

RECOMMENDATIONS

COMMISSION RECOMMENDATION (EU) 2018/177

of 2 February 2018

on the elements to be included in the technical, legal and financial arrangements between Member States for the application of the solidarity mechanism under Article 13 of Regulation (EU) 2017/1938 of the European Parliament and of the Council concerning measures to safeguard the security of gas supply

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Article 13(12) of Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010 ⁽¹⁾,

Whereas:

- (1) Article 194(1) of the Treaty on the Functioning of the European Union (TFEU) states that EU energy policy should aim for security of energy supply in the Union, in a spirit of solidarity between Member States.
- (2) The Regulation on security of gas supply is intended to enhance solidarity and trust between the Member States and to allow the internal gas market to function for as long as possible, even when there is a shortage of supply.
- (3) The Regulation introduces, for the first time, a solidarity mechanism between Member States to mitigate the effects of a severe emergency within the Union and ensure that gas can flow to solidarity-protected customers.
- (4) When adopting the measures needed to implement the solidarity mechanism, Member States have to agree on a number of technical, legal and financial issues in their bilateral arrangements and describe them in their emergency plans.
- (5) To assist Member States with implementation, and having consulted the Gas Coordination Group, the Commission has prepared this non-binding guidance on the key elements that should be included in such arrangements,

HAS ADOPTED THIS RECOMMENDATION:

1. Member States should follow the legally non-binding guidelines in the Annex to this Recommendation. These guidelines should help Member States put in place technical, legal and financial arrangements to apply the solidarity obligations in Article 13 of Regulation (EU) 2017/1938 and describe them in the emergency plans they are required to draw up under the Regulation.
2. This Recommendation shall be published in the *Official Journal of the European Union*.

Done at Brussels, 2 February 2018.

For the Commission
Miguel ARIAS CAÑETE
Member of the Commission

⁽¹⁾ OJ L 280, 28.10.2017, p. 1.

ANNEX

I. INTRODUCTION

Regulation (EU) 2017/1938 ('the Regulation') translates the concept of solidarity into practice and establishes a solidarity mechanism between the Member States that comes into play when the conditions set out in the relevant provisions are fulfilled. Solidarity is a mechanism of last resort: it allows gas to flow uninterrupted, in a spirit of solidarity, to the most vulnerable. These are household customers and certain essential services defined as 'solidarity-protected customers' in Article 2(6) of the Regulation.

1. The solidarity mechanism

If a Member State requests solidarity, the solidarity mechanism includes an obligation for the other directly connected Member States to prioritise supply to solidarity-protected customers in the requesting Member State over domestic customers with no solidarity protection. This is only necessary where the market fails to deliver the necessary gas volumes ⁽¹⁾. The limits on the help a Member State can provide are:

- the available interconnection capacity,
- the amount of gas necessary for it to supply its own solidarity-protected customers where the gas supply to them is threatened,
- the safety of its own gas network, and
- for certain countries, the supply to critical gas-fired power plants to maintain the safety of the electricity supply.

As a last-resort measure, solidarity can only be triggered by a requesting Member State where the market, both in the requesting Member State and in any of the potential provider Member States, fails to offer the necessary gas volumes, including those offered voluntarily by non-protected customers, to meet the demand from solidarity-protected customers. Moreover, the measures in the requesting Member State's emergency plan, including forced curtailment down to the level of solidarity-protected customers, must have been exhausted. Despite these strict conditions for triggering solidarity, the mechanism provides households and essential social services with the certainty and security of an uninterrupted gas supply.

Under such circumstances, it is likely that non-market measures or curtailments have either already started or are imminent in the potential provider Member States as well. Otherwise, offers of certain gas volumes would still exist and gas could still flow to where it is needed following price signals (assuming they exist), without the need to trigger solidarity. The solidarity mechanism is effectively a temporary reallocation of the remaining gas from customers that are not solidarity protected customers in one Member State to solidarity-protected customers in another, within the same integrated European gas market. Solidarity can only be provided while the gas network is still able to safely reallocate and transport gas ⁽²⁾.

The different elements of a bilateral arrangement dealing with the legal, technical and financial aspects of solidarity are already partly covered by Article 13 of the Regulation. In addition, in their bilateral arrangements the Member States have to agree on all necessary elements and details so as to provide certainty and security to all involved in making the solidarity mechanism work. These arrangements have to be described in the respective emergency plans; in particular, the compensation mechanism, or at least a summary of it, must be included.

Compensation as described in Article 13 of the Regulation is wide-ranging. It encompasses payments for gas and additional costs (such as transport) for deliveries to solidarity-protected customers in the Member State requesting

⁽¹⁾ See Article 2(6) and Article 13 of the Regulation.

⁽²⁾ For this reason the measures in the emergency plan must ensure that the gas transmission system in the Member State requesting the solidarity is technically capable of accommodating the inflows (e.g. there is an adequate level of linepack available) when a solidarity action is triggered in an advanced stage of emergency.

solidarity, along with payments to customers in the Member State providing solidarity for being curtailed. For the purpose of these guidelines, compensation in this broader sense is referred to as 'compensation for solidarity'. Compensation for damages incurred due to curtailment is referred to as 'compensation for curtailment'.

There are several conditions for solidarity to work properly.

Firstly, market-based measures should be pursued for as long as possible. Member States need to make every effort to set up a mechanism or platform that allows for voluntary demand-side response. This is in the interest of the potential provider and requesting Member States alike as, alternatively, non-market measures — such as forced fuel-switch or curtailment of customers — will need to start at an earlier stage. It is also in line with the general principle in the Regulation that the market should be given maximum leeway to solve gas supply issues.

Secondly, wholesale prices need to be allowed to move freely, even during an emergency; freezing or capping prices will not allow price signals to reflect the need for additional gas, and so gas will not flow where it is needed.

Thirdly, cross-border access to infrastructure should be maintained technically and safely in accordance with Regulation (EC) No 715/2009 of the European Parliament and of the Council ⁽¹⁾ at all times, even in an emergency. Depending on the technical constraints in each Member State, arrangements should ensure that interconnectors, LNG terminals, underground gas storage facilities, hubs and demand-side offers, where appropriate, are fully accessible to market players across the border. This will delay the need to trigger solidarity in the Member State facing supply difficulties.

Fourthly, Member States are encouraged to cooperate throughout the different stages of an emergency. Effective cooperation in the early stages could delay the need to trigger solidarity. It would also prevent the development of potentially different gas prices (e.g. following the value of lost load for curtailed customer groups) on connected markets and act as a disincentive for (providing) solidarity.

2. Legal basis

Article 13(12) of the Regulation states that the Commission must provide legally non-binding guidance on the key elements of the technical, legal and financial arrangements by 1 December 2017, after consulting the Gas Coordination Group. That guidance must in particular cover how to apply the elements described in Article 13(8) and (10) of the Regulation in practice.

3. Scope of the guidelines

Article 13 of the Regulation identifies several elements and aspects of the solidarity mechanism that need to be agreed and included in bilateral arrangements. Offering useful guidance on these and any further elements that might be included in such arrangements first requires a better understanding of the situation in which solidarity might be triggered and the efforts and basic principles that could prevent such a situation from emerging at all. The current non-binding guidance does not and cannot aim at providing an exhaustive and prescriptive list appropriate for all Member States, as they must have the freedom to choose solutions that best suit them, given their capabilities, existing frameworks, situation and priorities. Instead, it recommends the use of a set of necessary and optional elements, describes possible ways of running certain solidarity measures, and offers examples and best practices.

The proposed approach is for Member States to use existing national frameworks and procedures wherever possible, or to adapt them as necessary for solidarity purposes. This may include, for example, the use of existing platforms for demand-side measures or existing customer compensation mechanisms.

⁽¹⁾ Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 (OJ L 211, 14.8.2009, p. 36).

II. LEGAL, TECHNICAL AND FINANCIAL ARRANGEMENTS

1. Legal arrangements

The objective of the legal arrangements is to provide legal certainty to all involved in providing or receiving gas in solidarity situations. Member States involved in applying the solidarity mechanism are advised to put in place clear, transparent and effective legal arrangements so that stakeholders know the rules and procedures for cross-border solidarity.

Article 13(10) of the Regulation requires that arrangements be put in place between interconnected Member States. At present, there are Member States that are not physically connected to any other Member State ⁽¹⁾, a group of Member States that are connected to each other but not to any other Member State ⁽²⁾, and several Member States that have a common border or exclusive economic zone but are not directly connected to each other ⁽³⁾. With infrastructure projects for interconnections currently under development, this may change. Should the interconnections come online after 1 December 2018, the relevant Member States will need to put in place the legal, financial and technical arrangements set out in Article 13(10) of the Regulation at the earliest opportunity.

1.1. Member States concerned and identification of third country (Article 13(2))

The Member States concerned by the solidarity mechanism are:

- the Member State that requested solidarity, and
- all Member States directly connected with the requesting Member State.

All directly connected Member States should conclude bilateral arrangements on applying the solidarity mechanism in advance, unless the Regulation provides for an exemption from such an obligation. If there is more than one Member State that can provide solidarity, the requesting Member State must consult all of them and request offers for the gas volumes it needs to supply the solidarity-protected customers. Any such offer gives practical form to the gas price agreement included in the prior bilateral arrangement. This agreement may contain a reference to a market price or an agreed methodology for calculating the gas price. Once the Member State requesting solidarity selects one or more offers, it identifies the Member State(s) actually involved in providing solidarity.

The obligation of other Member States that could provide solidarity but whose offers have not been selected is temporarily suspended. If the crisis situation further deteriorates the Member State that has asked for offers can turn to them at any time to request solidarity. However, the request will have to be resubmitted, given that circumstances are likely to change with time (for instance the gas price may change or the volume of potentially available gas may decrease). The Member State that receives such a request is advised to update its offer, taking account of any changes in the situation (gas volumes in underground storage, flows, temperature, consumption, etc.). For that reason, the Member States whose obligation has been temporarily suspended should be kept informed about the situation of the requesting Member State. The Commission will closely monitor the situation in the Member State receiving the solidarity.

In specific situations, the concept of directly connected Member States also covers a connection via a third country. Here, the right to request and the obligation to provide solidarity depends on the existing agreements between the Member States and the agreement of the third country concerned. The agreement between the Member States would have to indicate that the third country will have to commit to transit the gas volumes sent through its territory while solidarity is being provided. Without this commitment solidarity may not necessarily be achieved.

⁽¹⁾ Cyprus, Finland and Malta.

⁽²⁾ Estonia, Latvia and Lithuania.

⁽³⁾ Poland-Lithuania, Finland-Estonia, Finland-Sweden, Malta-Italy, Cyprus-Greece, Hungary-Slovenia. Poland-Czech Republic, Poland-Slovakia, France-Italy.

1.2. Request for solidarity

Crisis situations call for fast responses. Therefore, the request for solidarity should be short, standardised and contain a minimum amount of necessary information. Ideally, Member States concluding a bilateral arrangement may consider agreeing on a template and attach it to the arrangement as an annex. The following information would appear to be the minimum needed to efficiently respond to a solidarity request:

- name of the requesting Member State, including the entity in charge and contact person(s),
- name of the Transmission System Operator (TSO) or market area manager (where relevant) and responsible contact person(s),
- volume of gas requested (measured in a commonly agreed unit);
- information about gas pressure,
- indication by the Member State requesting solidarity of preferable delivery point(s),
- a request for an offer(s), including price (see section 3.1), volume, delivery points and time of delivery,
- a request to indicate the timing of the first possible delivery and the anticipated duration of providing supplies (indicating the anticipated period during which the requested Member State will provide solidarity),
- a reference to the commitment by the requesting Member State to pay compensation for solidarity.

A template for the replies by the requested Member States could ensure easier comparability and understanding of the quantities and conditions offered in solidarity. The template could be pre-filled with information known when the Member States enter into a bilateral arrangement and attached to the respective emergency plans.

1.3. Start and end of solidarity exercise

The request for solidarity is valid and triggers the obligation to provide solidarity from the moment the request is made. This will not be affected by the checks that the Commission conducts pursuant to Article 11(8) of the Regulation into whether the declaration of an emergency by the Member State requesting solidarity was justified and the measures taken to execute the actions listed in the emergency plan. The Commission has 5 days to carry out this verification procedure. It is unlikely that a Member State will request solidarity less than 5 days after declaring an emergency, since it will usually take some time for problems with the gas supply to reach a level that justifies making such a request. Should it do so, the Commission's checks into the justification for declaring an emergency will still be underway. However, any such ongoing verification should not impact the validity of the solidarity request.

The risk of misuse of the solidarity mechanism with an unjustified solidarity request is very limited, because of the far-reaching consequences and the strict conditions that must be fulfilled before the solidarity mechanism is triggered, namely:

- application of all emergency measures provided for in the emergency plan, and
- curtailment of customers without solidarity protection in the Member State requesting solidarity.

Should the Commission's checks come to the conclusion that a request for solidarity was not justified, the Member State that issued the unjustified request and received help from directly connected neighbours will pay for the gas received, together with additional costs to the Member States that provided help.

The obligation to provide solidarity ceases to apply when:

- after a verification procedure, the Commission concludes that declaring an emergency is no longer justified,

- the Member State that requested solidarity informs the Member States providing solidarity that it is again in a position to supply gas to its domestic solidarity-protected customers, and
- the Member State providing solidarity can no longer supply its own solidarity-protected customers.

It is also possible that, despite an ongoing acute gas crisis at home, the Member State that initially requested solidarity decides to renounce its right to request such solidarity — because it cannot afford to pay, for instance.

1.4. *Roles and responsibilities*

Member States should take ultimate responsibility for running the solidarity mechanism. This includes in particular the decision to request solidarity and the overall monitoring of how the entities responsible for specific tasks are operating the mechanism. The Regulation does not require the creation of new specific entities. Preferably, Member States are advised to allocate responsibilities to existing entities or, in special circumstances, to new entities, taking account of their organisational structure and experience in crisis management and emergency response. In order to reduce costs, and particularly to avoid fix costs, Member States could, rely on existing mechanisms where possible. The guiding principle in this respect should be providing solidarity efficiently and effectively.

The competent authorities under the Regulation would be responsible for implementing the framework, with tasks and responsibilities clearly assigned to the respective actors such as the TSOs, the national regulatory authority and gas undertakings. The competent authorities are also best placed to prepare the bilateral arrangements with competent authorities in the directly connected Member States. These could later form the legal basis for the solidarity, including payment of compensation and financial settlements after solidarity has been provided. Member States or competent authorities are also best placed to be in charge of sending or receiving requests for solidarity, offers for gas volumes and providing a notification when the solidarity application has been suspended. The financial responsibility related to compensation should ultimately also lie with the Member State.

Subject to the technical and legal constraints in each Member State, national regulatory authorities are best placed to lead or at least be involved in the process of calculating compensation costs on the basis of a methodology that they have developed beforehand and published in the emergency plan. The Agency for the Cooperation of Energy Regulators could be involved in this process. The TSOs should preferably be in charge of dispatching the necessary gas volumes, and do so in a cost-efficient manner.

The TSOs (or a balancing entity) are best placed to take responsibility for coordinating all technical aspects and implementing all necessary operational measures when solidarity is applied. The respective entity in the Member State that provides solidarity could also be the entity in charge of collecting claims for gas and the additional costs, verifying them and channelling them to the entity in charge in the Member State that benefits from solidarity. In this context, a one-stop-shop approach would be useful. The Member States are advised to identify and agree on the entity in charge of collecting and channelling claims for compensation for curtailment.

Making provision for a mediator in the bilateral arrangements concluded between Member States might reassure both of them about the payment and calculation of compensation costs. The mediator would help to solve any disagreement about the amount of the compensation to be paid.

1.5. *Legal form of the bilateral arrangements*

There is no explicit requirement with regard to the legal form of the bilateral arrangements. The Member States are free to find a legal form that creates rights and obligations between them if the solidarity mechanism is applied. The right to request solidarity and the obligation to provide solidarity are laid down in Article 13 of the Regulation. The bilateral arrangements will define how these rights and obligations established in Union law are to be exercised. The arrangements will be operational, not political in nature. On the face of it, for implementation purposes it may be enough for the relevant authorities to conclude a binding administrative arrangement. This might include existing bilateral treaty provisions, contractual arrangements between TSOs or specific licensing conditions for gas entities, provided they are overseen by the relevant competent authorities. On the other hand, a non-binding legal instrument such as a memorandum of understanding would not be sufficient, as it does not create legal obligations between the participants. Arrangements in the form of a memorandum would therefore fall short of the requirements of Article 13 to create a legally binding system for solidarity, and could be interpreted as insufficient implementation of Article 13(10).

2. Technical arrangements

The purpose of the technical arrangements is to describe all necessary technical provisions and conditions that would enable the solidarity mechanism to work in practice. This would require compulsory prior sharing of information about the technical capability and constraints of the relevant gas infrastructure and the maximum theoretical volumes of gas relevant for solidarity, together with the certainty that there are no undue technical constraints that would make solidarity difficult. If technical or other constraints exist, Member States are encouraged to identify and agree on mutually acceptable solutions to be applied at interconnection points if the solidarity mechanism is triggered.

Depending on the technical constraints within each Member State, it may be that the TSOs (or a balancing entity) are best placed to take responsibility for coordinating all technical aspects and implementing all necessary operational measures when solidarity is applied, based on their knowledge of the gas systems and their existing cross-border cooperation schemes ⁽¹⁾. These existing cooperation structures, agreements and experience should be taken into account in, or even serve as a basis for solidarity situations. In any case, a clear overarching framework must be identified (if already in place) or established, including the technical conditions, so that the necessary cooperation can be undertaken with legal certainty.

Technical data can be updated as necessary in the plans.

2.1. Technical solutions and coordination (Article 13(10)(c))

Technical solutions and arrangements can be made for the various parts of the infrastructure in a given Member State. This will provide a clear picture of the assistance available, the technical constraints involved and a better estimation of the costs of implementing each measure (if relevant). As potential crisis situations can be very different, it is important that TSOs (or a balancing entity) are left with a wide range of options and tools to draw on. An indicative and non-exhaustive list of technical solutions can be described in the technical arrangements, so that both parties are aware of the steps that might be taken before and during an emergency for solidarity purposes. Hydraulic simulations of solidarity measures may be beneficial for the preparedness for such situations.

There will have to be coordination across the relevant TSOs or market area managers, distribution system operators (DSOs), national emergency coordinators, competent authorities and entities involved in delivering the gas to the solidarity-protected customers. This will mean that gas from demand reduction in one Member State can be made available and supplied to a directly connected Member State requesting solidarity. TSOs, DSOs, national emergency coordinators and other entities involved in the delivery of gas to solidarity-protected customers should be involved early enough in the discussions on solidarity provisions and possibly tasked to work together to execute the solidarity arrangements.

TSOs should also be entitled to utilise unused transmission capacity, whether allocated or not. In any event compensation for the cost of transmission should be paid according to agreed principles.

Access to hubs and other platforms should be maintained for as long as possible, even in an emergency (Article 13(4) of the Regulation) to prevent the need to trigger solidarity. Therefore, there must be constant access to LNG terminals, storage and interconnection capacity, including bi-directional capacity, to allow efficient cross-border flows (Article 13(10)(c)). These aspects should be explicitly tackled in the arrangements.

2.2. Gas volumes or the methodology for setting them (Article 13(10)(d) of the Regulation)

Member States should inform neighbouring Member States (i.e. potential providers of solidarity) about the theoretical maximum gas volumes they may request and the limit on interconnector capacity, for the sake of

⁽¹⁾ The TSOs already work together on access to flexible gas in neighbouring Member States. Some of them have operational balancing agreements with adjacent TSOs. These agreements enable collaboration that meets residual balancing needs, while also managing short-term supply shocks and better monitoring entry/exit flows.

transparency and as a basis for the discussions on the arrangements. Nevertheless, the exact gas volumes needed, requested and available will be only known when solidarity is triggered. For the calculation of these theoretical maximum gas volumes, the following elements should be taken into consideration as a minimum:

- the solidarity-protected customers concerned,
- the critical gas-fired power plants concerned (where applicable) and their associated gas volumes, and
- domestic gas production in the producing Member States.

The supply standard scenarios adapted to solidarity-protected customers could act as a good starting point for this calculation.

All Member States have to identify their solidarity-protected customers using the definition provided for in Article 2(6) of the Regulation and their annual gas consumption (average and peak).

The critical gas-fired power plants and associated annual gas volumes (Article 13(1), second subparagraph of the Regulation) may have an important impact on the gas volumes available for solidarity. In the Member State providing solidarity, such gas volumes limit the amount potentially available for solidarity; in some receiving Member States the critical gas-fired power plants are prioritised over solidarity-protected customers, but the gas volumes necessary for their operation have no impact on the volumes that may be required.

The arrangements should include a detailed list of the gas-fired power plants identified as critical for the electricity system (Article 11(7) of the Regulation), to which natural gas should be supplied even during solidarity. Such list should be established on the basis of a requests and assessment by the gas and electricity TSOs. The list of power plants should be duly justified, and demonstrate that the short-term switch-off of these plants could threaten the safety of the power system. Additionally, the Member States could consider to agree on how often the list should be checked and updated.

Depending on the specific crisis situation, only the gas volumes needed for the power plants identified in the arrangements as critical when solidarity is requested, will be considered necessary. This may concern, for example, plants in a certain region. An ad hoc information exchange on the situation should take place as part of the communication between the relevant entities (TSO, competent authority) in the Member States before and while solidarity is provided.

The gas-producing Member States must indicate their annual production.

The volumes mentioned above can be identified at the beginning of each gas year or at different intervals, based on latest available data, plan updates or on an ad hoc basis.

2.3. *Operational safety of networks (Article 13(7) of the Regulation)*

The arrangements may provide the description of the technical possibilities and constraints of the individual gas networks that need to be maintained for the gas system to operate safely and reliably. This is important information for both the provider and receiving Member States. The minimum elements to be described are:

- Maximum interconnection export capability and the circumstances under which the TSO will deliver up to maximum export capability. The circumstances may include, for instance, system pressure, linepack, the availability of gas at certain entry points, or the level of gas storage with a respective level of withdrawal capacity. Ideally, these details should be defined for individual interconnection points.
- Maximum domestic production and constraints, where applicable. Where domestic production exists, it may be increased for certain periods of time. The relevant options and limitations may be described.
- Where applicable, capacity available through a third country and the technical elements of the agreement on it (Article 13(2) of the Regulation).

3. **Financial arrangements**

Financial arrangements should ensure that gas supplied under the solidarity mechanism is paid for at an appropriate price. These arrangements might cover the calculation of costs, compensation for solidarity (including compensation for curtailment) and the payment procedures to be identified and established between the relevant entities.

A mechanism providing for compensation for curtailment should offer incentives for solutions based on market logic, such as auctions and demand-side response (Article 13(4) of the Regulation). This may include references to mechanisms linked to national emergencies which indirectly facilitate solidarity by ensuring that the market in the Member State providing solidarity functions for as long as possible. The financial arrangements should not introduce perverse incentives such as withholding gas or speculating on a higher price at a later stage in the emergency, which could themselves trigger the need for solidarity. Compensation for solidarity is supposed to cover the costs actually incurred; it cannot become a source of profit for the providing entity. The Member State receiving solidarity should promptly pay the provider Member State a fair price for the gas received. The latter will then determine how these funds are handled and how they fit with existing balancing neutrality arrangements.

Any compensation paid to customers who are curtailed in an emergency — whether this stems from the obligation to provide cross-border solidarity or a national emergency — should be the same as set out in national law.

In view of the above, Member States may maintain the existing national mechanism (on curtailment-related compensation) for purely national emergencies (i.e. where there is no request for solidarity). This gives them the freedom to decide whether they wish to pay compensation or not for curtailed industry. However, when a national emergency develops into a situation where cross-border solidarity is triggered, one option may be to distribute the compensation for solidarity paid by the requesting Member State to the helping Member State among all curtailed consumer groups (curtailment), regardless of whether they were curtailed before or after solidarity was triggered. This option would follow a scheme designed in the Member State providing solidarity, but would preferably be based on a 'value of lost load'-type approach. Alternatively, Member States may also decide to pay compensation received for solidarity into a centrally managed 'solidarity fund'. This way, existing national compensation mechanisms for curtailment stay within the Member States' remit and at the same time different approaches in Member States will not lead to different treatment of curtailed consumer groups within a country when solidarity is provided cross-border where compensation for solidarity is obligatory.

The main elements of the compensation for solidarity are the gas price and the additional costs arising in the helping Member State from making sure the gas gets across the border based on costs actually incurred that the national legal framework in the helping Member State allows to be paid out.

Different approaches to determine the gas price may be followed and agreed in the arrangements, depending on the level of market development in the Member State, the measures available or the stage of the emergency. However, it is important that the arrangements are clear about the agreed approach, under which circumstances they would apply and that they identify any known parameters that would be used (e.g. the premium, if the last known trade plus premium is chosen).

3.1. *Price of gas*

The financial arrangements should refer to the price of delivered gas and/or the methodology for setting the price, taking into account the impact on market operations (Article 13(10)(b) of the Regulation). This latter condition can be understood as aiming at a price or methodology that does not distort the market or create perverse incentives. The gas price serving as the basis for compensation for solidarity is determined (by market or other means) in the Member State providing solidarity.

(a) Market price

As a guiding principle, the price of gas should not be lower than the market price, as that would lead to perverse incentives. If the price is kept unfrozen and allowed to dynamically follow gas demand and supply, it can provide a signal even during an emergency. In developed markets, maximum flows through interconnectors would follow the price signal to Member States in an emergency. Under such circumstances no solidarity is assumed to have been triggered.

In less developed markets, where prices might not be dynamic throughout an emergency, it may be necessary to use different measures to set the gas price, but these could still be market-based. The maximum reference price for solidarity gas could correspond to the price of the last transaction/trade in the EU on an exchange or virtual trading point, following a regulatory check to see how robust the price is. Member States may also agree to link the gas price to a specific hub.

In Member States where strategic storage exists, the Member State or competent authority decides at which point in time within the emergency situation it will allow the release of gas from strategic storage. The 'market' price at the time of (or just before) the stock release should be the price to be paid by the receiving Member State ⁽¹⁾.

(b) Administrative pricing/curtailment

If there is no market price, other approaches to set the gas price may be necessary, such as the last known market price or average market price at the closest accessible exchange, virtual trading point or at an agreed hub. The average may cover a reasonable period of time before delivery (e.g. 5 to 7 days) and an identical period after delivery, with or without a premium. Alternatively, the price of the last known gas trade or measure with or without a premium may also be a pointer. A premium may be considered in order to fill in the gap — if such a gap exists — between the last known price and the curtailed customers' value of lost load ⁽²⁾. The price can also be derived from an alternative fuel to which the Member State providing solidarity needs to switch to free up the necessary levels of natural gas.

A value of lost load calculation can be used to determine the price of the curtailed gas volumes, as we can assume that industrial consumers know their own value. The value reflects the benefits that the specific consumer group has lost as a result of being curtailed. With this approach, it should be known or communicated to the competent authority or national regulatory authority in advance. Usually this will also be reflected in the curtailment order in the national emergency plans. Moreover, this approach makes it easy to compare 'offers' from different Member States (see Article 13(4) of the Regulation).

Lastly, it may be worth looking at a methodology for price-setting by the national regulatory authority or competent authority, or the use of a proxy, such as the price of call options.

(c) Willingness to pay

It may be reasonable to determine the maximum amount each Member State is willing to pay for gas in a solidarity situation. The maximum value would likely be the value of lost load for solidarity-protected customers in a given Member State. Should the price of gas surpass this value, it is not in the Member State's interest to ask for gas under the solidarity mechanism. This information, however, does not necessarily need to be part of the arrangements or be reflected in the plans.

3.2. Other categories of costs

The financial arrangements should cover any other categories of costs, including relevant and reasonable costs of measures established in advance (Article 13(8)(b) of the Regulation), that will have to be covered by fair and prompt compensation (Article 13(10)(e)). Additional costs should be kept to a minimum and attention be paid to avoiding double counting, as many of the additional cost elements may already be reflected in the price of gas. It can be assumed that most additional costs would already be reflected in the price of gas, with the exception of transport costs.

(a) Transport and associated costs

The compensation should cover transport and associated costs, such as LNG cargo costs, regasification fees, and so on. It can be agreed between the Member States that the necessary capacities are booked for the solidarity volumes when needed, so that transport-related costs are paid for using standard TSO procedures.

(b) Costs of release of strategic storage or having storage obligations

In case of strategic storage, the cost of release of strategic storage can be included for the relevant volume of gas, as they were established in advance — unless they are already reflected in the gas price.

In principle, if there is a market price at the moment of release of the additional volumes from strategic storage, the market price would already reflect the additional cost associated with such a measure — including the cost of establishing it in advance. Otherwise the measure would not have been invoked at that moment, as cheaper solutions would still be available.

⁽¹⁾ For instance, Italy's strategic storage is priced at EUR 63/MWh; Hungary's strategic storage is linked to the price on TTF a few days before release, plus a premium.

⁽²⁾ There are cases where the premium covers the 'insurance value' of the freed-up gas. According to the industry, this is in the area of between EUR 0,5 and EUR 1/MWh.

The costs of such non-market security of supply measures are usually socialised and form part of the end-user's bill. An agreed pro rata contribution to the cost — in line with the amounts thus released for solidarity purposes — may be added to the additional costs to be paid by the receiving Member State.

However, storage obligations only require certain gas volumes to be kept in storage at the beginning of the winter season; after that, the stored gas is used in response to market demand and prices. Therefore, no additional costs should be attached to its release on top of the gas price and transport costs. In any event, account should be taken of the particular ways in which Member States manage strategic storage and storage obligations.

(c) Cost of reducing an increased supply standard

Reducing an increased supply standard to normal levels is an obligation under the Regulation when an emergency begins in a neighbouring Member State and when cross-border impact is likely. There is no link between the reduction in an increased supply standard and a solidarity request, i.e. the costs of such measures cannot be covered by compensation.

(d) Damages for curtailed industries (compensation for curtailment)

Other costs may also cover the costs incurred from an obligation to pay compensation in the helping Member State, including damages to curtailed industry. Such costs can be included in the compensation cost if the national legal framework provides for the obligation to pay damages to curtailed industry, including compensation for economic damage, on the top of the gas price. The relevant methodology for the calculation needs to be included in the arrangements. There may be agreement to pass on the amount of compensation actually incurred to the entities which use the solidarity gas in the Member State receiving solidarity.

However, the cost of damages to curtailed industry may only be covered by compensation if they are not reflected in the gas price that the Member State requesting solidarity has to pay; the Member State that requested solidarity should not have to pay compensation for the same costs twice.

(e) Cost of judicial proceedings in the Member State providing solidarity

Other costs may also relate to reimbursement for any costs resulting from judicial proceedings, arbitration proceedings and settlements, along with any related costs from such proceedings involving the Member State providing solidarity vis-à-vis the entities involved in providing such solidarity (Article 13(8)(c) of the Regulation). However, such compensation should only be paid against proof of costs incurred.

In the event of litigation involving a Member State providing solidarity and entity over (insufficient) compensation from the Member State receiving solidarity, there should be safeguards to protect the latter Member State from collusive behaviour between the Member State providing solidarity and entity. There may be circumstances in which the entity concerned and the Member State where it is established go to court against each other for a higher gas price or for more compensation for the entity and collude to the detriment of the Member State requesting solidarity, which is not even part of the legal proceedings. Such circumstances should be avoided.

The above situation is different from a situation where a company in the Member State providing solidarity starts judicial proceedings against an entity in the Member State receiving solidarity over the price of gas or compensation for curtailment. In such a situation the company or entity that loses the case must pay the costs involved.

3.3. Indication of how fair compensation is calculated (Article 13(10)(f))

The following methods may be considered in calculating fair compensation:

- A simple sum of all the elements described in the section above.

- Time value of money: payment should be made promptly. However, Member States may agree on an interest rate to be applied to the compensation once a realistic period has elapsed after the provision of solidarity, and once the exact amount of the compensation has been calculated and agreed.
- Agreement between Member States using different currencies on the currency in which compensation should be calculated and paid, including the relevant exchange rate.

3.4. *Calculating the compensation of all relevant and reasonable costs and the undertaking to pay the compensation (Article 13(3))*

It is likely that the calculation of the exact payment to the Member State that provided solidarity and to entities in that Member State can only realistically happen sometime after the gas requested under the solidarity mechanism has been delivered. In their bilateral arrangement Member States can agree on the approach to calculating the price of gas and additional costs, and on a realistic deadline for the payment.

Information about the gas volumes actually delivered and any other relevant information for calculating the compensation must be sent to the relevant contact person(s) in the Member States involved in the solidarity exercise so that both can carry out a final calculation of the compensation. The information may be available from the TSO, DSO, storage operator, a supplier or market area manager, depending on the measure applied. The calculation of the compensation may be delegated to another predefined entity.

3.5. *Arrangements for payment (Article 13(8), last subparagraph, of the Regulation)*

As a guiding principle, existing procedures for domestic payments and compensation (or balancing-type transactions) in a Member State and existing roles and responsibilities in this regard should be maintained and applied wherever possible to compensation payments for solidarity between Member States as well. Arrangements between Member States should focus on how to connect or implement an interface between these existing national frameworks. The nature of solidarity may require making the Member State or competent authority the interface bearing ultimate financial responsibility.

3.6. *Roles and responsibilities: who pays whom, or who arranges payments*

When voluntary demand-side measures are still possible in the helping Member State, access to the relevant platform and interconnection capacity needs to be maintained. It should be possible for a buyer across the border to make payments in the same way as a local buyer would for the gas — either directly to the gas undertaking or, if gas is procured by a balancing entity through a balancing platform, using the payment procedures in force for that platform ⁽¹⁾.

When curtailments are introduced, any existing legal framework, payment process or authority responsible for managing the payments in the Member State providing solidarity could be used or adapted as necessary for compensation payments from a neighbouring country.

The ultimate beneficiary of solidarity is the household consumer. The gas needed to serve them is channelled by the supplier, with flows across the border handled by the TSO and ultimately delivered by the DSOs. In the event of curtailment, the gas supplier of the curtailed non-protected customer should be sure of continued payments, taking into account the solidarity volumes. These should be settled according to the compensation scheme in the Member State. The potential roles and responsibilities can be distributed as described in point 1.4.

3.7. *Description of and steps in the payment process*

Depending on the existing frameworks and how the interface between these frameworks is agreed by the Member States, the agreed procedures need to be included in the arrangements.

⁽¹⁾ For example, with the NetConnect Germany short-term balancing product the commodity is paid through a dedicated account managed by the market area manager.

Assuming Member-State-to-Member-State involvement in financial aspects — and in particular monitoring, checking and channelling claims after solidarity gas has been delivered — the relevant entity in the Member State providing solidarity calculates the amount of the compensation based on the volume of gas delivered, the agreed cost elements and the agreed calculation method and submits its request for payment to the relevant entity in the requesting Member State. The Member State that has received solidarity gas confirms the amount actually delivered, checks the calculation and, if it has no objections, pays within the agreed deadline. Financial processes within the Member States — such as distribution of compensation or charging compensation for solidarity — follow national rules (e.g. they may be applied directly to the offering/curtailed entity or socialised).

The deadlines for the compensation calculation for solidarity, scrutiny and payment must be included in the arrangements. The same applies to the applicable law and arbitration options in the event of a dispute arising from use of the solidarity mechanism.

III. CONCLUSION

Thanks to the Regulation on security of gas supply, for the first time in EU energy policy the political desire for solidarity between Member States has become a reality on the ground. Moreover, the Regulation elevates solidarity from the status of a nationally applied concept to that of an EU-wide safety net for the most vulnerable. It introduces far-reaching rights and obligations that provide households and essential social services with the certainty and security of an uninterrupted gas supply. The guidance in this document offers a wide range of options for making the solidarity mechanism work, while Member States remain free to choose the solutions that best suit them.
