmental Coordination Consultation (ILO), the Interdepartmental Committee on Crisis Management (ICCb) and the Ministerial Committee on Crisis Management (MCCb). The departmental overall picture consists of the types of information shown above.

Article 14 of the EU Regulation specifies the data to be exchanged between the relevant natural gas undertakings (such as regional network operators (DSOs), storage operators, LNG facility managers, programme responsible parties and producers) and the competent authority of the Member State concerned in crisis situations. In practice, this will be done via GTS to DCC-EZK (see above). In particular, the natural gas undertakings concerned shall make available on a daily basis (or as often or more often as agreed by the parties concerned) the following information:

- The forecasts of daily gas demand and gas supply for the next three days.
- 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 grid
- The period for which gas supply to protected customers can be expected to be ensured.

2 Measures per crisis level

2.1 General

The measures described in the BH-G can be used if - in short - there is an (imminent) long-term physical gas shortage. The BH-G contains a set of measures for each level of crisis. A distinction is made between market-based and non-market-based measures. In addition, a distinction is made between voluntary and mandatory measures.

The responsibility for keeping the gas transport network in balance - importing as much gas as extracting it from the gas transport network - lies with the market parties, including GTS. If the entire transmission grid becomes unbalanced, market parties can intervene themselves by feeding in gas or extracting it from the transmission grid. If this does not have sufficient effect and the imbalance increases too far, a market-based correction mechanism is triggered. GTS then intervenes with so-called market-based measures on the basis of the Transmission code Gas LNB (section 4.1.4.4 Actions related to an emergency[13]). These market-based measures are described in Section 2.2 and do not have a fixed order. The market-based measures can be taken as part of normal business operations, as well as during the early warning, alert and emergency crisis levels.

In addition, a Member State may also use non-market-based measures to combat an emergency. What are non-market-based measures is not defined by the EU Regulation, but an indicative list is included in Annex VIII to the EU Regulation.[14]

The Netherlands has included the non-market-based measures to combat the emergency described in a ladder of measures in section 2.5. The order in which the measures to combat an emergency are included in the ladder determines the order in which the measures must be considered. The measures are classified from the lightest to the heaviest measure in terms of the social impact of the measure itself and taking into account the practicality of the measures and framework conditions from the EU regulation.

In this way, the BH-G provides insight and predictability into the way in which the various levels of a gas crisis can be combated and which social groups are affected by the measures and when. Depending on the situation, the crisis levels can follow each other in rapid succession over time. It is possible that the measures will not be implemented at all levels respectively.

[13] This is an emergency within the definition of the Gas Transmission Code LNB and not an emergency situation such as the third and highest crisis level mentioned in Regulation 2017/1938.

[14] Regulation 2017/1938.

2.2 Normal operations GTS

Balance

GTS's gas network must be constantly balanced in order to be able to transport the gas safely and efficiently. 'Balanced' means that the transmission network remains at the right pressure and that, on balance, no more gas is withdrawn from the grid than is fed in, or vice versa. GTS uses a balancing regime for this. If an imbalance occurs in the system, a correction mechanism is activated and gas is bought or sold on the Within Day Market of ICE Endex. We call this a balancing action or Within-Day-Balancing-Action (WDBA). The way in which the balancing regime works is explained in detail on the GTS website.[15]

Signal

Because the gas supply is part of the vital infrastructure, GTS informs the DCC-EZK about (imminent) disruptions to the gas supply that are serious enough for the national grid operator to scale up for them, even if they do not yet lead to the emergence of an alarm or emergency level. This is called an alert.

If there is a temporary undesirable reduction or interruption in the supply of gas and the balancing regime does not do its job sufficiently, GTS can take measures that fall within the usual market mechanisms to match supply and demand. GTS makes an assessment of the manageability (such as the extent and duration of the interruption) and the effects of applying the measures in the transport code. A disruption of the balance on the gas transport network is therefore not immediately estimated to be of such an order that it must be scaled up to one of the crisis levels set out in the EU regulation.

In the event of a deterioration in the gas supply, GTS will be able to scale up internally to a higher crisis level. GTS has laid down in the Business Continuity Plan when it will be scaled up and down. The Strategic Crisis Team (SCT) and the Tactical Crisis Team (TCT) can be scaled up as soon as a gas failure (signaling situation) occurs.

As soon as GTS gives a signal to the Ministry of Economic Affairs and Climate Policy about the supply situation, GTS still considers this situation manageable, partly due to the taking of market-based measures. In that case, there is no need to report to the European Commission's Directorate-General for Energy. At this stage, the Ministry of Economic Affairs and Climate Policy is aware of what is going on and can react quickly if the situation becomes more serious. If necessary, the Minister for Climate and Energy can already take additional measures, such as having crisis exercises carried out (again) and drawing up current scenarios. It is also possible to focus extra on energy savings in the context of regular policy. These are actions outside the BH-G.

The market-based measures available to GTS are described below and do not have a fixed order. They are denoted by the letter code TC, which stands for transport code. In principle, these measures will be used for a short period of time to keep the gas transport network operational. GTS will try as much as possible to prevent (in other words: only use in extreme necessity) that

[15] Balancing regime › Gasunie Transport Services.

these measures are (or have to be) taken, as they may result in a restriction of the supply to market parties (both end users and exports, excluding the use of storage facilities by market parties). It is always preferable that the market and the associated balancing mechanism are maintained, or with an appropriate size.

In the event of a long-term disruption of the supply of gas, the measures in the Gas Transmission Code LNB may become more structural in nature. It is up to ACM to assess whether GTS is still acting within its powers under the Gas Transmission Code (LNB). In principle, GTS may continue to use its powers under the Gas Transmission Code LNB as long as an "emergency situation" occurs within the meaning of Articles 4.1.4.1 or 4.1.4.5 of the Gas Transmission Code LNB. It is therefore possible for GTS to take the following market-based measures even if one of the crisis levels 'early warning', 'alert', and 'emergency' has been declared by the Minister for Climate and Energy.

Measure TC.1	**Use of GTS's own or contracted resources**
Description	GTS supplies gas from its own resources or from resources contracted with third parties.
Main actors involved	GTS Natural gas supplier(s)
Procedures to be followed	GTS deploys its own resources or makes use of resources that have been contracted with third parties (e.g. a contract with a storage facility).
Expected contribution	GTS's own resources can be used to the extent that natural gas reserves are available. Natural gas suppliers are obliged (insofar as this is stipulated in the contracts with GTS) to comply with the instruction(s). With these measures, GTS tries to maintain the physical balance in the gas network as far as possible. The funds contracted by GTS will not always be guaranteed to deliver results, because they are not always binding.
Information flows	Instruction from GTS to natural gas supplier(s).

Measure TC.2	**Non-binding request to Neighbouring Network Operators (NNOs) to voluntarily supply extra gas or to purchase less gas from the Netherlands**
Description	GTS requests Neighbouring Network Operators (NNOs) to voluntarily supply extra gas or to purchase less gas from the Netherlands.
Main actors involved	GTS Natural gas supplier(s) NNOs

Measure TC.2	Non-binding request to Neighbouring Network Operators (NNOs) to voluntarily supply extra gas or to purchase less gas from the Netherlands
Procedures to be followed	• GTS requests NNOs to temporarily supply (borrow) extra gas or to purchase less from the Netherlands. • If the balancing system can no longer function normally, the balancing mechanism is suspended.
Expected contribution	NNOs may want to temporarily supply extra gas (borrow) or purchase less on a voluntary basis. With this measure, GTS tries to maintain the physical balance in the gas network as far as possible. The chance that this measure will have an effect is limited. If there is a shortage of gas in the Netherlands and not in the neighbouring countries, extra gas will automatically flow to the Netherlands when the market is still working because of the actions of the market parties. If this does not happen, there will also be a shortage of gas in the surrounding countries.
Information flows	Non-binding request to NNOs by GTS.

Measure TC.3	Non-binding request to programme managers to voluntarily feed in more gas
Description	GTS requests programme managers to feed in more (high-calorific) gas. This is possible if GTS sees that programme managers are not yet using their maximum contracted transport capacity and additional input may be possible. The balancing regime will continue to function. This measure is based on voluntary contributions from those responsible for the programme.
Main actors involved	• GTS • Programme Managers with Contracts at Physical Entry Points
Procedures to be followed	• GTS requests one or more parties responsible for the programme to feed in additional gas from storage facilities, border points, production points or LNG and to market this gas.
Expected contribution	Since it concerns a request for additional supply/marketing, the contribution depends on the willingness and ability of the parties to feed in additional gas. The contribution is likely to be small, as the parties will have already voluntarily exploited their potential to the maximum due to high market prices.
Information flows	Non-binding request from GTS to programme responsible parties at storage facilities, border points, production points or LNG installations.

Measure TC.4	Instructions on gas or LNG storage facilities and at domestic entry points of the national gas transport network
Description	GTS issues an instruction to stop filling or supplying from the stocks in gas storages or to supply from production sources that are not yet supplying at their maximum. This designation is given to programme responsible parties who have stored gas or who can supply additional gas from domestic production sources.
	• GTS • Programme managers who have stored gas in gas storage facilities • Programme managers who can supply additional gas from domestic production sources
Procedures to be followed	• GTS can suspend the process of balancing via the WDM (Within Day Market). • GTS instructs one or more programme managers to supply a certain amount of gas in addition (or to stop filling gas storages)
Expected contribution	Programme managers are obliged to follow the instruction(s). This allows the balance to be restored. Depending on the origin of the gas crisis, GTS will use this measure sparingly. If the gas crisis is going to last a long time, it may be gas that cannot be missed later during the gas crisis.
Information flows	Instruction from GTS to program managers.

2.3 Early warning level

According to Article 11 of the EU Regulation, an early warning is required when *concrete, serious and reliable information indicates that an event may occur that could significantly worsen the gas supply situation and lead to the emergence of an alert or an emergency level*.

In the situation described above, in the event of a gas crisis or the threat of, GTS, or any other body that identifies it, issues a warning as soon as possible to the DCC-EZK and, through it, to DG K&E in its role as CGE. The Minister for K&E is responsible for declaring the crisis level for *early warning as* referred to in Article 11, paragraph 1 of the EU Regulation and the procedures to be followed.

Through the CGE, the European Commission's Directorate-General for Energy receives an early warning immediately in the event of a gas crisis or the threat of a gas crisis, and the competent authorities in the European Member States that are directly connected to the Dutch gas network are informed without delay. In the case of low-calorific gas, the competent authority of France is also informed.

If the crisis team judges that there is a significant imminent gas shortage that could lead to an alarm or emergency situation, the supply situation will be monitored more intensively. The measures provided for by the BH-G for this crisis level include an obligation to provide information for natural gas companies and a first call to reduce energy consumption. These measures are identified by the letter A (e.g. A.1) in accordance with the first crisis level of the Regulation. The aim of measure A.1 is to be able to quickly prepare for more far-reaching decision-making (scaling up at crisis level) if the gas supply situation gives cause to do so. Measure A.2 has two objectives: with a call to reduce the use of natural gas and electricity, on the one hand, the entire society is informed about the gas supply situation and involved in combating an (imminent) gas shortage, and on the other hand, the savings potential of society as a whole is appealed to.

Measure A.1	Sharing information
Description	According to Article 14.1 of the EU Regulation, the gas companies concerned must make information available to the competent authority on a daily basis: • The forecasts of daily gas demand and gas supply for the next three days in million m3 per day (mcm/d). • The daily flow of gas, in million m3 per day (mcm/d), 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 grid. • The period, expressed in days, for which gas supply to protected customers can be expected to be ensured.
Main actors involved	GTS DCC-EZK DG K&E/CGE Gas companies involved
Procedures to be followed	In the situation described above, in the event of (the threat of) a gas crisis, GTS will pass on the aforementioned information as soon as possible to the DCC-EZK and, through it, to DG K&E in its role as CGE. To this end, GTS is provided with information by the gas companies concerned or uses information that it has at its disposal for this purpose.
Expected contribution	This measure ensures that the CGE is aware of the relevant information as soon as possible and can shape the exchange of information on the handling of a gas crisis at European level.
Information flows	• Information from the gas companies involved to GTS. • Information from GTS to DCC-EZK. • DCC-EZK passes on information to CGE.

Measure A.2	First call for energy use reduction
Description of the measure	With the announcement of the crisis level early warning, the Minister for K&E can make a first appeal to customers of gas and electricity, such as households and businesses, to use less energy, for example by turning down the heating. The aim is twofold: With a call to reduce the use of natural gas and electricity, on the one hand, the entire society is informed about the gas supply situation in this phase, and on the other hand, the savings potential of society as a whole is appealed to. This is useful in preparation for the possible announcement of more impactful measures once the situation worsens, and the measure itself is expected to contribute to improving the supply situation by saving gas.
Main actors involved	• Minister for K&E • National Crisis Centre (NCC) • National Core Team Crisis Communication (NKC) • National Grid Operator GTS • Regional Grid Operators • TenneT • Natural gas producers • National Operational Coordination Centre (LOCC) • Safety regions
Assessment of necessity	This measure is always considered in the event of a gas crisis requiring early warning and may be taken more than once.
Implementation procedure	**Execution** The implementation of this measure is the responsibility of the Communications Directorate (DC) of the Ministry of Economic Affairs and Climate Policy in collaboration with the NKC. Part of this is coordinating the communication of all parties involved, including at least GTS, regional grid operators, TenneT, natural gas producers and security regions. The CGE will assess who is best placed to call for a reduction in natural gas consumption. In view of the national interest, it makes sense for the Minister for K&E to make such an appeal. **Decision** **This measure is decided by the Minister** for K&E, prepared by the chair of the Departmental Policy Team (DBT) of the Ministry of Economic Affairs and Climate Policy in his role as CGE.

Measure A.2	First call for energy use reduction
Expected contribution	**Magnitude of the impact** The measure has an effect on all domestic gas demand. The share of this can be considerable, especially due to the gas demand from small-scale consumers on a winter's day. However, the extent cannot be predicted in advance. **Certainty of the effect** The measure will be more effective if there is sufficient reaction time. After all, a change in behaviour has to take place. If such a call has not been issued before, the certainty of the effect is uncertain.
Other effects	Because it is a voluntary measure, large negative effects are not likely.
Alignment with Article 11, paragraph 6 of the EU Regulation	Given the non-binding nature of the measure, the internal market is not unduly restricted. This measure does not affect gas supply in another Member State or cross-border access to infrastructure.
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

2.4 Alert level

According to Article 11(1)(b) of the EU Regulation, the alert level occurs when there is a disruption of gas supply or exceptionally high gas demand that significantly worsens the gas supply situation, but the market is still able to absorb this disruption or demand without having to resort to non-market-based measures.

In such a situation, GTS has scaled up and will initiate market-based measures within its statutory duties for the national gas supply. These are the same measures as described in paragraph 2.2 normal operations of GTS. There is, however, a difference in the intensity and duration of the measures taken during the crisis level alert.

During the alert crisis level, as well as during the 'early warning' crisis level, natural gas companies must make information available to the competent authorities on a daily basis on the basis of Article 14, paragraph 1 of the EU Regulation. The measures that can be specifically deployed during the crisis level alert are indicated by the letter B, in accordance with the regulation.

In addition, the Minister for K&E can choose to prepare the measures that can be taken in an emergency situation. In this way, the response time is shortened (the time required between the decision to deploy a measure and the moment that the measure has an effect). A good example of this is measure C.4 Savings Tender (see further section 2.5).

Measure B.1	**Additional call to reduce energy consumption**
Description of the measure	With the announcement of the crisis level alert, the Minister for K&E can make another appeal to customers of gas and electricity, such as households and businesses, to consume less energy. The aim is twofold: On the one hand, a call to reduce the use of natural gas and electricity informs society as a whole (once again) about the gas supply situation. This is useful in preparation for the possible announcement of more impactful measures as soon as the situation worsens. On the other hand, the measure itself is expected to contribute to improving the supply situation by saving gas.
Main actors involved	• Minister for K&E • National Crisis Centre (NCC) • National Core Team Crisis Communication (NKC) • National Grid Operator GTS • Regional Grid Operators • TenneT • Natural gas producers • National Operational Coordination Centre (LOCC) • Safety regions
Assessment of necessity	This measure is always considered in the event of a gas crisis requiring the declaration of an alert level and may be taken more than once.

Measure B.1	Additional call to reduce energy consumption
Implementation procedure	**Execution** The implementation of this measure is the responsibility of the Communications Directorate (DC) of the Ministry of Economic Affairs and Climate Policy in collaboration with the NKC. Part of this is coordinating the communication of all parties involved, including at least GTS, regional grid operators, TenneT, natural gas producers and security regions. The CGE will assess who is best placed to call for a reduction in natural gas consumption. Given the increasing urgency and national interest, it is likely that the Minister for K&E or the Prime Minister will make such an additional call. **DecisionThis measure is decided by the Minister** for K&E, prepared by the chair of the Departmental Policy Team (DBT) of the Ministry of Economic Affairs and Climate Policy in his role as CGE.
Expected contribution	**Magnitude of the impact** The measure has an effect on all domestic gas demand. The share of this can be considerable, especially due to the gas demand from small-scale consumers on a winter's day. However, the extent cannot be predicted in advance. **Certainty of the effect** The measure will be more effective if there is sufficient reaction time. After all, a change in behaviour has to take place. If such a call has not been issued before, the certainty of the effect is uncertain.
Other effects	Because it is a voluntary measure, large negative effects are not likely.
Alignment with Article 11, paragraph 6 of the EU Regulation	Given the non-binding nature of the measure, the internal market is not unduly restricted. This measure does not affect gas supply in another Member State or cross-border access to infrastructure.
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

2.5 Emergency

According to Article 11(1)(c) of the EU Regulation, an emergency situation exists if there is an exceptionally high demand for gas, a significant disruption of gas supply or any other significant deterioration of the gas supply situation, and all relevant market-based measures have been applied but the gas supply is not sufficient to meet the remaining gas demand and therefore additional non-market-based measures must also be taken, in particular to secure gas supplies to protected customers. By considering these measures, there is inherently a (threatening) gas crisis.

Even in the event of an emergency, natural gas companies must make information available to the competent authorities on a daily basis on the basis of Article 14, paragraph 1 of the EU Regulation. After the Minister for Climate and Energy has declared the crisis level emergency, various measures can be taken. These measures are referred to in the EU Regulation as 'non-market-based measures', and interfere with the usual market mechanisms.

Fout! Verwijzingsbron niet gevonden. shows the ladder of measures: the order in which measures are considered, ordered from the lightest to the heaviest measure in terms of the social impact of the measure itself and taking into account the practical feasibility of the measures and preconditions from the European regulation. The measures that can be used during the emergency crisis level are indicated by the letter C (C.1), in accordance with the regulation.

Ladder of measures		Type of measure	Focused on type of customer
C.1	Emergency call reduction energy consumption	Social	All customers
C.2	Request to neighboring countries to purchase less gas (government to government)	International	Non-Protected Customers
C.3	Request to European Commission to declare a regional emergency	International	Non-protected customers
C.4	Temporary gas consumption reduction subsidy scheme (tender)	Legal/economic	Non-protected customers
C.5	Mandatory curtailment of gas offtake by non-protected consumers (administrative)	Legal	Non-protected customers
C.6	Mandatory curtailment of gas offtake by consumers not protected by solidarity (administrative)	Legal	Customers not protected by solidarity
C.7	Invoking mutual solidarity between EU member states	International	Foreign customers not protected by solidarity
C.8	Mandatory curtailment of gas offtake by consumers protected by solidarity (administrative)	Legal	Solidarity-protected customers
C.9	Technically shutting down part of the main or regional gas network, including exports	Technical	Solidarity-protected customers

Table 1:Emergency Measures Ladder.

The Minister for K&E decides on the measures mentioned above when this is necessary and appropriate. An emergency can occur at any time of the year, and therefore non-market-based measures can also be used at any time if a crisis situation warrants it. If the powers offered by the state emergency law must be used to take the measure (i.e. if the measure is mandatory), it is the Minister of Economic Affairs and Climate Policy who actually takes the measures. This means that the Minister for K&E and the Minister for Economic Affairs and Climate Policy jointly decide to deploy a measure. To this end, the CGE prepares decisions by the Minister for K&E and the Minister for Economic Affairs and Climate Policy.

This ladder of measures dictates the order in which they will be considered, from the first measure to the last. However, not every measure will be possible in the face of all types of scarcity. This may be partly due to the urgency of the gas crisis.

Which crisis measures are used depends in part on aspects such as the nature of the gas shortage, the type (high-calorific or low-calorific gas), the size and the duration.

Measure C.1	Emergency call reduction energy consumption
Description of the measure	After or at the same time as the declaration of the emergency level, the Minister for K&E can make an emergency call to all customers (both households and businesses) to consume less natural gas and electricity. The Minister for K&E uses targeted means of communication, such as a public campaign, to inform society as a whole about the seriousness of the gas supply situation. The purpose of an emergency call is twofold: first, to reduce natural gas consumption, thereby improving the supply situation. Secondly, society is included in the possibility that more drastic measures will be necessary as soon as the situation deteriorates. Calls to reduce gas and electricity consumption may have already been made in earlier phases. That is why this measure has been formulated as an emergency call, an urgent request to save gas, otherwise more drastic measures may have to be taken.
Main actors involved	• Minister for K&E • National Crisis Centre (NCC) • National Core Team Crisis Communication (NKC) • National Grid Operator GTS • Regional Grid Operators • TenneT • Natural gas producers • National Operational Coordination Centre (LOCC) • Safety regions
Assessment of necessity	This measure can be considered at any time in an emergency situation and can be used more than once.
Implementation procedure	**Execution** The implementation of this measure is the responsibility of the Communications Directorate (DC) of the Ministry of Economic Affairs and Climate Policy in collaboration with the NKC. Part of this is coordinating the communication of all parties involved, including at least GTS, regional grid operators, TenneT, natural gas producers and security regions. The CGE prepares the opinion from whom the emergency call to reduce natural gas consumption should be issued. Given the urgency, it stands to reason that such an emergency call should be made at the highest level (by the Prime Minister). **DecisionThis measure is decided by the Minister** for K&E, prepared by the chair of the Departmental Policy Team (DBT) of the Ministry of Economic Affairs and Climate Policy in his role as CGE.

Measure C.1	Emergency call reduction energy consumption
Expected contribution	**Magnitude of the impact** The effect of the measure cannot be predicted in advance. This has to do with the behaviour of citizens, which depends on, for example, the perceived urgency and circumstances such as the temperature and the price of gas. The measure has an effect on all domestic gas demand. There is considerable savings potential, given the relatively large share of gas consumption by small-scale users on a winter's day (mostly protected customers). **Certainty of the effect** The effect of this measure on gas demand is uncertain, as such an emergency call has not been made before.
Other effects	Because it is a voluntary measure, large negative effects are not likely.
Alignment with Article 11, paragraph 6 of the EU Regulation	Given the non-binding nature of the measure, the internal market is not unduly restricted. This measure does not affect gas supply in another Member State or cross-border access to infrastructure.
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

Measure C.2	Request to neighboring countries to reduce their gas purchases
Description of the measure	If the previous measures have not yet achieved enough to compensate for the gas shortage, the Minister for K&E can ask other member states to limit the import of gas from the Netherlands on a voluntary basis. This is a government-to-government request. The measure can be a prelude to organising a combined request with several member states to the EC to declare a regional emergency (measure 3).
Main actors involved	• Minister for K&E • Member States of the European Union • European Commission • Adjacent Grid Operators (NNOs) • National Grid Operator GTS • NCC • NKC
Assessment of necessity	The request to neighbouring countries to purchase less gas is always considered as a 2nd rung of the ladder of measures, but can also be made at other times, as long as the European Commission has not yet declared a regional emergency. In the latter case, the EC will take on a more coordinating role in the gas crisis at the request of the member states. EU Regulation 1938/2017 stipulates that neighbouring countries are obliged to help each other in the event of a gas shortage, when a country has taken all available measures to continue to supply gas to solidarity-protected customers. However, this is not yet the case at this stage, because the Dutch customers who are not protected by solidarity have not yet been obliged to cease or reduce gas withdrawal. The purpose of this request to neighbouring countries is to restrict exports abroad. The request may lead to a call from the authorities of the neighbouring countries (in particular to non-protected customers) to voluntarily purchase less gas. Incidentally, the Netherlands, like all other Member States, may not take measures that unnecessarily restrict gas flows within the internal market and seriously jeopardise the security of gas supply in another Member State (Article 11(6)(a) and (b) of the EU Regulation). Cross-border access to infrastructure (e.g. gas storages) should also be maintained, insofar as this is technically and from a safety point of view (Article 11(6)(c) of the EU Regulation).

Measure C.2	Request to neighboring countries to reduce their gas purchases
Implementation procedure	**Execution** The implementation of this measure lies with the Ministry of Economic Affairs and Climate Policy, in particular the coordination with the DAT. The request to other member states to take measures to reduce Dutch exports will be made on behalf of the Minister for K&E and through the existing contacts with the relevant ministries in the neighbouring member states. The DCT is responsible for communication about this measure. **Decision** This measure is decided upon by the Minister for K&E, prepared by the chairman of the DBT of the Ministry of Economic Affairs and Climate Policy in his role as CGE.
Expected contribution	**Magnitude of the impact** The Netherlands is an important transit country. In 2022, the average winter export was around 112 mln. m3 per day. Exports to Germany and Belgium in particular can account for a large part of the gas demand. However, it is difficult to estimate the extent of the impact of the measure, as there is a good chance that neighbouring countries will experience the same gas crisis. Any gas savings will then benefit the customers in the neighbouring countries themselves. **Certainty of the effect** Without the EC formally declaring a regional emergency, the request for less gas consumption to neighbouring countries is a non-binding appeal for a voluntary contribution to gas reduction. This means that there is little certainty that the desired effect will occur.
Other effects	Reducing the purchase of natural gas by non-protected customers abroad will in many cases amount to shutting down business processes. This leads to economic damage. Because member states have freedom of choice in taking (voluntary) measures, the expected total economic damage as a result of the Netherlands' request is limited.
Alignment with Article 11, paragraph 6 of the EU Regulation	Given the nature of the measure (cooperation with other Member States) and the involvement of the European Commission in a regional emergency, the supply of gas in another Member State is not unduly restricted. This measure does not affect the internal market or cross-border access to infrastructure.

Measure C.2	Request to neighboring countries to reduce their gas purchases
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the CGE via the GTS crisis organisation. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

Measure C.3	Request to EC to declare a regional emergency
Description of the measure	If the previous measure has not yet achieved enough to deal with the gas shortage, the Minister for K&E may decide to request the European Commission to declare a regional emergency (Article 12 of the EU Regulation). At the request of the Member State(s), the EC will take on a more coordinating role in the gas crisis. This means that there is less voluntariness to take measures aimed at reducing consumption in neighbouring countries. The aim is to deal with the effects of the disruption jointly with other Member States, making them less severe. In the event of a significant deterioration in the supply of low-calorific gas, a regional emergency can also be declared in all countries participating in the low-calorific gas risk group.
Main actors involved	• European Commission • Minister for K&E • Member States of the European Union • Adjacent Grid Operators (NNOs) • National Grid Operator GTS • NCC • NKC
Assessment of necessity	Until the EC has declared a regional emergency, the willingness of neighbouring countries to help combat a gas crisis is voluntary, and therefore does not guarantee that neighbouring countries will purchase less gas. Here too, the Netherlands, like all other Member States, may not take measures that unnecessarily restrict gas flows within the internal market and seriously jeopardise the security of gas supply in another Member State (Article 11(6)(a) and (b) of the EU Regulation). Cross-border access to infrastructure (e.g. gas storages) should also be maintained, insofar as this is technically and from a safety point of view (Article 11(6)(c) of the EU Regulation).
Implementation procedure	**Execution** The implementation of this measure lies with the Ministry of Economic Affairs and Climate Policy, in particular the coordination with the DAT. The Minister for K&E requests the European Commission to declare a regional emergency. The DCT is responsible for communication about this measure. **Decision** This measure is decided upon by the Minister for K&E, prepared by the chairman of the DBT of the Ministry of Economic Affairs and Climate Policy in his role as CGE.

Measure C.3	Request to EC to declare a regional emergency
Expected contribution	**Magnitude of the impact** The Netherlands is an major transit country. In 2022, the average winter export was around 112 mln. m3 per day. Exports to Germany and Belgium in particular can account for a large part of the gas demand. The magnitude of the effect is difficult to estimate, because there is a good chance that neighbouring countries will experience the same gas crisis and, moreover, it is not clear in advance how and which reduction obligations will be imposed by the EC. **Certainty of the effect** With a formally declared regional emergency, Member States are more bound to take gas reduction measures and the certainty of the impact is greater.
Other effects	Reducing the purchase of natural gas by (especially unprotected) customers abroad may amount to shutting down business processes. This leads to economic damage. It is up to the EC and the governments of other member states to make a choice for the use of (voluntary, incentive or mandatory) measures.
Alignment with Article 11, paragraph 6 of the EU Regulation	Given the nature of the measure (cooperation with other Member States) and the involvement of the European Commission in a regional emergency, the supply of gas in another Member State is not unduly restricted. This measure does not affect the internal market or cross-border access to infrastructure.
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions taken, measures and advice, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the CGE via the GTS crisis organisation. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

Measure C.4	Temporary gas consumption reduction subsidy scheme (tender)
Description of the measure	The aim of the tender is to use a subsidy measure to encourage companies to voluntarily reduce the purchase of gas from the gas transport network. When the tender is opened, gas customers can submit a proposal in which they indicate the volume of gas they will save (purchase less) and which fee. A tender (auction system) is used for this. This means that the applications with the lowest price offer per m3 of natural gas will be subsidised. Depending on the development of supply and demand during the emergency, the savings tender can be used more than once.
Main actors involved	• Minister for K&E • National Grid Operator GTS • Netherlands Enterprise Agency • Gas customers
Assessment of necessity	This measure is taken when previous measures that have been implemented (market-based and non-market-based) have not had sufficient effect. It is expected that the savings tender will be particularly suitable for use when a gas crisis develops gradually, for example if there is a threat of a volume shortage at the end of the winter period when the gas storage facilities become empty. It is also conceivable that the savings tender will be used preventively when the crisis situation requires it. The measure is less suitable for combating an acute crisis situation that arises and requires a rapid reduction in demand.
Implementation procedure	**Execution** The savings tender can be prepared during the crisis level alert; The scheme will be opened and bids will be collected. After this, and after an emergency situation has been declared, the measure can be implemented in the short term. The savings tender is being carried out by the Netherlands Enterprise Agency (RVO). The DCT is responsible for communication about this measure. **Decision** The Minister for K&E will decide on the use of the savings tender. The decision is being prepared by the Departmental Policy Team (DBT) of the Ministry of Economic Affairs and Climate Policy.

Measure C.4	Temporary gas consumption reduction subsidy scheme (tender)
Expected contribution	**Magnitude of the impact** The magnitude of the effect of the measure depends on the amount of the total subsidy and the average price per m3 of gas saved. In addition, the use of the tender is flexible, the volume saved and the price per m3 can vary in order to adjust the size of the tender to the context of the crisis. A calculation example based on a scenario that is considered realistic: If the subsidy scheme for a temporary reduction in gas consumption is based on a target value of, for example, 3 million m3 of natural gas savings per day, then with an average bid of 2 euros per m3 (based on the auction system) for 28 days, this will lead to the total cost of the scheme: € 168 million. The total subsidy budget and the maximum compensation per m3 depend on the nature of the gas crisis and will be determined in more detail when the gas is finally opened. **Certainty of the effect** It is unknown how many companies will apply. There is no experience with similar measures. However, it can be said that the measure will lead to a fairly certain decrease in gas demand in accordance with the subsidies granted.
Other effects	Reducing the purchase of natural gas by non-protected customers will, in many cases, amount to shutting down industrial processes. Because companies have freedom of choice, given the tender, the expected total economic damage from this measure is limited.
Alignment with Article 11, paragraph 6 of the EU Regulation	Given the non-binding nature of the measure, the internal market is not unduly restricted. This measure is likely to have limited or no impact on gas supply in another Member State or cross-border access to infrastructure.

Measure C.4	Temporary gas consumption reduction subsidy scheme (tender)
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. RNBs, NNOs, programme managers and producers provide GTS with this data. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

Measure C.5	Mandatory curtailment of gas offtake by non-protected consumers (administrative)
Description of the measure	If the previous measures have not yet achieved enough to compensate for the gas shortage, non-protected customers are faced with a mandatory curtailment of gas offtake. The measure is imposed by giving a legal instruction (a prohibition or injunction) to a group of consumers. Consumers are responsible for purchasing less gas. The mandatory curtailment of gas offtake by non-protected consumers is a very drastic measure with far-reaching consequences for both consumers affected and for the economy and society as a whole. For this reason, the measure will be implemented in phases. In principle, three steps are distinguished to achieve the intended reduction target: 1. The mandatory scale down of gas consumption by all non-protected customers by 20%. 2. Mandatory curtailment of gas consumption per economic sector based on a predetermined order: sectors with less/more economic and social disruption are divided into three groups. 3. Mandatory curtailment of gas consumption by *all* non-protected customers. If the specific circumstances of an emergency situation give cause to do so, it may be necessary to deviate from the steps described above. This may mean, for example, that a step must be skipped in view of the severity and scale of the emergency, but in exceptional cases it may also mean that this measure has to be implemented in a different way than currently envisaged.
Main actors involved	• Minister for K&E together with Minister of Economic Affairs and Climate Policy (use of state emergency law) • National grid operator GTS • RVO • Regional Grid Operators • Non-protected customers • NCC • NKC • ACM • Chamber of Commerce
Assessment of necessity	The measure is only aimed at non-protected customers. In this measure, crucial gas-fired power plants and critical infrastructure are spared as much as possible according to the ranking of the vitality assessment, taking into account categories A and B.[16]

[16] https://www.nctv.nl/onderwerpen/vitale-infrastructuur/overzicht-vitale-processen

Measure C.5	Mandatory curtailment of gas offtake by non-protected consumers (administrative)
Implementation procedure	**Execution** Within the mandatory curtailment strategy, the least drastic measures will be chosen if they can achieve the goal. This means that not all steps of this strategy are automatically deployed. **Decision** The Minister for K&E (competent authority on the basis of the EU regulation) together with the Minister for Economic Affairs and Climate Policy (competent minister under the Distribution Act) will decide to deploy this measure (or steps within this measure), prepared by the DBT of the Ministry of Economic Affairs and Climate Policy. **Supervision** In the draft regulation for mandatory curtailment of gas offtake, the Netherlands Authority for Consumers and Markets (ACM) has been designated as the regulator under the Distribution Act. **Enforcement** The Minister for K&E mandates ACM to enforce administrative law. Compliance with this regulation is enforced by means of administrative remedial sanctions and criminal sanctions.
Expected contribution	**Magnitude of impact** Full implementation of the mandatory curtailment of gas offtake strategy is expected to result in gas savings of up to 2 million m3 per hour. **Certainty of effect** The certainty of effect of the measure is high because of the mandatory nature of the measure. However, there is a risk of non-compliance. After all, non-protected gas consumers are responsible for purchasing no or less gas.

Measure C.5	Mandatory curtailment of gas offtake by non-protected consumers (administrative)
Other effects	Mandatory curtailment of gas offtake by non-protected customers will, in many cases, lead to shutting down industrial processes. This leads to economic damage. Given its coercive nature, the economic damage can be considerable, due to the occurrence of chain effects. These chain effects can be intra-sectoral, intersectoral and cross-border. Full implementation of all the steps of this measure will lead to the loss of a significant part of GDP for a number of days. This means that the social costs of curtailment can increase considerably per day because a large part of the society and economy of the Netherlands comes to a standstill. Obviously, the impact is smaller when only step 1 and/or 2 are executed.
Alignment with Article 11, paragraph 6 of the EU Regulation	The internal market is not unnecessarily restricted, as market-based and non-binding measures have already been considered before this very impactful measure is taken. This measure does not affect gas supply in another Member State or cross-border access to infrastructure.
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

Measure C.6	Mandatory curtailment of gas offtake by consumers not protected by solidarity (administratively)
Description of the measure	If the previous measures have not yet achieved enough to compensate for the gas shortage, consumers not protected by solidarity are faced with curtailment of their gas offtake.

Measure C.6	Mandatory curtailment of gas offtake by consumers not protected by solidarity (administratively)
Main actors involved	• Minister for K&E together with Minister for Economic Affairs and Climate Policy • National Grid Operator GTS • Customers not protected by solidarity • Electricity producers / TenneT • RNBs • NCC • NKC
Assessment of necessity	This measure will only be considered if all previous measures (market-based and non-market-based) have not had a sufficient impact on the gas shortage. This makes the emergency situation such that this measure should be considered. The measure is aimed at gas consumers not protected by solidarity. Critical gas-fired power plants are not solidarity-protected customers. However, it is important in this measure that crucial gas-fired power plants and critical infrastructure are spared as much as possible according to the ranking of the vitality assessment taking into account categories A and B, for example to avoid serious damage to the operation of the electricity or gas system.
Implementation procedure	**Execution** Gas consumers not protected by solidarity are obligated to stop or reduce gas their gas offtake through means of a legal indication (a prohibition or injunction) to a group of users. These users are responsible for not purchasing any more gas. **Decision** This measure is decided by the Minister for K&E (competent authority under EU regulation) and is prepared by the DBT of the Ministry of Economic Affairs and Climate Policy. **Supervision** At a later date, it will be considered how the supervisory role will be fulfilled.

Measure C.6	Mandatory curtailment of gas offtake by consumers not protected by solidarity (administratively)
Expected contribution	**Magnitude of the impact** The gas demand from customers not protected by solidarity (excluding those restricted by the previous measure) in the Netherlands is limited, because the category of companies that are protected but not protected by solidarity is small. **Certainty of the effect** The certainty of the expected effect on this demand is high, in view of the mandatory nature of the measure.
Other effects	Mandatory curtailment of gas offtake by consumers not protected by solidarity will lead to economic damage. In view of its coercive nature, the economic damage can be considerable (see also previous measure).
Alignment with Article 11, paragraph 6 of the EU Regulation	The internal market is not unnecessarily restricted, because market-based and non-binding measures have already been considered before this measure is taken. This measure does not affect gas supply in another Member State or cross-border access to infrastructure.
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

Measure C.7	Invoking mutual solidarity between EU member states
Description of the measure	If the above measures prove to be insufficient, the Ministry of Economic Affairs and Climate Policy contacts the European Commission and the competent authorities in the EU countries to which the Dutch gas transport network is directly connected (Belgium and Germany; in the event of an emergency situation in the field of low-calorific gas, France will also be contacted) with the request not to purchase gas from the Netherlands for their own non-protected customers.
Main actors involved	• Minister for K&E • National Grid Operator GTS • Adjacent Grid Operators (NNOs) • European Commission • Member States of the European Union • NKC
Assessment of necessity	If the previous measures have been implemented and insufficient progress has been made to compensate for the gas shortage, every effort has been made in the Netherlands limit gas offtake by non-protected consumers and consumers not protected by solidarity. If the crisis is so severe that the gas demand of solidarity-protected customers is still not covered by the supply, the mutual solidarity of countries within the EU can be invoked for the gas supply of solidarity-protected customers by asking them to stop buying gas from the Netherlands.
Implementation procedure	**Execution** In order to achieve mutual solidarity, the Ministry of Economic Affairs and Climate Policy, in the person of the CGE, contacts the European Commission and the relevant competent authorities in EU countries. EU countries will then communicate their options for solidarity and the further actions needed. **Decision** This measure is decided upon by the Minister for K&E, prepared by the chairman of the DBT of the Ministry of Economic Affairs and Climate Policy in his role as CGE.
Expected contribution	**Magnitude of the impact** The contribution and scope of this measure can be significant. Exports can account for a large part of gas demand. **Certainty of the effect** It is difficult to estimate the certainty of the expected effect on this demand.

Measure C.7	Invoking mutual solidarity between EU member states
Other effects	Reducing the purchase of natural gas by non-protected customers abroad will in many cases amount to shutting down business processes. This leads to economic damage. Given its coercive nature, this economic damage can be significant (see also previous measures).
Alignment with Article 11, paragraph 6 of the EU Regulation	This measure does not unduly affect the internal market or cross-border access to infrastructure. The supply of gas in another Member State is not unnecessarily restricted, because all measures have already been taken in the Netherlands against customers who are not protected by solidarity.
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

Measure C.8	Mandatory curtailment of gas offtake by consumers protected by solidarity (administrative)
Description of the measure	Once the above measures have been taken, the Netherlands will have done everything in its power to maintain the supply of gas to solidarity-protected customers. If the crisis is so severe that the gas demand of these solidarity-protected customers is not covered by supply, measures will be needed aimed at solidarity-protected customers. In this phase, consumers protected by solidarity will be instructed not to purchase gas or to use less gas.
Main actors involved	• Minister for K&E together with Minister of Economic Affairs and Climate Policy • National Grid Operator GTS • RNBs • Protected customers • NCC • NKC

Measure C.8	Mandatory curtailment of gas offtake by consumers protected by solidarity (administrative)
Assessment of necessity	Solidarity-protected customers are household customers. The Regulation allows Member States to also designate, under certain conditions, specific essential social services and district heating installations as solidarity-protected customers to the extent that they supply to households. This measure is only considered when all previous measures (market-based and non-market-based measures) have not had a sufficient impact on gas supply. This makes the emergency situation such that this measure should be considered. If such a designation is given, there is a great shortage of gas. This will have major disruptive consequences in society. It makes sense to spare vulnerable populations, such as health care, for as long as possible. In addition, this is a last resort to prevent the shutdown of part of the main gas network, which shortens the recovery period after the emergency, and thus limits the consequences.
Implementation procedure	**Execution** The Minister for K&E gives the instructions to customers protected by solidarity on the basis of categories of protected customers. **Decision** This measure is decided by the Minister for K&E (competent authority on the basis of the EU regulation) together with the Minister of Economic Affairs and Climate Policy (competent minister on the basis of the Distribution Act), prepared by the chairman of the DBT of the Ministry of Economic Affairs and Climate Policy in his role as CGE.
Expected contribution	**Magnitude of the impact** The expected impact on demand is uncertain. The demand for gas can be relatively high, especially when small-scale consumers ask for gas for heating on a cold winter's day. **Certainty of the effect** The consequences of mandatory curtailment of gas offtake by solidarity-protected consumers can be major and potentially life-threatening. It is therefore uncertain how small-scale consumers will react to an instruction not to purchase gas.
Other effects	Such a shortage of gas will have major disruptive consequences in society. Due to the shortage of gas, companies will have to switch off, leading to economic damage, and small-scale consumers will be left without natural gas, leading to risks to public health.

Measure C.8	Mandatory curtailment of gas offtake by consumers protected by solidarity (administrative)
Alignment with Article 11, paragraph 6 of the EU Regulation	The internal market is not unnecessarily restricted, because market-based and market-based measures against non-protected customers (non-committal and forced) have already been considered before this measure is taken. This measure does not affect gas supply in another Member State or cross-border access to infrastructure.
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

Measure C.9	Technically shutting down part of the main or regional gas network including exports
Description of the measure and actors	In the event of a serious disruption in the gas supply, it will be necessary to stop the supply of gas to certain parts of the main or regional grid and abroad as a follow-up to the aforementioned measures, even if this affects all customers, protected and unprotected. This measure will then be necessary to keep the recovery time after the disruption as short as possible. To shut off part of the main gas network, it is possible to close valves in through pipes, or to do this at the level of Measuring and Control Stations or Gas Receiving Stations. The choice of which part of the gas network to shut down depends on the possible effects on national security. Part of the main gas network with a relatively large supply of gas to the vital infrastructure will therefore be shut down later than other parts. As a result of this choice, the effects of closure will be distributed proportionally across the Netherlands as much as possible. When choosing parts of the main gas network to be shut down, a discontinuation of exports is also a possibility. The regional grid operators have the option of switching off part of the low-pressure network in consultation with GTS, with the aim of keeping the impact of the of this measure as small as possible. The form of implementation of this measure also depends on the urgency of the measure and the speed with which it can be implemented.
Main actors involved	• Minister for K&E and Minister for Economic Affairs and Climate Policy • National Grid Operator GTS • Regional Grid Operators • NNOs • NCC • NKC • LOCC
Assessment of necessity	This measure is only considered when all previous measures (market-based and non-market-based) have not had a sufficient impact on gas supply. This makes the emergency situation such that this measure should be taken. Such an impactful measure is necessary in the event of a major gas shortage in order to maintain the pressure in the remaining part of the national gas transport network – a prerequisite for a timely restart of gas extraction and gas supply.

Measure C.9	Technically shutting down part of the main or regional gas network including exports
Implementation procedure	**Execution** The implementation of the measures is the responsibility of GTS and/or the RNB, coordinated by the SCT of GTS. Measures to be implemented to regulate the gas supply are carried out by the CCP and the Operations Department of GTS and/or the RNB. In the event of an emergency, the measures are carried out by GTS and the RNB on behalf of the Ministry of Economic Affairs and Climate Policy. This concerns both the technical disconnection from the CCP and the manual technical disconnection of certain customers, transfer points to the networks of Regional Network Operators, NNOs, pipeline sections or parts of the GTS gas transport network. The technical shutdown of part of the main gas network in the Netherlands is done (if possible) on the basis of prepared lists. In consultation with GTS, the regional grid operators may decide to close down (parts of) smaller regional grids in order to minimise the impact. **Decision** This measure is decided by the competent authority for the Ministry of Economic Affairs and Climate Policy (the Minister of Economic Affairs and Climate Policy) and the Minister of Economic Affairs and Climate Policy (the competent minister under the Distribution Act), prepared by the chairman of the DBT of the Ministry of Economic Affairs and Climate Policy in his role as CGE.
Expected contribution	**Magnitude of the impact** The magnitude of the gas reduction depends on the area being shut off. **Certainty of the effect** The effect is then guaranteed by technical shutdown.
Other effects	Such a shortage of gas will have major disruptive consequences in society. Due to the shortage of gas, companies will have to switch off, leading to economic damage, and small-scale consumers will be left without natural gas, leading to risks to public health and safety. Another possible consequence is the displacement of gas demand through evacuation. These effects have not been quantified at this time.
Alignment with Article 11, paragraph 6 of the EU Regulation	The internal market, the supply of gas to another Member State and cross-border access to infrastructure are not unduly restricted, as all other measures have already been considered before this measure is taken;

Measure C.9	Technically shutting down part of the main or regional gas network including exports
Information flows	This measure is taken on the basis of information about the date and time of the start of the undesirable event, the description, cause, context and effects of the undesirable event, the teams and parties involved, the decisions, measures and advice taken, and the forecasts. This data can be requested by GTS from RNOs, NNOs, programme responsible parties and producers. This information will be passed on to the DCC-EZK and, through it, to the DG K&E. In its role as information coordinator, the DCC collects the information from GTS and the various departments of the Ministry of Economic Affairs and Climate Policy and processes it into a departmental overall picture of the situation. On the one hand, this overall picture supports departmental decision-making and, on the other hand, serves as input for interdepartmental decision-making in the ILO, the ICCb and the MCCb.

3 Specific measures for electricity and district heating

3.1 District heating

The measures and actions to limit the possible consequences of a gas supply disruption for district heating are the same as the measures and actions taken for the (solidarity) protected customers.

Some Dutch households are heated by means of district heating. In cities in particular, this concerns large numbers of households. The likely impact of a gas supply disruption in the district heating sector depends on the nature and severity of the supply disruption. In the event of an emergency, measures will be taken to prevent the district heating sector from being affected, but this cannot be ruled out. In extreme cases, this may mean that households that have district heating can no longer be heated.

Households are considered by the regulation as solidarity-protected customers. The Regulation allows Member States to designate, under certain conditions, essential social services and district heating installations as solidarity-protected customers.[17] The sequence of measures in the event of an emergency is such that customers and essential social services and district heating installations are protected (by solidarity) for as long as possible.

3.2 Production of electricity from gas

The natural gas and electricity supply are closely intertwined. Without electricity, the natural gas supply no longer functions, because the equipment used to control the natural gas supply is electrically powered. Without natural gas, gas-fired power plants cannot function because there is no fuel with which the gas-fired power plants can power the generators. The two energy supplies are therefore intertwined. In 2022, 6.6 bcm of gas was purchased for the production of electricity in Dutch gas-fired power plants.[18] The impact on the electricity sector depends on the nature and severity of a disruption. In the event of an early warning or alert, there will be no (mandatory) consequences for the electricity sector.

The EU regulation indicates that priority may be given to critical gas-fired power plants to prevent serious damage to the electricity system. The sequence of measures in the event of an emergency is such that a blackout of the electricity system is avoided for as long as possible. This is in line with the spirit of the EU Regulation; Electricity is necessary to supply heat to small-scale consumers (via district heating), to extract and transport gas and to operate the heating systems of small-scale consumers. In the event of an emergency, two measures affect the electricity sector (see also Chapter 2):

- Measure C.5: Mandatory curtailment of gas offtake by non-protected consumers (administrative). Gas-fired electricity production installations with an installed capacity of

[17] These definitions are formulated in a bill on security of gas supply.

[18] https://www.cbs.nl/nl-nl/nieuws/2023/07/gasverbruik-nederland-in-2022-laagste-in-50-jaar.

more than 100 MW are exempted from mandatory gas reduction within this measure. These are the crucial gas-fired power plants identified in the Preventive Action Plan that are needed for balancing the electricity network. At the same time, this means that production installations with an installed capacity of up to 100MW will in principle have to switch off if this measure is taken, in order to maximise the gas reduction. However, it cannot be ruled out that production sites with less than 100 MW of installed capacity will also be required. During the emergency situation, the Minister may, on the advice of TenneT, adjust the identification of crucial gas-fired power plants, on the basis of which the Minister for K&E can also adjust the draft regulation.

- Measure C.6: Mandatory curtailment of gas offtake by consumers not protected by solidarity. In extreme cases, the result will be that the gas-fired power plants identified as critical will also have to be switched off. These power plants will then no longer be able to meet the demand for electricity. A possible consequence is a total or partial blackout of the electricity system. TenneT will try to prevent a blackout at all times, even if the supply of electricity from gas-fired power plants decreases or disappears.

When a significant deterioration in gas supply is likely to affect the electricity sector, TenneT will scale up internally and participate in the crisis structure described in Chapter 1. A TenneT liaison will join the DBT of the Ministry of Economic Affairs and Climate Policy. The Minister of Economic Affairs and Climate Policy is responsible for both the gas and electricity supply. On behalf of the Minister of Economic Affairs and Climate Policy, the CGE will decide on measures to prevent spill-over effects of a gas crisis affecting the electricity sector where possible.

4 Gas and Electricity Crisis Manager

The EU regulation requires each Member State to appoint a crisis manager who, in the event of a gas crisis requiring upscaling, coordinates the approach within and on behalf of the Member State and, where appropriate, participates in the European Union's crisis management group[19].

Because of the close interconnectedness between gas and electricity, the Netherlands has chosen to combine this role with the coordination role for electricity[20]. The role of Gas and Electricity Crisis Manager (CGE) is fulfilled by the Director-General of Climate and Energy (DG K&E) of the Ministry of Economic Affairs and Climate Policy. As chairman of the DBT of the Ministry of Economic Affairs and Climate Policy, he prepares the (strategic) decisions on how to tackle the gas crisis. In any case, the usual members and the liaison(s) of GTS are represented in the DBT. On the initiative of the Chairman, liaisons of the other gas and electricity network operators involved may also be invited[21].

The scope of CGE's formal role means that in practice it cannot be fulfilled by one person, but a Gas (and Electricity) Crisis Organisation must be activated. This crisis organisation is facilitated and coordinated by the Departmental Crisis Centre of the Ministry of Economic Affairs and Climate Policy (DCC-EZK). In the event of a significant deterioration of gas supply for which non-market-based measures should also be used, an emergency situation, this crisis organisation should in any case carry out the following tasks:

Coordination of the overall cohesion within the Ministry of Economic Affairs and Climate Policy in the crisis structure (departmental, interdepartmental, GTS crisis structure, with partners in the gas sector, with partners in the electricity supply and with the security regions).

- Coordinating the provision of information within the EZK crisis structure.
- At the request of the EC, participate in the crisis management group of the European Union.
- Chairing the DBT.
- Representation of DBT Chairman at the Interdepartmental Commission for Crisis Management (ICCb).
- Informing the ministers of the Ministry of Economic Affairs and Climate Policy.
- Supporting the Minister for K&E in the Ministerial Committee on Crisis Management (MCCb).

The CGE manages the crisis organisation. Within the crisis organisation, coordination of cohesion has been delegated to a crisis coordinator, coordination of the provision of information to an information coordinator, preparation of participation in the EU crisis management group to a policy officer for international affairs, and the preparation of the provision of information to and support

[19] See Articles 10(1) and 11(4) of the EU Regulation.

[20] The Netherlands must appoint a 'crisis coordinator' for the electricity supply as a contact person for the EU and to coordinate the provision of information during an electricity crisis. This is based on the EU Regulation 2019/941 on risk preparedness in the electricity sector.

[21] In accordance with the Departmental Manual on Crisis Decision-making.

for the Minister of Economic Affairs and Climate Policy takes place in coordination between a crisis coordinator and political advisor.

5 Roles and responsibilities of the various actors

5.1 Introduction

In the following sections, we describe the roles, tasks and powers of the most important parties involved in a gas crisis, namely the European Commission, Member States of the European Union, the national grid operator GTS, the regional grid operators and other crisis partners within and outside the gas chain.

This is followed in section 5.3 by a description of the crisis structure, including a description of the mutual interactions per crisis level between the actors involved in a gas crisis.

5.2 Parties involved

5.2.1 European Commission

Outside times of crisis, the European Union's primary role is as legislator. As described in the previous chapter, there is European legislation on gas supply and security of supply.

This legislation regulates, inter alia, that Member States must ensure that, in the event of a significant deterioration in the gas supply situation, no measures are taken which unduly restrict the flow of gas within the internal market at any time or which may seriously jeopardise the gas supply situation in another Member State, and that cross-border access to infrastructure is maintained, as far as this is technically and from the point of view of safety. The Commission examines whether the declaration of an emergency is justified and whether the measures taken are in line with the emergency plan, do not impose disproportionate burdens on natural gas undertakings and do not distort the internal European market.

Subsequently, the Commission may request that the measures be amended if they are contrary to the abovementioned conditions. The Commission may also request that the end of the emergency be declared if it concludes that such a declaration is not or is no longer justified.

The Commission does not have access to gas reserves on the territory of individual Member States. However, due to the increasing dependence on gas imports, the Commission has developed a European approach to gas crises together with the Member States. In this approach, agreements have been made on the maintenance of the flow of gas within the internal market and the non-adoption of measures that would seriously jeopardise the gas supply situation in another Member State. Member States are obliged under the solidarity mechanism to comply with a request from a Member State for emergency supply of gas for solidarity-protected customers, when Member States' gas networks are interconnected directly or through a third country. However, this must be compensated by the payment of compensation.

5.2.2 Member States of the European Union

The Netherlands and other EU member states benefit from an uninterrupted gas supply within the EU. This is why the EU regulation aims to increase solidarity and trust between Member States, to maintain the functioning of the internal gas market for as long as possible, and to take measures to ensure security of gas supply. Each Member State is required to designate a competent authority on the basis of the Regulation.

For the Netherlands, agreements with neighbouring countries and with countries from the same risk groups are particularly important. Article 3(7) and Annex I of the EU Regulation list various risk groups of Member States. These risk groups serve as a basis for cooperation on risks. For the Netherlands, this concerns the following risk groups:

- Risk groups for gas supply from the east:
    - Belarus: Belgium, Czech Republic, Estonia, Germany, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Slovakia;
    - Baltic Sea: Austria, Belgium, Czech Republic, Denmark, France, Germany, Luxembourg, the Netherlands, Slovakia and Sweden.
- Risk groups for gas supply around the North Sea
    - Norway: Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom;
    - Denmark: Denmark, Germany, Luxembourg, the Netherlands and Sweden;
    - The United Kingdom: Belgium, Germany, Ireland, Luxembourg and the Netherlands.
    - Low-calorific gas: Belgium, Germany, France and the Netherlands.

This means that in the event of problems with gas supply from the east, the Netherlands will have to deal with the member states mentioned under (1), namely the groups 'Belarus' and 'Baltic Sea'. In the event of problems with gas supply around the North Sea, the Netherlands has to deal with the Member States mentioned under (2), namely the groups 'Norway', 'Denmark', 'The United Kingdom' and 'Low-calorific gas'. Agreements between the Netherlands and other Member States in the various risk groups are part of the emergency plan and are included in Chapter 10.

As a follow-up to the EU Regulation, the European Commission has drawn up a recommendation on how Member States can implement the solidarity mechanism (EC Recommendation 2018/177). The solidarity mechanism ensures an uninterrupted supply of gas to households and essential social services and means that, in the event of a request for solidarity by a Member State, the other Member States connected directly or through a third country are obliged under the solidarity mechanism to prioritise the supply to solidarity-protected customers in the requesting Member State over domestic customers who are not protected by solidarity. This is only necessary if the market is unable to supply the required gas volumes.

The assistance that a Member State can provide is subject to various restrictions, such as being able to supply its own domestic customers, protected by solidarity, if the supply of gas to them is threatened.

A Member State can only have recourse to this solidarity mechanism as a last resort, if the market is unable to offer the necessary volumes of gas to the solidarity-protected customers and if all

available measures in the requesting Member State's contingency plan have been exhausted. The Member State requesting solidarity shall immediately pay, or ensure the prompt payment of, fair compensation to the Member State providing solidarity.

5.2.3 National grid operator GTS

The system operator of the national gas transport network, GTS, is an independent subsidiary of Gasunie. GTS is responsible for the management, operation and development of the national gas transport network in the Netherlands.

In the event of gas failures and incidents in the gas supply, GTS will take its own remedial measures if necessary and, if possible. If there are indications that a significant deterioration in the gas supply could occur, or if such a significant deterioration occurs, GTS is obliged to contact the Ministry of Economic Affairs and Climate Policy (see Chapter 1 on crisis processes). If there is a significant deterioration in the gas supply and market-based measures are not sufficient to compensate for the gas shortage, GTS will keep in close contact with the Gas and Electricity Crisis Manager.

The national grid operator GTS cooperates internationally within ENTSOG, the partnership of all European transmission system operators for gas TSOs. The European TSOs have made informal communication agreements with each other to ensure the reliability of the gas supply in their joint area. This platform offers the possibility for GTS to switch quickly if capacity is lost.

5.2.4 Regional Grid Operators

The RNOs are responsible for distributing gas in an area, for maintaining their grid infrastructure and for the load-shedding and recovery plans, including communication about this. Together with Netbeheer Nederland, it will be examined how these contingency plans can be fitted within the structure and measures that are created with this BH-G.

A network operator is independent and not linked to a gas supplier. If necessary, an RNO shall take its own remedial measures in the event of an interruption of supply. In addition to the regular tasks and responsibilities, all network operators must work together to ensure the gas supply in extraordinary circumstances.

In Figure 7 network operators are included with an indication of their gas catchment area(s).

Figure 7. Regional grid operators and their catchment area.[22]

5.2.5 Other crisis partners in the gas chain

Within the gas chain, a number of parties can be named that can play a role during a gas crisis as the cause, victim or crisis partner. These parties are briefly mentioned below, with the primary task/responsibility.

- ***Programme managers***, whose primary task is to keep the gas market in balance. The resulting total network balance is the result of the actions of all those responsible for the programme together. In the event of a disruption of the gas balance outside the operational link communicated with the programme responsible, the national grid operator GTS will take measures to restore the gas balance.

[22] Image courtesy of Netbeheernederland.nl.

- ***Producers of natural gas***, whose primary task is to extract gas and then feed it into the main transmission network.
- ***Producers of nitrogen***, insofar as they supply nitrogen for the mixing stations in Pernis and Wieringermeer.
- ***Directly connected to the national grid operator GTS***, these are large-scale consumers who do not purchase via an RNB. This concerns large industrial customers and gas-fired power plants.
- ***Directly connected to the regional grid operators***, these are large-scale consumers who purchase via an RNB. This concerns large industrial customers and gas-fired power plants.
- ***Storage System Operators (SSOs) and parties that own the gas in the storage facilities***, where gas is stored underground. This gas can be used, on a commercial basis, to compensate for imbalances during the day or season.
- ***Neighbouring Network Operators (NNOs),*** which are important for international gas supply and gas consumption, and for agreements in the event of severe shortages.
- ***Electricity grid operators***, which are important because the production and transmission of natural gas are largely dependent on the availability of electricity. In addition, the production of gas is in turn important for electricity production (approximately 50% of Dutch electricity is generated in gas-fired power stations). So there is mutual dependency here.
- ***The Netherlands Authority for Consumers and Markets (ACM***) is the regulator and can, for example, impose a binding policy on network operators in order to comply with the law, directives or regulations pursuant to Article 1b of the Gas Act. Pursuant to Article 12b of the Gas Act, ACM may also adopt network codes for, among other things, exceptional circumstances and the way in which security of supply is guaranteed.
- ***The State Supervision of Mines*** is the independent regulator of mineral and energy extraction, including gas, in the Netherlands. In addition, SodM, on behalf of the Minister of Economic Affairs and Climate Policy, supervises safety and environmental protection in the gas network, among other things. If necessary, SodM can enforce compliance with the applicable laws and regulations. In addition, SodM has the task of advising the Minister of Economic Affairs and Climate Policy on gas extraction. The tasks of the SodM are laid down in the Mining Act and the Gas Act.
- ***Operators of LNG terminals and parties that own the gas in the terminals.***

5.2.6 Crisis partners outside the gas chain

During a gas crisis, there will also be cooperation with parties outside the gas chain:

- ***Ministry of Justice and Security/NCC/LOCC.*** The Minister of Justice and Security is the coordinating minister in the field of crisis management. He is politically responsible for the structure, operation and coherence of the crisis management policy and system. He is also, in close cooperation with the other ministers, in charge of strengthening national security. The Ministry of Justice and Security includes the NCC and the National Operational Coordination Centre (LOCC).
  - The NCC supports the decision-making of the interdepartmental crisis structure, for example by acting as an information hub.
  - During incidents and crises, the LOCC's task is to promote an efficient and coherent deployment of people, resources and expertise of the operational services of the fire brigade, police, GHOR, defence and municipalities.

In the event of large-scale calamities that affect or affect gas transport, the national grid operator GTS can send a liaison to both the NCC and the LOCC.

- ***Other ministries.*** A shortage of gas quickly has a disruptive effect on the (policy) domains of other ministries. In the event of a gas crisis/emergency, ministries other than the Ministry of Economic Affairs and Climate Policy and the Ministry of Justice and Security may therefore also scale up in order to limit the consequences for their own policy area as much as possible. Cooperation of the relevant ministries is coordinated within the structure of national crisis decision-making.
- ***Mayors/chairmen of the security region.*** The 25 security regions in the Netherlands have laid down their cooperation with the national grid operator GTS and the regional grid operators in covenants that are managed by the trade association Netbeheer Nederland. The security regions are focusing on the consequences of a gas crisis in public life. This concerns the performance of tasks in the field of fire services, disaster and crisis management, medical assistance and public order and safety. In accordance with the covenants, liaisons of the regional grid operator(s) and, if applicable, of the national grid operator participate in the (regional) policy team upon request. This may be organised differently for each security region (for example, it may also be the case that a liaison of the security region participates in the crisis team of the (regional) grid operator).
  The mayor or chairman of the security region is responsible for addressing the effects of a gas shortage on public order and public safety in his/her municipality or security region. The mayor or chairman of the security region has no influence on the functioning of the gas sector itself (the continuity of supply): government intervention in the gas sector is centralised and lies with the Minister of Economic Affairs and Climate Policy/European Commission. The mayor or chairman of the security region or, at the national level, the Minister of Justice and Security does have the authority to (temporarily) prevent preventive shutdown by a grid operator if it imminently endangers public order or safety, for example in the event of an evacuation.

5.3 Crisis structures

In the event of a gas crisis, the various parties involved all have their own emergency or crisis organisation. Figure 12 provides insight into the crisis structure and the interactions that take place in the event of a gas crisis. The blocks, outlined by a solid line, are permanent structures. The dotted blocks indicate teams that can only be scaled during a crisis. The various components of the crisis structure are briefly explained below the figure.

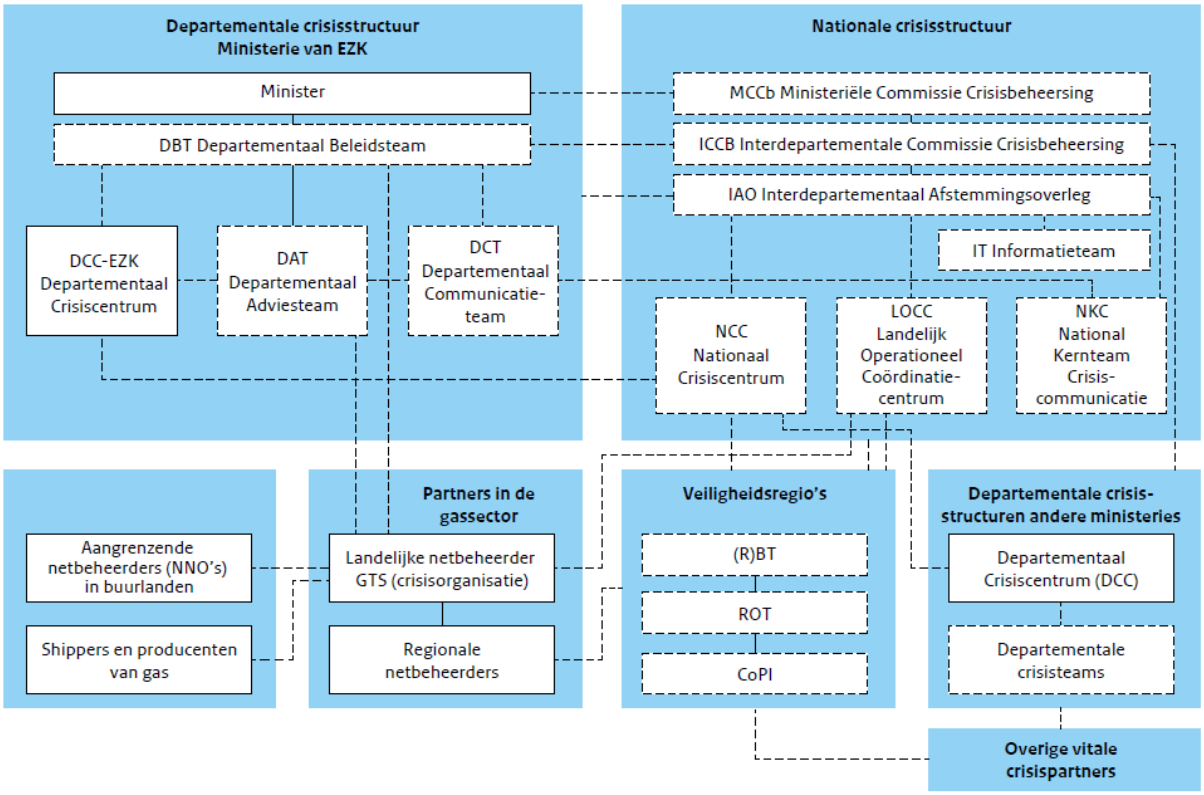

Figure 8. Communication structure in the event of a gas crisis.

The figure above shows that the Departmental Crisis Structure and the Crisis Structure of GTS are in line with each other: the SCT informs the Departmental Crisis Structure via the DCC-EZK and advises the DAT and the DBT. The Departmental Crisis Structure and the Interdepartmental Crisis Structure are also in line with each other (see Crisis Handbook EZK). GTS advises the LOCC and liaises with the relevant network operators for gas and electricity. GTS and the regional grid operators advise the Safety Regions via the ROT. The CGE coordinates the outlined coherence (see Chapter 4).

5.3.1 Crisis Organisation of the Ministry of Economic Affairs and Climate Policy

In the event of an emergency, the crisis organisation of the Ministry of Economic Affairs and Climate Policy consists of the usual teams. Below is a brief explanation for each team. For a more detailed explanation, please refer to *the Departmental Manual on Crisis Decision-Making of the Ministry of* Economic Affairs and Climate Policy and the Ministry of Agriculture, Nature and Food Quality:

- ***Departmental Policy Team.*** The DBT advises on strategic decisions and measures on the approach to the gas crisis, determines the communication strategy, informs and advises the minister and is responsible for the provision of information to the European Union. In this plan, the substantive measures that the DBT can decide on are elaborated in a ladder of measures. The DBT advises the CGE on the decisions to be taken and is chaired by the DG concerned, in

this case DGKE/CGE. The CGE takes the final decisions and informs the ministers about these decisions. The DBT consists of directors of the relevant policy directorates and the relevant executive departments.

- ***Departmental Advisory Team.*** The DAT draws up a joint strategic information picture of the situation, prepares the crisis decision-making of the DBT and then coordinates its implementation. In addition, the DAT coordinates the approach to the crisis at the tactical level with various stakeholders. The DAT also has the task of drawing up a picture of the situation that is as reliable and complete as possible. The DAT is chaired by the director of the directorate most concerned, in this case within DGKE. The DAT also consists of employees of the relevant policy departments and the relevant executive departments. The chairman of the DAT is also a participant of the DBT and therefore forms the substantive link between the two consultations.
- ***Departmental Communications Team.*** The DCT provides press and public information in the event of a gas crisis and advises the DAT and DBT on the communication strategy to be followed. The DTC can be set up at the request of the CGE and is then chaired by the Director of Communication. The DTC is next to the DAT in the crisis structure.

In the event of a gas crisis/emergency, in addition to the usual members, the DBT and DAT also[23] participate in liaisons from GTS. In the DBT, GTS is represented at MT level, in the DAT GTS is represented at employee level. On the initiative of the chairmen of the DBT and DAT, liaisons of regional network operators, gas producers or gas customers may also be invited. All departmental teams are supported by the DCC-EZK.

5.3.2 Interdepartmental crisis organisation

As a rule, a crisis in the gas supply will also affect the domain of other departments. That is why the DCC-EZK will inform the NCC as standard in the event of a gas crisis. The NCC decides, in consultation with DCC-EZK, whether the crisis teams from the interdepartmental crisis structure should be activated. Below is a brief explanation of each team. For a more detailed explanation, please refer to the *National Crisis Management Manual*[24].

- ***Ministerial Commission on Crisis Management.*** The MCCb is responsible for the coordination and decision-making of all measures and provisions with a view to an interdepartmentally coherent approach to the emergency. The decisions of the Minister of Economic Affairs and Climate Policy on the approach to the emergency are coordinated here with the decisions taken by other ministers to prevent and limit the consequences of the emergency within their own domain as much as possible. The MCCb decisions form the frameworks within which all ministries – including the Ministry of Economic Affairs and Climate Policy – fulfil their crisis responsibility.
- ***Interdepartmental Commission for Crisis Management.*** The ICCb coordinates and takes decisions at high-level officials. The ICCb prepares the decision-making of the MCCb.
- ***Interdepartmental Coordination Meeting.*** The ILO prepares an information picture, advises and supports the decision-making of the ICCb and the MCCb.

[23] As described in the Crisis Decision-Making Manual of the Directorate-General for K&E.

[24] National Handbook on Crisis Management.

- ***National Core Team Crisis Communication.*** The NKC advises the ICCb and MCCb on the government-wide communication strategy to be followed and coordinates its implementation. In the event of a gas crisis/emergency, the NKC is in close contact with the DCT of the Ministry of Economic Affairs and Climate Policy.
- ***National Operational Coordination Centre.*** The LOCC fulfils an important role in requests for assistance in the field of public order and security and advises on operational issues.

The composition of these teams is described in the National Crisis Management Handbook. Liaisons may be invited at the initiative of the chairmen if they so wish.

5.3.3 Crisis organisation at GTS, the national grid operator

The GTS crisis organisation has the following three teams:

- ***Strategic Crisis Team.*** The SCT sets priorities and gives direction to the approach within GTS's business operations. In the event of a gas crisis as defined in this plan, the strategic decisions on the distribution of gas (ladder of measures) are not prepared by the SCT but by the DBT of the Ministry of Economic Affairs and Climate Policy for formal decision-making by the Minister of Economic Affairs and Climate Policy. The SCT advises the DAT and DBT, through the GTS liaisons in both departmental teams.
- ***Tactical Crisis Team.*** The TCT has the task of establishing a coordinated approach between GTS and Gasunie. At the operational level, the TCT is in general charge in the event of an emergency. The TCT is also in contact with internal and external crisis partners in the gas sector, including customers and other network companies, and consults with them about gas supply and measures to be taken.
- ***Operational Crisis Team.*** The OCT is responsible for the implementation of the GTS/Gasunie approach to the crisis.

The TCT is compiled taking into account the nature of the gas crisis/emergency: only relevant functions are called up and activated. The chairman of the TCT decides on a case-by-case basis who will join the team. The OCT consists of representatives from several departments and disciplines of GTS/Gasunie. The SCT consists of the TCT, supplemented by one or more members of Gasunie's Executive Board.

5.3.4 Other crisis teams

Section 5.2 explains which parties are (or may be) involved in (the mitigation of effects of) a gas crisis. Many of these parties will scale up their own crisis organisation in the event of an emergency. In addition to parties in the energy domain, security regions may also scale up in order to deal with the acute consequences of a gas crisis on public order, safety and health.

On the basis of the national covenant for cooperation agreements between security regions, the police and network operators for gas and electricity, liaisons of the network operators involved for gas and electricity join the teams from the safety region ((Regional) Policy Team (R)BT, ROT and Command Place Incident (CoPI)) if requested. In the event of an incident involving several safety

regions, the source region organises, if desired, a single point of contact and coordination for the grid operator(s) from the various safety regions.

As a rule, the Ministry of Economic Affairs and Climate Policy will not have direct contact with the teams from the security region. This contact goes through the NCC, the LOCC and the (crisis teams of the) grid operator(s).

6 Measures on unnecessary consumption by customers who are not protected

Measures that reduce consumption by customers who are not protected, without forcing these customers to stop purchasing (for a detailed description see paragraph Emergency):

- Measure C.1: Calls for a reduction in natural gas consumption. The likely effect is uncertain, and depends in particular on the willingness of customers to limit the purchase.
- Measure C.4: Temporary gas consumption reduction subsidy scheme (tender). The likely consequence is that non-protected customers who subscribed to the tender prior to the emergency and therefore entered into a contract with GTS will purchase less.

The above measures are administrative measures. The corresponding main actors and the procedures to be followed are set out in Chapter 2.

Measures that imperatively limit consumption by customers who are not protected (for a detailed description see paragraph Emergency):

- Measure C.5: Mandatory curtailment of gas offtake by non-protected users. The likely consequence is that non-protected customers will no longer purchase gas, or will consume less gas, and the expected effect is large.

The corresponding main actors and the procedures to be followed of the above measures are set out in section 2.4.

7 Emergency tests

Real-time emergency response simulations will be carried out at least in the period 2023-2027. The actors involved are the Ministries of Economic Affairs and Climate Policy and the Ministry of Justice and Justice, GTS, and, depending on the scenario, other natural gas companies, electricity companies, other ministries, security regions, industry, etc.

Procedures that are tested are the crisis manuals of GTS and the Ministry of Economic Affairs and Climate Policy and the crisis manuals and procedures of participating actors. For each test, a previously unknown scenario is simulated with medium and large consequences. If the contingency plan is updated in the period 2023-2027, it makes sense to carry out an additional test, with a specific focus on the adapted parts of the BH-G.

The aim of the test is to uncover points of attention in the BH-G. This may concern the way in which we work together in the crisis processes, but also the application of measures. The initiative to have these tests carried out lies with the Ministry of Economic Affairs and Climate Policy.

8 Regional dimension

The following texts have been developed with and by the regional risk groups of which the Netherlands is a member pursuant to the EU regulation, namely:

Risk groups for gas supply from the east:

a) Belarus: Belgium, Czech Republic, Estonia, Latvia, Lithuania, Germany, Luxembourg, Netherlands, Poland, Slovakia (coordinator: Poland);
b) Baltic Sea: Austria, Belgium, Czech Republic, Denmark, France, Germany, Luxembourg, Netherlands, Slovakia, Sweden (coordinator: Germany);

Risk groups for gas supply around the North Sea:

c) Norway: Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom (coordinator: France);
d) Denmark: Denmark, Germany, Luxembourg, Netherlands, Sweden (coordinator: Denmark);
e) The United Kingdom: Belgium, Germany, Ireland, Luxembourg, the Netherlands, the United Kingdom (coordinator: the United Kingdom)
f) Low-calorific gas: Belgium, Germany, France, Netherlands (coordinator: Netherlands).

It is the coordinators of the various groups who take the lead in this, with English being the working language.

8.1 Measures to be adopted per crisis level

8.1.1 Measures within the low calorific gas risk group

General measures at all crisis levels

In case the situation within one of the low calorific gas risk group Member States gives ground to raise one of the crisis levels the competent authority of that Member State will inform the Directorate-General for Energy of the European Commission as well the competent authorities of the risk group Member States. This will allow the Commission as well as the members of the L-gas risk group to prepare for a situation in which the supply of low calorific gas may/will significantly deteriorate.

In such a situation article 14(1) of EU Regulation 2017/1938 obliges natural gas undertakings to provide daily information to their competent authority and the Commission may request to be provided with this information as soon as possible. Given the central role of the Netherlands in the supply of low calorific gas, it has been agreed that the Netherlands will collect this information from the competent authorities of the other involved Member States. The Netherlands will subsequently group this information and make it available to all the involved competent authorities and, if so requested, to the Commission.

Early warning levelWithin the low calorific gas risk group no specific measures are foreseen at the early warning level.

Alert level

Within the low calorific gas risk group no specific measures are foreseen at the alert level as the market is still able to manage the situation. Nevertheless, the involved competent authorities as well as their TSO's may ask shippers and gas consumers to voluntarily increase their inflow of gas or reduce their off-take of gas. The expected impact will however most likely be limited.

Emergency level

The measures that will be taken within the low calorific gas risk group at the emergency level are similar to measures described in paragraph Emergency for the Netherlands, although their impact is expected to be larger.

To ensure that there is proper coordination between the competent authorities the Commission will be asked to declare a regional emergency for the low calorific gas region.

8.1.2 Measures within the other risk groups

1. Eastern gas supply risk groups:
    a) Belarus: to be developed by Poland;
    b) Baltic Sea: to be developed by Germany.
2. North Sea gas supply risk groups:
    a) Norway: to be developed by France;
    b) Denmark: to be developed by Denmark;
    c) United Kingdom: to be developed by the United Kingdom.

8.2 Cooperation mechanisms

8.2.1 The cooperation mechanisms in the low calorific gas risk group

The cooperation mechanism in the low calorific gas risk group in an emergency is based on appropriate and effective coordination between different stakeholders and competent authorities in the Member States. First, this means that the dispatching centers from the TSO's have frequent contacts in an emergency to analyze and control the situation. TSO's are challenged to run their networks as efficiently as possible either through incentives or other mechanisms, and as such solving constraints on cross-border points is part of the day-to-day operational business of TSO's. Neighboring dispatching centers work closely together, where required, optimizing gas flows and operation of the network in the region. The neighboring TSO's have a history of cooperation and experience in the past years, following the situation of dwindling indigenous production and frequent interaction on infrastructure projects, transit and storage capacity.

Secondly, in case of a constraint at an interconnection point (whether this is due to maintenance, climatic conditions or interruption of supply) NNOs inform each other and relevant shippers immediately through bilateral contacts and through publication on the respective websites. Various actions can be taken to overcome or minimize the constraint. Either through the balancing regimes, or by re-routing gas via other entry/exit points in case the preferred route is constrained.

In addition, article 14(1) of Regulation 2017/1938 obliges natural gas undertakings to provide daily information to their competent authority in case one of the crisis levels referred to in article 11(1) has been declared. The Commission may request to be provided with this information as soon as possible. Given the central role of the Netherlands in the supply of low calorific gas, it has been agreed between the risk group Member States that in case one of crisis levels has been declared, the Netherlands will collect the information mentioned in article 14(1) from the competent authorities of the other involved Member States. The Netherlands will subsequently group this

information and make it available to all the involved competent authorities and, if so requested, to the Commission.

The Netherlands will also coordinate the establishment of the assessment mentioned in article 14(3) and will provide this to the Commission as soon as possible and at the latest six weeks after the lifting of the low calorific gas emergency. The other involved competent authorities will provide the Netherlands timely with all the information necessary for the assessment.

Finally, and related to the coordination activities as described above regional issues related to the security of supply emergency are addressed and discussed in the low calorific gas risk group. The low calorific gas risk group activities have been and will be conducted within the framework of the Pentalateral Gas Platform. The Netherlands currently acts as the group's coordinator. The Benelux Secretariat provides logistic support. National Regulatory Authorities (when not the Competent Authority), TSO's (including ENTSOG) and the Commission are also invited. The members of the low calorific gas risk group, in particular the competent authorities, meet each other regularly, either within the framework of the risk group or within the broader Pentalateral Gas Platform. Meetings and calls can be organized upon need very fast.

If necessary, these arrangements make it possible to scale up rapidly to the political level if needed. The earthquake in Zeerijp in 2018 illustrates this. Directly after this earthquake there has been a meeting of the responsible directors-general of the low calorific gas countries to discuss the situation, followed by bilateral phone calls between the Dutch Minister of Economic Affairs and Climate Policy and his colleagues.

8.2.2 The cooperation mechanisms in the other risk groups

Eastern gas supply risk groups:a) Belarus: to be developed by Poland; b) Baltic Sea: to be developed by Germany.

North Sea gas supply risk groups:

c) Norway: to be developed by France;
d) Denmark: to be developed by Denmark; e) United Kingdom: to be developed by the United Kingdom.

8.3 Solidarity among Member States

Following the provision of EU-regulation 2017/1938 the Netherlands is obliged to conclude solidarity arrangements with Belgium, Germany and the United Kingdom as the Dutch gas network is directly connected within the gas network of those of the L-gas risk group. However, according to article 13 (11) of EU-regulation 2017/1938 the Netherlands is exempted from this obligation for the purpose of receiving solidarity for as long as it can cover the gas consumption of its solidarity protected customers from its own production.

The gas demand of the Dutch households varies customers fluctuates between 7 and 10[25] bcm per year, depending on the temperature, while the current Dutch gas production (2022) lies in the order of 11 bcm per year from the small fields.[26] Moreover, all Dutch solidarity protected customers use low calorific gas which cannot be obtained from elsewhere. The only measure to be taken in this respect is that the Netherlands requests other low calorific gas consuming countries (Belgium, France and Germany) to reduce their off take of Dutch low calorific gas (measures 2 and 6). Ultimately the exports may have to be blocked (measure 8).

The Netherlands are however obliged to conclude solidarity arrangements with the afore mentioned Member States to provide solidarity to those countries if needed and if so requested. Proposals from those Member States regarding the solidarity arrangements are to be awaited.

[25] https://www.cbs.nl/nl-nl/nieuws/2023/07/gasverbruik-nederland-in-2022-laagste-in-50-jaar

[26] https://www.tno.nl/nl/newsroom/2023/09/binnenlandse-gasproductie-blijft-achter/#:~:text=De%20daadwerkelijke%20gasproductie%20in%202022,was%20verwacht%20door%20de%20gasbedrijven.