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**REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN
PARLIAMENT**

reviewing the application of Regulation (EU) 2017/1938

{SWD(2023) 323 final}

Report on the Gas Security of Supply Regulation (EU) 2017/1938

1. Introduction

Regulation (EU) 2017/1938 on measures to safeguard the security of gas supply (“**the Gas Security of Supply Regulation**”) aims to prevent, and respond to, potential gas supply disruptions. It lays down the framework for EU emergency preparedness and resilience to gas disruptions.

Article 17 of the Gas Security of Supply Regulation tasks the Commission, on the basis of the assessments of the Member States preventive action plans and emergency plans, with drawing conclusions as to possible means to enhance security of gas supply at Union level and to submit by 1 September 2023 a **report** to the European Parliament and Council on the application of this Regulation, and where necessary, legislative proposals to amend this Regulation.

Over the past six years, since the adoption of the Gas Security of Supply Regulation, the gas security of supply landscape has undergone profound changes, most notably in 2022 after the Russian invasion of Ukraine - in response to which, the European Commission adopted the **REPowerEU Plan**¹, aiming to save energy, accelerate the clean energy transition and diversify the energy supply for the EU to fully mitigate its dependence on Russian gas as soon as possible.

As a result, **Russian gas imports have been to a large extent replaced** by supplies from alternative suppliers in the form of additional pipeline import from trusted partners and, above all, a considerable increase in LNG imports (50 bcm, or a 73% increase in 2022 year-on-year). Whereas Russian imports amounted to around 50% of the EU’s pipeline imports before the war, they represent now less than 10%, showcasing the unprecedented shift the EU’s gas system has undergone in the past year.

As part of the REPowerEU Plan, the EU also adopted the **revised Regulation (EU) 2023/435**, allowing Member States to finance in their respective REPowerEU chapters, under strict conditions, gas infrastructure investments aiming at diversifying from Russian gas and meeting immediate security of gas supply.

In addition to the REPowerEU plan, the EU adopted a set of regulations such as the **Gas Storage Regulation** (EU) 2022/1032 setting a 90% storage filling target, the temporary **Demand Reduction Regulation** (EU) 2022/1369 and its prolongation (Regulation (EU) 2023/706) setting a 15% gas demand reduction target and the temporary **Solidarity Regulation** (EU) 2022/2576, which among others provided the legal basis for joint purchasing of gas as well as reinforced the solidarity rules in case of an emergency. These regulations were adopted to ensure security of gas supply, complementing the existing Gas Security of Supply Regulation.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A230%3AFIN&qid=1653033742483>

The EU's **phase out of Russian gas** requires a strong emphasis on a continued **supply diversification**. This will mean a **growing importance of LNG** and thereby also a larger reliance on the global LNG market for the years to come.

Furthermore, in the longer-term, gas demand is expected to decrease at a different pace across sectors and Member States, which could result in a **changing demand profile** in the EU. Indeed, the future security of supply architecture must consider, and support, the ongoing **decarbonisation** efforts with continued electrification and the growing importance of **biomethane** and **hydrogen**. This requires an integrated strategy for the future decommissioning and repurposing of infrastructure to ensure an orderly transition that guarantees security of supply of natural gas, biomethane and hydrogen.

The EU's security of supply architecture will therefore need to continue to adapt according to the changes of the upcoming years and decades.

The adoption of this report aims at fulfilling the legal requirements of Article 17 of the Gas Security of Supply Regulation. Its timing has been slightly adapted to align it with **ongoing work on related areas** – taking into account in particular that Article 30 of the Solidarity Regulation foresees the review by 1 October 2023, by the European Commission, of the Solidarity Regulation².

Furthermore, several security of supply-related provisions are currently being discussed by the co-legislators in the framework of the **Hydrogen and decarbonised gas market package**³.

2. Commission assessment of Member States' Preventive Action Plans and Emergency Plans

Article 17 of the Gas Security of Supply Regulation requires the Commission to submit a report, based on the Commission's assessments of the updated Preventive Action Plans (PAPs) and Emergency Plans (EPs).

In 2019, Member States submitted their PAPs and EPs to the Commission, after which the Commission assessed the plans and issued a series of opinions⁴ with specific recommendations and points where the plans should be improved. The same process should take place in 2023 due to a regular 4-yearly update of the plans required by Articles 9(11) and 10(2) of the Gas Security of Supply Regulation, with Member States required to submit updated plans by March 2023.

² Chapter IV of the Solidarity Regulation concerns temporary measures applicable in case of a gas emergency. It complements the Gas Security of Supply Regulation.

³https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/hydrogen-and-decarbonised-gas-market-package_en. For more details, see section 3.7

⁴ https://energy.ec.europa.eu/topics/energy-security/commissions-opinions-preventive-action-plans-and-emergency-plans_en

However, at the time of writing, the Commission has received both plans only from seven Member States, the majority of which were received in June-July 2023⁵. Consequently, the Commission's assessment will be based on the PAPs and EPs submitted in 2019, as well as on the lessons learnt from the past year(s); also, given that the updated plans were largely missing, the Commission circulated a questionnaire to consult members of the Gas Coordination Group on the provisions of the Gas Security of Supply Regulation.

A more elaborate explanation of the context and substance of the provisions, as well as more details of the Commission's review of the provisions of the Gas Security of Supply Regulation can be found in the Staff Working Document SWD(2023)323.

3. **Review of the Gas Security of Supply Regulation and possible means to enhance security of gas supply and lessons learnt from the gas crisis**

3.1. Gas Coordination Group

The Gas Coordination Group (GCG) derives its legal basis from Article 4 of the Gas Security of Supply Regulation, which stipulates that the GCG is chaired by the Commission and is composed of representatives of Member States, ACER, ENTSOG and bodies representing industries and consumers. The Commission can, in consultation with Member States, decide on the composition of the GCG, to ensure it is fully representative.

In 2022, the GCG was convened a record number of 24 times. In particular, the GCG discussed latest developments regarding security of gas supply in the context of the Russian invasion of Ukraine and subsequent gas supply disruptions. In addition, exchanges were facilitated on best practices on national preventive and emergency measures, as well as on next steps for EU-wide measures to enhance preparedness, which played a key role in informing the Commission to make new legislative proposals.

Representatives of the GCG indicated in their responses to a questionnaire circulated by the Commission in May 2023 that they appreciated the functioning of the group, primarily **praising its adaptable and flexible format**.

In addition, the Commission extended ad hoc **invitations to third countries** for a GCG meeting to exchange views on security of gas supply. Several Member States expressed their positive opinion to continue inviting supplier or transit countries with greater frequency.

3.2. The infrastructure standard

Article 5 of the Gas Security of Supply Regulation provides that Member States shall ensure that in case of a disruption of the single largest infrastructure (N-1), the total gas demand can be

⁵ EU Pilots were sent in early June 2023 to Member States whose Preventive Action Plans, Emergency Plans and Risk Assessments are missing. For further details, see sections 3.4.1 and 3.5 of the accompanying Staff Working Document.

satisfied during a day of exceptionally high gas demand. This includes an obligation to enable permanent physical bi-directional capacity on interconnectors between Member States unless an exemption is granted.

Respondents to the questionnaire circulated to the GCG indicated that the infrastructure standard was a good incentive to have adequate infrastructure capacities, in particular to **facilitate the reversed West to East flows** observed in 2022 after the Russian invasion of Ukraine. Others stressed the need to complement this infrastructure-based approach with a larger focus on the supply side, e.g. by having complementary diversification standards. Additional provisions can be considered to prevent future vulnerabilities to a single supplier. This could be done via further **information exchange** under Article 14 or an additional **S-1 standard**, while balancing security benefits with potential costs or inefficiencies.

Respondents to the questionnaire indicated that while stricter standards may help to improve security of supply, **avoiding the risk of creating stranded assets** should be of primary concern.

3.3. Supply standard and protected customers

Article 6 of the Gas Security of Supply Regulation sets out the **supply standard**, which provides that Member States require gas undertakings to take measures to ensure the gas supply to protected customers under a set of pre-defined circumstances.

Protected customers as defined under Article 2(5) include households. Furthermore, Member States may under certain conditions include (1) SMEs, (2) essential social services and (3) district heating. However, during the energy crisis of 2022, the role of voluntary demand reduction of all sectors became of increasing importance. Therefore, the Solidarity Regulation introduced the possibility for Member States to take measures that reduce the non-essential consumption of protected customers.

Many Member States indicated that they are not experiencing major challenges implementing the supply standard. Regarding protected customers, some Member States pointed towards difficulties estimating the protected customers' demand. Some respondents considered it useful to have a **further harmonisation of the protected customers' definition** on EU level, although national specificities need to be considered.

Several respondents indicated that they consider that the **limitation of non-essential consumption** of protected customers (currently foreseen in the Solidarity Regulation) should be made permanent, as it provides additional flexibility in order to meet security of supply objectives.

Given that household gas demand may in some Member States be phased out sooner than in other sectors, a reconsideration of the protected customers definition may in the future be required to adjust to a changing demand profile, while ensuring that residential needs are met, in particular as regards the gas consumption of vulnerable consumers.

3.4. Risk assessments and regional risk groups

To be prepared for possible security of supply risks, the Gas Security of Supply Regulation establishes an architecture of risk assessments and regional risk groups, laid out in Article 7 and Annexes I, IV and V of the Regulation.

This architecture starts with an EU-wide simulation of gas supply and infrastructure disruptions conducted by ENTSOG, after which Member States make a national risk assessment and common risk assessment in dedicated regional risk groups, corresponding to the main supply corridors.

The first common and national risk assessments have been conducted in 2018 and should be updated every four years. Due to the challenges faced during the energy crisis in 2022, several Member States indicated that they **lacked administrative capacity** to lead the risk groups or conduct the risk assessments on time.

Yet, these risk assessments and the related PAPs and EPs are of utmost importance for the EU's risk preparedness for the next winter and subsequent years.

The Commission had initially not pursued infringement procedures due to the exceptional crisis of 2022. However, due to a lack of progress and the importance of being prepared for the winter 2023-24, the Commission decided to launch 26 EU Pilots in mid-June 2023, to ensure that Member States prepare and notify the risk assessments and the PAPs and EPs.

From the experience of updating the risk assessments and the functioning of the risk groups, as well as via feedback received from GCG members, a number of questions arose beyond the lack of administrative capacity in Member States:

- The current regional approach to the **risk groups seems no longer be fit for purpose**, given the changed geopolitical landscape, the risen prominence of LNG and the reduced role of some of the pipeline supply corridors.
- An **EU-wide approach is suggested** by a number of respondents, possibly with regional sensitivity analyses, with a reinforced role of the Commission's Joint Research Centre.

3.5. Preventive Action Plans and Emergency Plans

The PAPs aim to prevent crises from materialising and are based on the national and common risk assessments, while EPs indicate the procedures, responsibilities, and measures to be taken during a crisis.

Beyond the elements outlined in section 2, the Commission considers that further reflection is needed for the following points that are not currently required by the Gas Security of Supply Regulation:

- The progress made in the **phase out of Russian gas** and a description and projection of **diversification** efforts as part of the description of the national gas system. Alternatively, this could be facilitated via a reinforced information exchange based on Article 14.

- An estimate of the **changing breakdown of gas consumption**.
- Apart from the role of domestic production (including biomethane), further reflection should be given on whether national **hydrogen strategies** should be included. This is of particular importance, if it impacts security of gas supply or the replacement of gas demand in the context of developing a secure European hydrogen market.

While the EPs received since the entry into force of the Regulation can generally be improved, in line with the recommendations in the Commission's opinions, the solidarity test ('dry run' exercise) performed jointly by the Commission, Member States and ENTSOG in December 2022 confirmed the important role of the EPs to ensure a quick and efficient response to an emergency situation. Member States confirmed that it was imperative for the Commission to check the EPs for measures that could have cross-border impacts, such as those restricting cross-border flows or capacities.

As is further detailed in the accompanying Staff Working Document SWD(2023)323, the most important points missing in the PAPs were:

- (1) details on the stakeholder consultation.
- (2) information on the (enforcement of) the supply standard and lack of information on the infrastructure standard.
- (3) inaccurate information on (solidarity) protected customers.
- (4) details on the regional and national gas systems.
- (5) insufficient assessments of the impact of preventive measures on the economy, the internal market, consumers and the environment.

For the EPs on the other hand, the main issue was an incomplete regional chapter including the lack of solidarity arrangements, and a lack of quantification of measures' impact. The Commission considers that Member States should improve the points listed, as already stressed in the opinions issued in 2019.

3.6. Responsibilities in different crisis levels

One of the core provisions of the Gas Security of Supply Regulation is the establishment of different national and EU-wide crisis levels in Article 11, which defines the following three national crisis levels: (1) early warning, (2) alert and (3) emergency.

In addition, the Commission can declare a regional or EU-wide emergency, during which the Commission has a coordinating responsibility. The Demand Reduction Regulation (EU) 2022/1369 also temporarily established an EU alert level.

During the energy crisis of 2022, and in particular during the solidarity 'dry run' exercise performed in December 2022, it was considered that the EU emergency level should be further defined and the criteria for when a regional or when an EU-wide emergency should be declared are unclear. Some Member States provided feedback via the questionnaire submitted to the GCG

that the establishment of an EU emergency plan may be useful, in particular to clarify the roles and responsibilities of different EU bodies and national authorities in an emergency.

Furthermore, the Demand Reduction Regulation (EU) 2022/1369 established the EU alert level as a response to the Russian invasion of Ukraine, which would commit Member States to a mandatory 15% gas demand reduction. As this Regulation will expire at the end of March 2024, it should be reflected on whether the **EU alert is useful for the long-term**. The GCG provided feedback via a questionnaire, indicating openness to keeping this mechanism, albeit dependent on the measures that it would trigger. Some respondents indicated that both the triggering, as well as the subsequent measures, could be related to storage filling. Others mentioned that the measures tied to the EU alert should, like it was in 2022, be a percentile of demand reduction, with the percentage to be tailored to the crisis at hand.

In addition, while Article 12(5)a of the Gas Security of Supply Regulation stipulates that Member States cannot unduly restrict cross-border flows of gas, the procedure that would follow in the midst of a crisis may take up to a week to be concluded. Therefore, Article 25 of the Solidarity Regulation introduced additional **safeguards to ensure cross-border flows**, allowing the Commission to oblige the Member State in question to modify its actions with immediate effect. Most respondents to the GCG questionnaire consider safeguards for cross-border flows useful beyond the expiration of the temporary Regulation (EU) 2022/2576, due to either appreciation of the new provisions of Article 25 or by considering those of Article 12(5) should already be respected at all times.

3.7. Solidarity

Article 13 of the Gas Security of Supply Regulation lays down the requirements of the solidarity mechanism, which is a last resort mechanism in a severe gas emergency where the demand of ‘solidarity protected customers’ is endangered and where the market can no longer supply the necessary volumes.

As required by Article 13(10), Member States must bilaterally agree on solidarity agreements by 1 December 2018, which include the technical, legal and financial arrangements to ensure the functioning of solidarity in practice. These solidarity agreements operationalise solidarity in practice, but their absence does not change the legal obligation. To facilitate the bilateral solidarity agreements, the Commission issued Recommendation (EU) 2018/177 in which it outlined a recommendation on the technical, legal and financial elements to be included in the bilateral solidarity agreements.

At the time of writing, only 8 out of 40 solidarity agreements have been signed, namely between Austria and Germany, Denmark and Germany, Estonia and Latvia, Latvia and Lithuania, Italy and Slovenia, Estonia and Finland, Denmark and Sweden, and Slovenia and Croatia.

As indicated by several Member States, the reasons for the lack of progress are the technical complexity, the lack of expertise allocated by national administrations and political difficulties in reaching an agreement, in particular regarding financial compensation.

Given the insufficient progress, in May 2020, the Commission sent a Letter of Formal Notice to 25 Member States for the failure to comply with the solidarity provisions. The Commission is carrying out infringement package meetings with Member States, where the solidarity infringements are discussed. In addition, the Commission has offered support to facilitate discussions between interested Member States to overcome existing difficulties.

Legislative developments

To ensure that the solidarity arrangements are effective and operational and to cover for the lack of bilateral agreements, the Commission proposed in December 2021 to amend the Gas Security of Supply Regulation via the **Hydrogen and decarbonised gas market package** to introduce common solidarity rules applicable in absence of bilateral agreements.

Since the interinstitutional negotiation on this package was not near its conclusion during the 2022 crisis, on 19 December 2022, EU Ministers adopted the emergency **Solidarity Regulation** setting default solidarity rules applicable in absence of bilateral agreements with a limitation of the maximum compensation to be paid for solidarity. The Solidarity Regulation also temporarily extended the solidarity protection to critical gas volumes for electricity security of supply and temporarily extended the solidarity obligation to Member States with LNG facilities.

The Solidarity Regulation was adopted under Article 122 of the Treaty on the Functioning of the European Union (TFEU), making it a temporary emergency measure that expires at the end of 2023. Should the Hydrogen and decarbonised gas market package not be adopted before that date, the situation in this respect will revert to the one before the crisis, as described above.

Solidarity test (dry run exercise)

To test the solidarity provisions of the Gas Security of Supply Regulation and the Solidarity Regulation, the Commission conducted a joint ‘dry run’ exercise with Member States and ENTSOG in December 2022.

A number of points where follow-up is required were identified:

- Most participants agreed that LNG can provide additional flexibility in a crisis situation. However, LNG solidarity would require market mechanisms and intervention of the Competent Authority, provided that all market-based measures have been exhausted, which should be further clarified.
- It was identified that there is no legal basis for requesting solidarity via pipeline to a neighbouring Member State not directly connected.
- In case a Member State receives two solidarity requests, the procedure was considered unclear.
- Participants expressed the wish that a 24-hour period would be applicable for solidarity provided through pipelines, while 72 hours could still be relevant for solidarity via LNG.

Further details on the solidarity test can be found in SWD(2023)323.

4. Conclusion

Security of gas supply in Europe has improved since last year thanks to the successful implementation of additional measures by the EU and its Member States in all key areas of energy policy. In light of Russia's use of energy as a political and economic weapon, **the EU has acted together, in a spirit of solidarity, to reduce the EU's dependence on Russian fossil fuels** while continuing to **address the climate crisis**, accelerating its efforts to **increase the resilience of the EU's critical infrastructure** and critical entities. The **scaling-up and rolling-out of renewable energy made in Europe** has been greatly accelerated. The EU has reinforced ties with international partners to **diversify energy supplies**, and taken coordinated action to increase preparedness, inter alia with action regarding to gas storage or demand reduction.

Nonetheless, **there are still risks** for security of gas supply to the Union, such as, for example a complete stop of Russian imports, infrastructure incidents, unfavourable weather conditions, increasing gas demand in Europe or tightness for LNG cargoes supply.

In addition, the energy system is undergoing a **transition towards decarbonisation** through an increasing integration of renewable and low carbon gases as well as an increasing electrification. This transformation of the energy system improves the security of gas supply by decreasing the reliance of the EU on fossil fuels and particularly on natural gas. **The security of gas supply architecture of the future will need to be adapted to integrate renewable and low carbon gases, including biomethane and hydrogen, as well as further electrification and sectoral integration of the energy system.**

The new framework should build on, and support, the **Hydrogen and decarbonised gas market package** once adopted. The increasing development of renewable and low carbon gas, including biomethane and hydrogen, as well as the increasing electrification of the energy system are essential elements that will need to be taken into account in any future development of the security of supply legal framework to ensure the security of gas supply and to support the decarbonisation objectives of the EU.

This report points to a number of potential improvements to the EU's security of gas supply architecture. In particular, as stipulated by Article 17 of the Gas Security of Supply Regulation, the report forms the basis for further reflections in view of a potential future proposal by the Commission to amend this Regulation.