A legal perspective on gas solidarity

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ABSTRACT

The EU introduced a new security of gas supply regulation in November 2017, which now replaced the security of gas supply regulation of 2010. This article is providing a critical assessment of the new Regulation (EU) 2017/1938. Many instruments of the predecessor Regulation (EU) 994/2010 will stay in place unchanged and those have been discussed elsewhere. This contribution will, hence, focus on the novelties and changes that Regulation (EU) 2017/1938 is bringing about.

After some introductory remarks on the structure and the aims of Regulation (EU) 2017/1938, the current article will proceed by discussing the two main novelties of Regulation (EU) 2017/1938, which shall implement the main thrust of the new regulation: imposing obligatory solidarity between Member States in a gas crisis. These are first, the grouping of directly connected Member States into so called risk groups and second the new article 13 of Regulation (EU) 2017/1938, which spells out concrete solidarity measures that Member States have to take. In a third step other novelties of Regulation (EU) 2017/1938 will be highlighted and critically reflected upon before the article is wrapped up with some conclusions.

1. Introduction

The key to understanding the change in attitude of the EU towards its security of gas supplies and the resulting legislation are the 2006 and 2009 Russia-Ukraine gas crises. These crises used law and contractual obligations as 'weapons' for what, in reality, was an energy policy issue.¹ The Ukraine and Russia were at odds about the gas price and how to verify the correct amount of deliveries of gas to Ukraine and to Europe via a transit pipeline.² As both countries could not agree on the facts the result, from a European perspective, was a substantial downfall in the amount of gas that reached Europe during the 2006 and particularly the 2009 gas dispute. This downfall forced, inter alia, Italian and German gas-fired power plants to perform emergency shut downs.³

Those events were a pivotal turning point in legal thinking about European gas security of supply. Prior to the crises an almost 'laissez-faire approach' to gas security was taken at EU level. By and large EU Member States were considered as being responsible for safeguarding their own gas supplies. The crises exposed their vulnerabilities, as they largely relied upon nationalistic approaches to gas security. Thus, the recognition that coherent and increasingly stringent measures are needed at EU level to guarantee the supply of gas throughout the Union gained momentum. The EU institutions assessed that new measures were needed and that habits need to be changed.

To avoid further replication of the 2006 and 2009 crises the European Commission, Parliament and Council decided to act and in

2010 put into place Regulation (EU) 994/2010, as an explicit response to this political crises. This pioneering piece of legislation has now been replaced by a new security of gas supply regulation in November 2017. It has to be pointed out that these two regulations are the only legal instruments that are directly imposing strictly binding rules on all EU Member States on gas security of supply. Before these two regulations, gas security of supply was mainly governed by the soft-touch rules of Directive 2004/67/EC and was considered to be largely provided for by the principles governing the internal European energy market. The particularities are discussed in more depth below in this article.

The new Regulation (EU) 2017/1938 is, thus, the successor to Regulation (EU) 994/2010 and is supposed to deal with its perceived shortcomings. Many instruments of the predecessor Regulation (EU) 994/2010 will stay in place unchanged and those have been discussed elsewhere. This contribution, hence, focusses on the novelities and changes that Regulation (EU) 2017/1938 is bringing about.

As this is a legal paper some words on legal methodology might be of interest to the reader. A genuine understanding of how regulation addresses the issue of gas supply security in Europe may not be achieved by superficial reading and comparison of paragraphs. The law texts rather need to be interpreted in the light of their respective contexts in order to distil the genuine meaning of a norm. Two hundred years ago Friedrich Carl von Savigny developed a rigorous methodology of legal interpretation, which is based on four ‘canons’, or methods. These methods have been widely accepted in the comparative law literature and are still in use today all over the world. The four methods consist of grammatical interpretation (the interpretation of the wording of the law) and systematic interpretation (the logical interaction of different pieces of the law among themselves and with the overall legal system). They also comprise historical interpretation (considering the legal situation and pertaining circumstances at the point in time when the law was enacted) and teleological interpretation (interpretation in view of the underlying aims and rationale of the law). The current analysis is the result of an application of this methodology to the text of the new Gas Security of Supply Regulation (EU) 2017/1938. Its predecessor has been analysed with the help of a comparable methodology by Silke Goldberg and the present article could, hence, be viewed as a logical continuation of her sublime analysis of the old Regulation (EU) 994/2010.

After providing a background on the development of Regulation (EU) 2017/1938, the article is starting off with some remarks on its structure and aims. The reader then learns more about the main novelty that Regulation (EU) 2017/1938 is bringing about in comparison to its predecessor: the imposition of obligatory solidarity between Member States in a gas crisis. This shall be achieved by two means, which are discussed in depth: first, directly connected Member States are being clustered into so called risk groups and second, the new article 13 of Regulation (EU) 2017/1938, spelling out concrete solidarity measures that Member States have to take in case of an emergency. The article concludes with some observations on policy implications of the new means, situating the new regulation on gas supply solidarity within the concepts of energy justice and ‘just’ transitions.

2. Background

The EU deemed it necessary to introduce a new security of gas supply regulation after the Commission investigated the implementation of Regulation (EU) 994/2010 in October 2014. Although the EU insists that the old Regulation (EU) 994/2010 had a significant positive impact on the security of gas supply in the Union, the October 2014 (footnote continued)

Savigny’s means of legal interpretation must be adhered to by all users of the law and that a conclusion from interpreting a norm which was not reached by one of these methods is invalid, see: BVerfGE 93, 37 (81); 113, 88 (104).


report\(^1\) identified areas in which improvements could further bolster the security of gas supplies to the Union.

At the same time the European Network of Transmission Network Operators for Gas (ENTSO-G)\(^9\) conducted a gas ‘stress test’ on the functioning of the gas infrastructure in Europe and the results were published in the same document on the same day in October 2014.\(^20\) The results highlighted that purely national approaches are not very effective in the event of severe disruption.\(^21\) In particular a reiteration of the Russian/Ukrainian gas crises of 2006 and 2009 or a technical failure of equipment that causes gas supply via Ukraine to stop would have severe impacts on East and South-East European Member States.\(^22\)

But ENTSO-G did not stop at making this and other assessments. They also demonstrated how a more cooperative approach among Member States could significantly reduce the impact of severe gas disruptions in the most vulnerable Member States, according to their geographic location and gas sourcing options.\(^23\) The Commission is explicitly referring to this when justifying the introduction of Regulation (EU) 2017/1938 in its preamble.\(^24\)

The Commission further underpins its decision to introduce a new security of gas supply regulation by reference to the Energy Union Strategy of 25 February 2015, which highlighted that an Energy Union, initially set up to give the EU one common voice towards Russia, depends on solidarity and trust as necessary features of energy security.\(^25\)

Indeed, this 2015 document explicitly states that

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\begin{align*}
\text{‘Solidarity among Member States, in particular in times of supply crisis, has to be strengthened. These issues and the experience gained in the implementation of the Regulation will be taken into account when proposing a revision of the Security of Gas Supply Regulation.’}\end{align*}
\]

This is what the European Commission subsequently did by launching a first draft proposal in February 2016,\(^27\) which focused very much on solidarity and which went on to eventually become Regulation (EU) 2017/1938, roughly one and a half years later.

3. Structure and aims of Regulation 2017/1938

The structure of Regulation (EU) 2017/1938 follows from the fact that the main instruments of its predecessor Regulation (EU) 994/2010 have been preserved and transferred to the new regulation.\(^28\) However, the structure of the new document has been streamlined and now flows more logically compared to its predecessor.

Article 1 Regulation (EU) 2017/1938 is providing the overall aims of the Regulation, which have not changed much when compared to the predecessor regulation. Security of gas supply, in the view of the European Union, is primarily linked to the proper functioning of the internal gas market.\(^29\) However, the Regulation allows for exceptional measures if the market can no longer deliver the amount of gas that is required. The regulation shall provide a clear definition and attribution of responsibilities and provide for coordination of planning and responses to emergencies at national, regional and Union level.\(^30\)

The new article 3 is key to understanding Regulation (EU) 2017/1938, as it establishes responsibilities for the security of gas supply. In general the three-level approach of Regulation (EU) 994/2010 is being continued, which allocates responsibility for the security of gas supplies first, to the relevant natural gas undertakings (and electricity undertakings where appropriate), second, to the Member States and third, to the Union.\(^31\) An interesting detail here is the inclusion of electricity undertakings in the chain of responsible actors, as they were not included in the old Regulation (EU) 994/2010.\(^32\)

This is part of a bigger mission of the Commission to include electricity undertakings and industry more into the scope of the new security of gas supplies Regulation (EU) 2017/1938.\(^33\) With these measures the Commission is trying to pre-empt a future where more gas-fired power plants are built/running in Europe so that large amounts of gas would be needed for electricity production, which in turn would need to be secured on the markets and these additional amounts of gas could worsen a gas crisis.

Alongside the three main actors, the three different levels of crisis have also been maintained (early warning, alert and emergency level) and are now established as a separate article, new article 11 regulation (EU) 2017/1938. However, an interesting change occurred in the question who is eligible for declaring a crisis level. Under the old article

\(^{footnote continued}\) followed by article 4 on the Gas Coordination Group (which was discussed only at the back of the old regulation in article 12). Furthermore, the Infrastructure and the Gas supply standard have been brought more to the front of the regulation and directly follow each other (was articles 6 and 8 and now in the new regulation articles 5 and 6), the risk assessments, which shall function as a central tool for mitigating security of gas supply risks have been moved to the front of the regulation (was article 9 now article 7) and finally, emergency plans and the declaration of a crisis level, two distinct things that used to be part of the same article have now been split over two articles (was article 10 now articles10 and 11).

\(^{29}\) Article 1 Regulation (EU) 2017/1938.

\(^{30}\) Article 1 Regulation (EU) 2017/1938.

\(^{31}\) Compare article 3 (1) and (4) Regulation (EU) 994/2010 to article 3 (1) (4) of Regulation (EU) 2017/1938.

\(^{32}\) Compare article 3 (1) and (4) Regulation (EU) 994/2010 to article 3 (1) (4) of Regulation (EU) 2017/1938.

\(^{33}\) There is a number of examples for the inclusion of electricity into the gas security of supply Regulation (EU) 2017/1938. Article 5 (8) Regulation (EU) 2017/1938 for instance prescribes that the integration between electricity and gas systems shall be taken into consideration when searching for bottlenecks and assessing the impacts of the failure of the single largest gas infrastructure. A further example is the fact that electricity producers have to be consulted to draw up preventive gas action and gas emergency plans, see article 8 (2) Regulation (EU) 2017/1938. Moreover, the preventive gas action plans under article 9 Regulation (EU) 2017/1938 must include a definition of protected customer and, again, electricity undertakings are now included in the list of entities on which an obligation can be imposed in case of a crisis, see article 9 (1) (b) Regulation (EU) 2017/1938. The provision on emergency plans include similar alterations: electricity (TSO for electricity where relevant) has been included in the preparation phase of the plan, an integrated view of the operation of energy systems across electricity and gas has to be adopted and electricity undertakings can have reporting obligations, see article 10 (1) (b) (l) (k) Regulation (EU) 2017/1938.
4. Risk groups and the solidarity mechanism – the two main new features of Regulation (EU) 2017/1938

At the heart of the new Regulation (EU) 2017/1938 lie two main features. On the one hand the Regulation is introducing the concept of risk groups for gas supply threats, on the other hand a new solidarity mechanism for gas crises is being introduced. While the risk groups are discussed immediately below in Section 4.1, the new solidarity mechanism is assessed afterwards in Section 4.2.

4.1. Risk groups

4.1.1. The creation of risk groups

The first major innovation of Regulation (EU) 2017/1938 is the creation of risk groups for gas supply. The risk groups have been established on the basis of gas supply routes, supply country risks and the cohesion of capabilities to exchange gas.38 The main criterion for grouping countries together was, hence, whether or not they have a common supplier of gas and a common gas supply route.39 As a consequence, only directly interconnected Member States have been clustered into gas supply risk groups.40 These risk groups shall serve as a basis for enhanced regional cooperation and agreement on effective cross-border measures.41

Annex I of Regulation (EU) 2017/1938 establishes 13 risk groups, clustered into 4 categories (Eastern Gas, North Sea Gas, North African Gas and South-East Gas). Countries can be part of several risk groups across different categories.42 To give an example: the Netherlands are included on the one hand in the category ‘Eastern Gas’ in the risk groups concerning deliveries via:

- Belarus and
- The Baltic Sea
- but at the same time they are also included in the category ‘North Sea gas’ concerning
- Norway
- Low-calorific gas
- Denmark

This reflects the actual reality of gas supplies to and in Europe, which will often come from very different sources. For North-West Europe an interesting particularity features in Annex I 2 (b) Regulation (EU) 2017/1938: a low-calorific gas risk group has been created, consisting of Belgium, Germany, France and the Netherlands. Given the recent decision of the Dutch government to completely shut down Europe’s only big source of low-calorific gas, the Groningen gas field, by 2030 this seems sensible.43 If deliveries of low calorific gas from the Groningen gas field to other countries will end, it is due diligence to create a particular risk group around this energy carrier, although it is not concerned with gas imports into the Union.

The initial starting point for the idea of having obligatory gas supply risk groups was ENTSOG’s 2014 gas ‘stress test’,44 that has been discussed earlier. In the resulting 2014 report on the implementation of Regulation (EU) 994/2010 the Commission painted a gloomy picture of the functioning of regional cooperation mechanisms in a gas crisis, stating that ‘the main weakness so far, however, has been that Risk Assessments and Plans have remained nationally focussed only and that the coordination between Member States has overall been poor’.45

This part of the document ended with a bleak assessment of the Commission’s current powers: ‘The Commission’s tools to co-ordinate actions are under the existing Regulation limited and the absence of Risk Assessments and Plans co-ordinated between Member States at regional level further complicate its overall co-ordination task at EU level significantly.’46

To remedy this shortcoming the Commission initially proposed the creation of nine risk groups in the first draft of the new security of gas supplies regulation, dating February 2016.47 However, the Member States started opposing this idea immediately, with five Member States (Austria, Belgium, France, Germany and Italy) being particularly critical.48 They argued that the risk groups and the underlying regional approach to gas security of supply were not suitable to efficiently address gas emergencies, due to the great variety of importance and roles that gas plays in the different energy mixes of Member States.49

A good impression of the tensions is provided by the debate of the proposal in the two chambers of the Italian parliament. Concerning the composition of the risk groups, which was included in the draft 12 Regulation 2017/1938 proposes the creation on basis of major transnational risks to security of gas supply, that is to say clustering of Member States on basis of main gas supply sources and along main gas supply routes. The Italian politicians, however, highlighted how the region in which Italy was initially included did not respect these criteria in view of existing interconnections and the possibility to pool resources and balance risks for security of gas supply across the region.50 Among the four other states included

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34 Article 3 (2) Regulation (EU) 2017/1938.
36 Article 3 (1) and (2) Regulation (EU) 2017/1938.
43 For the decision of the government see Kamerstukken II 2017/2018, 33529, nr. 457, p. 1 and 7; for the history of the Groningen gas field see Martha M Roggenkamp ‘Reducing gas production from the Groningen field: the need to balance safe production with supply security’ in Martha M Roggenkamp and Catherine Banet (eds.) ‘European Energy Law Report Volume XII’ (Intersentia, Cambridge 2017) 301–316.
46 SWD Gas Security 2014 at 17.
47 First Draft and explanatory memorandum.
50 Senato della Repubblica Italiana ‘Legislatura 17ª 14ª Commissione permanente, Resoconto sommario n. 186 del 27/04/2016, Proposta di Regolamento del Parlamento europeo e del Consiglio concernente misure volte a garantire la sicurezza
in the then proposed South – East Region, one, Slovenia, was exempted from the infrastructure standard,\textsuperscript{51} which means that they had to provide less assurance of robustness of their measures taken to withstand a severe gas crisis. The Italians doubted that, in case of gas disruptions, there would be equal burden sharing, as one Member State that is directly connected might be exempted from certain duties.\textsuperscript{52} As a result they consider their risk-group as ill – suited to address security of gas supply risks, arguing that not all countries included in there have to show the robustness and efficacy of their systems.\textsuperscript{53}

Furthermore, there was a North-West risk group contemplated, made up of Ireland and the UK.\textsuperscript{54} Following the Brexit referendum of 23 June 2016 and the huge difficulties in determining the future border between the UK and the EU on the Irish isle, this risk group became obsolete.\textsuperscript{55} Due to these and other debates, the Commission amended the composition of the risk groups and their format in the final version of Regulation (EU) 2017/1938.

However, this is not a decision that is set in stone. Article 3 (8) Regulation (EU) 2017/1938 entitles the Commission to update the composition of the risk groups to reflect the evolution of major transnational risks to the security of gas supplies for Member States.\textsuperscript{56} In terms of decision-making on the composition of the risk groups the key body is the Gas Coordination Group (GGC), which is made up of the Competent Authorities of Member States, ACER, ENTSO-G, the industry, customers and representatives of the Energy Community. A novelty concerning GGC is the so called ‘restricted setting’ mode, which did not feature in Regulation (EU) 994/2010. According to article 4 (4) Regulation (EU) 2017/1938 the GGC can be convened, upon request by one or more Member States/Competent Authorities, in a setting that only features the Member States and not the other parties. The GGC has to be convened in the ‘restricted setting’ if the European Commission wishes to update the composition of the risk groups.\textsuperscript{57}

Possible amendments to the composition of the risk groups shall explicitly take into account the results of a Union-wide ‘stress test’ that had to be completed on the same day that the new Regulation went into force (1 November 2017)\textsuperscript{58} and that will be discussed below in the next section. The fact that the Commission finally established risk groups, but simultaneously allows itself to alter their composition indicates that the current set-up of the risk groups is unlikely to be the last word.

\textbf{4.1.2. Tasks of risk groups}

The main task of risk groups is the implementation of solidarity measures under the new article 13 Regulation (EU) 2017/1938, which will be discussed in the next section. Besides this primary obligation, however, there is also the task for Competent Authorities of each risk group to create a ‘common risk assessment’ at risk group level, besides their (remaining) obligation to make national risk assessments, which was already included in Regulation (EU) 994/2010.\textsuperscript{59} In order to make that happen article 7 on Risk Assessment has been considerably refurbished, compared to its old form in Regulation (EU) 994/2010. They have to be fully consistent with assumptions and results of the common risk assessment.\textsuperscript{60}

Article 7 (4) (a) Regulation (EU) 2017/1938 further obliges the Competent Authorities to detail the N-1 formula\textsuperscript{61} at national and regional level, by taking into account the interrelation of risks of different risk groups.\textsuperscript{62} Annexes IV and V Regulation (EU) 2017/1938 entail detailed templates for the common and the national risk assessments, which the Commission can alter in the wake of the ‘stress tests’ and in coordination with the GGC.\textsuperscript{63} By 1 October 2018 the Member States have to notify their first common risk assessments to the Commission, alongside the national risk assessments, and they are both subject to a 4-year update cycle (was 2 years in Regulation (EU) 994/2010).\textsuperscript{64}

\textbf{4.1.3. Membership in several risk groups}

If a country is a member of several risk groups, plans must include several regional chapters, which shall be developed jointly in the risk group and shall also implement the results of the 2017 ‘stress test’. Under the old article 4 (3) Regulation (EU) 994/2010, such regional cooperation was encouraged, but not yet obligatory.

The Commission has a ‘facilitating’ role in putting these regional chapters together.\textsuperscript{65} If the Competent Authorities (CA) cannot agree on a coordination mechanism in the regional plans the Commission proposes one for the risk group, which the Competent Authorities, then have to take into account for a regional plan.\textsuperscript{66}

According to article 8 (5) Regulation (EU) 2017/1938, there are templates for these plans in Annexes VI and VII. The Competent Authorities of neighbouring countries shall consult with each other on their plans to ensure consistency.\textsuperscript{67} The plans must then be notified to the Commission and made public at latest by 1 March 2019.\textsuperscript{68} The Commission, then assesses the plans and can issue an opinion to the Competent Authorities.\textsuperscript{69} It can issue an opinion if it thinks that the plans do not comply with the obligation to not distort markets or they hinder the effective functioning of the internal market.\textsuperscript{70}

In case disagreement between Competent Authorities and the Commission on one of these plans cannot be resolved, the Competent Authorities of the Member States concerned can diverge from the Commission’s detailed reasons, but they need to make public the justification underlying their position after receipt of the detailed reasons of the Commission.\textsuperscript{71}

The final word on the outline of preventive action plans and emergency plans\textsuperscript{72} in the regional chapters is, hence, lying with the


\footnotesize{(footnote continued)\vspace{0.5cm}}

\textsuperscript{51} Article 5 (9) Regulation (EU) 2017/1938.

\textsuperscript{52} Italian Senate.

\textsuperscript{53} Italian Senate.


\textsuperscript{55} BBC.co.uk ‘EU worried’ by UK’s Irish border proposals’ available at: http://www.bbc.co.uk/news/uk-politics-41183041 [accessed 11/December/2017]. For more information see chapter 1 of Silke Goldberg in this book.

\textsuperscript{56} Article 3 (6) Regulation (EU) 2017/1938.

\textsuperscript{57} Article 3 (6) Regulation (EU) 2017/1938.

\textsuperscript{58} Article 6 (2) Regulation (EU) 2017/1938.

\textsuperscript{59} Article 7 (1) and (2) Regulation (EU) 2017/1938.

\textsuperscript{60} Article 7 (1) and (2) Regulation (EU) 2017/1938.

\textsuperscript{61} More on the N1 formula can be found at Goldberg 87/88. It remains unchanged, but attached to its definition is now the following statement in Annex II of Regulation (EU) 2017/1938: “The parameters used for the calculation shall be clearly described and justified. For the calculation of the EPm, a detailed list of the entry points and their individual capacity shall be provided.” This can be read as a warning to Member States to pick realistic data for input into the N-1 formula.

\textsuperscript{62} Article 7 (4) (d) Regulation (EU) 2017/1938.

\textsuperscript{63} Article 7 (5) regulation (EU) 2017/1938.

\textsuperscript{64} Article 7 (7) Regulation (EU) 2017/1938.

\textsuperscript{65} Article 8 (3) (4) Regulation (EU) 2017/1938.

\textsuperscript{66} Article 8 (3) (4) Regulation (EU) 2017/1938.

\textsuperscript{67} Article 8 (6) Regulation (EU) 2017/1938.

\textsuperscript{68} Article 8 (7) Regulation (EU) 2017/1938.

\textsuperscript{69} Article 8 (8) Regulation (EU) 2017/1938.

\textsuperscript{70} Article 8 (9) Regulation (EU) 2017/1938.

\textsuperscript{71} Article 8 (9) Regulation (EU) 2017/1938.

\textsuperscript{72} Articles 8–10 are dealing with the establishment of preventive action plans and emergency plans, which are now discussed in three consecutive articles. However, the concepts as such remain the same as in Regulation (EU) 994/2010. Article 8 (1) Regulation (EU) 2017/1938 now features a new clarification
Competent Authorities of the Member States and not with the Commission. This might be viewed as somewhat contradictory to the overall purpose of Regulation (EU) 2017/1938 to increase solidarity and the oversight of the Commission on coordination and planning in a crisis. Against this, however, can be argued that it does makes sense to give Member States a final say on preventive action plans and emergency plans, as they have to be designed, and ultimately implemented by the Member States. Leaving the ‘last word’ to the Competent Authorities of Member States is justified by the principle of subsidiarity of article 5 (3) TFEU, which prescribes that the EU shall act in areas of shared competence only if and insofar as objectives of the regulatory action cannot be sufficiently achieved by Member States. The Member States will probably be very aware of the particularities of their countries and their risk groups, given the high importance and sensitivity that the topic of gas supplies has for every EU country and might have more knowledge than the Commission.

### 4.2. Solidarity measures of the new article 13

The second big novelty of Regulation (EU) 2017/1938 is the solidarity clause of article 13. Member States are obliged to take certain pre-defined solidarity measures in a gas crisis. In order to fully understand those measures, their implications and their rationale, it is necessary to first take a step back and reflect upon solidarity and its emergence in energy law, before assessing the measures of article 13 Regulation (EU) 2017/1938 in detail.

#### 4.2.1. The history of solidarity in European gas security of supply legislation

Solidarity is not a new concept as such in the history of EU energy security laws. The ‘spirit of solidarity’, in fact, has been called upon many times, examples include article 194 TFEU, preamble 13 and article 9 (4) of Directive 2004/67. Preambles 5, 22, 25, 36 and articles 1 and 8 (2) of Regulation (EU) 994/2010 as well as the new article 13 Regulation (EU) 2017/1938. Particularly article 194 TFEU, which functions as the primary law basis (the competence) for the introduction of Regulation (EU) 2017/1938, notes:

> ‘In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to: (...) (b) ensure security of energy supply in the Union; (...)’.

However, this ‘spirit of solidarity’ is more of a programmatic statement that does not give a concrete definition. Outside of the energy context a concrete solidarity clause features in article 222 TFEU. It provides Member States and EU institutions with the possibility to act jointly in the prevention and the management of terrorism, national and man made disasters. The predecessor of article 222 TFEU has been implemented in secondary legislation by the Critical Infrastructure Directive 2008/114/EC, which applies to natural or man made disasters. Here an analogy to gas supply crises could be drawn, since gas disruptions can be the result of natural or man made disasters. However, this only holds for a tiny percentage of cases.

#### 4.2.2. Solidarity in Regulation (EU) 994/2010 and lack of reverse flow capacity

Silke Goldberg, assessing Regulation (EU) 994/2010 back in 2011 noted that ‘the principle of solidarity underpins many of the obligations in the EU Regulation’.

However, she identified ‘fundamental issues’ with the approach of the EU to solidarity, both at the concrete and the conceptual level. At the concrete level, the need to install bi-directional interconnection capacity (or reverse flow) was the only concrete solidarity measure featuring in the old Regulation (EU) 994/2010. Despite the positive assessment of Silke Goldberg back in 2011, it may prove to be this provision that gives the Regulation its bite’, developments went slowly. The share of bi – directional interconnections has increased from 24 per cent in 2009–40 per cent of total interconnections in 2014. But the large number of exemptions granted under article 7 Regulation (EU) 994/2010 from the obligation to install reverse flow capacity leads to a situation where over 50 per cent of interconnectors still cannot have their gas flows reversed.

This poses a real threat that was recently highlighted, once again, in a new gas ‘stress test’ that ENTSO-G had to conduct by November 2017. In the event of a new major gas disruption South-Eastern Member States, namely Romania and Bulgaria, would need to source gas from Western Europe. ENTSO-G found that in case of a 2 month disruption of all gas imports to the EU via Ukraine, Member States in South-Eastern Europe would need to curtail their gas demand significantly.

In case of a crisis, gas from Western markets (where diversification of gas supplies is traditionally more developed and LNG imports are starting to kick in) could not be transported to the Eastern European market (where Russia is the big supplier), due to the inability of gas interconnectors to have their gas flows reversed from West to East. In Romania demand would have to be curtailed by 9 per cent, in Greece by around 2 per cent, but in Bulgaria 71 per cent of gas demand would have to be curtailed. These numbers look even worse when modelled for a disruption via the same route during a peak day of exceptionally high gas demand, arising with a statistical probability of

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**Note:**

3. Goldberg 83.
4. Goldberg 84.
5. Goldberg 87.
11. 2017 Stress Test page 25. However, it has to be acknowledged that first signs that the issue is being tackled exist. For instance the following project: Net4gas “Reverse Flow in Direction West-East” available at: https://www.net4gas.cz/en/projects/eepr-projects/reverse-flow-direction-west-east/ [accessed 15/December/2017].
12. 2017 Stress Test page 25. However, it has to be acknowledged that first signs that the issue is being tackled exist. For instance the following project: Net4gas “Reverse Flow in Direction West-East” available at: https://www.net4gas.cz/en/projects/eepr-projects/reverse-flow-direction-west-east/ [accessed 15/December/2017].
once in 20 years.\textsuperscript{92} Numbers for Bulgaria are looking similarly bleak in case of disruption of the largest infrastructure to the Balkan region.\textsuperscript{93} The exemptions from the bi – directional capacity obligation prove, thus, to be problematic for neuralgic points, although they are not necessarily restricted to the East-West gas flow, as a number of other shortcomings concerning Finland, Denmark and Sweden highlight.\textsuperscript{94}

In order to limit the amount of exemptions a procedural novelty is included in article 5 (4) Regulation (EU) 2017/1938. To obtain an ex-

cept from the obligation to have reverse flow capacity fitted to a gas interconnector between Member States, a particular template has to be followed, which is included in Annex III to the Regulation. The idea is to give Member States clearer guidance on the interpretation of conditions that have to be met to grant an exemption. The overall aim of the Commission is to limit the amount of exemptions granted and to narrow the leeway of discretion for Member States.\textsuperscript{95}

However, the question why there is such a huge number of ex-

ceptions from the obligation to (retro-) interconnectors with reverse flow capacity goes deeper and touches upon the more conceptual cri-
ticism of Goldberg and others.\textsuperscript{96} Solidarity can encourage free-riding.\textsuperscript{97} A country might be inclined to handle its obligatory measures to pre-

vent a shortage in gas supplies more lenient if it knows that there are 27 other countries that `might help out´ in case of a real crisis.

4.2.3. The new solidarity mechanism of article 13 Regulation (EU) 2017/1938

The new article 13 Regulation (EU) 2017/1938 is trying to counter this issue. The main stipulation on solidarity in the new security of gas supply regulation in article 13 (1) reads:

\textit{If a Member State has requested the application of the solidarity measure pursuant to this Article, a Member State which is directly connected to the requesting Member State or, where the Member State so provides, its competent authority or transmission system operator or distribution system operator shall as far as possible without creating unsafe situa-
tions, take the necessary measures to ensure that the gas supply to cus-
tomers other than solidarity protected customers in its territory is reduced or does not continue to the extent necessary and for as long as the gas supply to solidarity protected customers in the requesting Member State is not satisfied. The requesting Member State shall ensure that the relevant volume of gas is effectively delivered to solidarity protected customers in its territory.}\textsuperscript{98}

According to this article 13 (1) Regulation (EU) 2017/1938, the directly connected Member State has, thus, to reduce gas flows to customers, other than `solidarity protected customers´, in case of a crisis and instead needs to pump the volumes of gas that have been set free to a Member State requesting solidarity. This must be continued for as long as supply to `solidarity protected customers´ in the requesting Member States cannot be satisfied. This new mechanisms, hence, re-

quires Member States in such situations to directly interfere with the

markets and the contractual obligations of market players, the con-

sequences of which will be discussed further below.

4.2.4. The new category of `solidarity protected customers´

But what is a `solidarity protected customer´? And how is it related to the concept of a `protected customer´? Article 2 Regulation (EU) 2017/1938 is providing the Regulation’s definitions, many of which already featured in Regulation (EU) 994/2010 and are linked to the Gas Directive (Directive 2009/73/EC).\textsuperscript{99} A `solidarity protected customer´, according to article 2 (6) Regulation (EU) 2017/1938, is `{a household customer who is connected to a gas distribution network, and, in addition, may include one or both of the following:}

(a) a district heating installation if it is a protected customer in the relevant Member State and only in so far as it delivers heating to households or essential social services other than educational and public administration services;
(b) an essential social service if it is a protected customer in the relevant Member State, other than educational and public administration services;\textsuperscript{100}

The definition of `solidarity protected customer´ is thus more narrow than the definition of `protected customer´, which features in article 2 (5) Regulation (EU) 2017/1938 and has been maintained from Regulation (EU) 994/2010.\textsuperscript{101} The difference is that the category of `protected customer´ can include `small/medium size enterprises´, whereas such enterprises cannot feature as `solidarity protected cus-
tomer´.\textsuperscript{102}

Moreover, the `solidarity protected customer´- definition places further restrictions and qualifications on the extent to which district heating installations and essential social services can be qualified by Member States as `solidarity protected customers´.\textsuperscript{103}

The Member State providing solidarity can also resort to further non-market based measures to achieve the aim of providing soli-

darity.\textsuperscript{104} The requesting Member State is obliged to inform the pro-

viding Member State immediately when it is able to resume supply to its solidarity protected customers.\textsuperscript{105}

However, according to article 13 (7) Regulation (EU) 2017/1938, the obligation to provide solidarity in gas is subject to the safe and reliable operation of the gas system of the Member State that is asked to provide solidarity and the limit of maximum interconnection export capacity of the relevant Member State infrastructure towards the re-

questing Member State.

This provision might end up being used as a first `exit-gateway`, a way for Member States that are unwilling to provide solidarity to cir-

cumvent their obligations. Member States have very different provi-

sions on the composition of natural gas streams and the possibility to admix other gases to the streams.\textsuperscript{106} Member States that are unwilling

\textsuperscript{92} 2017 Stress Test page 28.
\textsuperscript{93} 2017 Stress Test pages 37/38.
\textsuperscript{94} The report highlights two further, more `traditional’, gas infrastructure issues in Europe: 1) Finland - in case of a disruption of all imports to the Baltic states and Finland a 100 per cent disruption in Finland would occur, due to infrastructure limitations (no connection to another country), see 2017 Stress Test page 35. 2) Denmark and Sweden - in case of the disruption of the largest infrastructure to Denmark (technical disruption of Eullund) both Member States might have to implement up to 40 per cent demand curtailment, again due to limited infrastructure availabilities, see 2017 Stress Test page 48.
\textsuperscript{95} SWG Gas Security 2014 pages 11/12.
\textsuperscript{98} Article 13 (1) Regulation (EU) 2017/1938.
\textsuperscript{100} Article 2 (6) Regulation (EU) 2017/1938.
\textsuperscript{101} Now in article 2 (5) Regulation (EU) 2017/1938.
\textsuperscript{102} Compare article 2 (5) and (6) Regulation (EU) 2017/1938.
\textsuperscript{103} According to article 2 (6) (a) Regulation (EU) 2017/1938 a district heating installation if it is a protected customer in the relevant Member State and only in so far as it delivers heating to households or essential social services other than educational and public administration services. According to article 2 (6) (b) ´an essential social service if it is a protected customer in the relevant Member State, other than educational and public administration services.\textsuperscript{104} Article 13 (5) Regulation (EU) 2017/1938.
\textsuperscript{105} Article 13 (6) Regulation (EU) 2017/1938.
\textsuperscript{106} See Ruven Fleming and Joshua Fershee ‘ Chapter 8 The `Hydrogen Economy´ in the US and the EU – Regulating Innovation to Combat Climate Change´ in Donald Zillmann, Lee Godden, LeRoy Paddock, Martha M
to deliver gas to other Member States in a gas crisis might want to use these different configurations of the gas stream and other technical as reasons for abstaining from the solidarity mechanism, based on the argument that there are limitations to the safe and reliable operation of the gas system.

4.2.5. Compensation mechanism for market interference under article 13

A crucial factor in limiting such tendencies and encouraging Member States to interfere with their energy markets and contractual arrangements of market players is the money that has to be paid as compensation for the emergency solidarity gas deliveries. Article 13 (8) Regulation (EU) 2017/1938 is foreseeing a strict and comprehensive compensation mechanism. The Member State requesting solidarity shall promptly pay fair compensation to the Member State providing solidarity. Such fair compensation shall cover at least the following items:

(a) gas delivered into the territory of the requesting Member State;
(b) all other relevant and reasonable costs incurred when providing solidarity, including, where appropriate, costs of such measures that may have been established in advance;
(c) reimbursement for any compensation resulting from judicial proceedings, arbitration proceedings or similar proceedings and settlements and related costs of such proceedings involving the Member State providing solidarity vis-a-vis entities involved in the provision of such solidarity.

This shall also include all reasonable costs that the Member State, which is providing solidarity incurs from an obligation to pay compensation by virtue of fundamental rights guaranteed by Union law and by virtue of the applicable international obligations when implementing this article. This is referring to the right of all gas customers to be supplied and the possibility that this might have to be infringed in a crisis on the basis of Regulation (EU) 2017/1938.

Also further reasonable costs incurred from payment of compensation pursuant to national compensation rules have to be reimbursed. This situation might occur when a Member State orders its gas supply companies in a crisis to restrict supplies to ‘solidarity protected customers’. This would mean, as mentioned above, that for example small and medium sized enterprises could suffer supply interruptions. However, they have a contract with their gas supplier about gas deliveries, which the gas supply companies are then violating. This can lead to compensation claims, which the companies can then pass on to the Member State.

Finally, the requesting Member State also has to compensate all costs that the Union incurs by virtue of any liability in respect of measures that Member States are required to take. The request of solidarity, thus, is coming with a heavy price-tag attached to it, which can make the strategy to rely on other Member States to ‘help out’ in a crisis a costly one.

By 1 December 2018 the Member States shall adopt the necessary measures, in particular decide on technical, legal and financial arrangements, to be able to pay the described compensation. The technical, legal and financial arrangements shall be agreed among the Member States which are directly connected or connected via a non-Member States and shall be described in their respective emergency plans. Such arrangements may cover the operational safety of networks, gas prices to be applied and/or the methodology for their setting, the use of interconnections, gas volumes or the methodology for their setting, categories of costs that will have to be covered by a fair and prompt compensation and an indication of the method how the fair compensation could be calculated.

Any compensation mechanism shall provide incentives to participate in market-based solutions such as auctions and demand response mechanisms. It shall not create perverse incentives for market players to postpone their action until non-market-based measures are applied. All compensation mechanisms or at least their summary shall be included in the emergency plans.

There is a second ‘exit-gateway’ for Member States, this time for those that are unwilling to negotiate the described comprehensive arrangements. Article 13 (11) Regulation (EU) 2017/1938 states that a Member State shall be exempted from the obligation to conclude technical, legal and financial arrangements with directly connected Member States (or via non-Member States), as long as it can cover the gas consumption for its ‘solidarity protected customers’ from its own production. Such an exemption, however, shall not affect the obligation of the relevant Member State to provide solidarity to other Member States.

A similar exemption has been drawn up specifically for Denmark and Sweden (rather unsystematically placed in article 20 (3) Regulation (EU) 2017/1938). Denmark and Sweden shall be exempted from the obligation to conclude technical, legal and financial arrangements for the purpose of Sweden providing solidarity to Denmark. This, however, shall not affect the obligation of Denmark to provide solidarity and to conclude the necessary technical, legal and financial arrangements to that effect.

By 1 December 2017 the Commission was obliged to provide guidance for the key elements of the technical, legal and financial arrangements. However, by the time of writing this guidance document was not yet issued.

4.2.6. Resolutions for ambiguities in article 13

There are at least two questions that might be raised in relation to the mechanisms proposed by the new article 13:

1) What if more than one Member State is directly connected to the requesting Member State - who has to provide the gas?
2) What if Member States that are directly connected cannot agree on the technical, legal and financial arrangements of compensation?

Question one is answered by article 13 (4) Regulation (EU) 2017/1938: ‘If there is more than one Member State that could provide solidarity to a requesting Member State, the requesting Member State shall, after consulting all Member States required to provide solidarity, seek the most advantageous offer on the basis of cost, speed of delivery, reliability and diversification of supplies of gas.’ The regulation, however, is not providing a precise mechanism on how these individual components will have to be interpreted, which means that the interpretation of terms like reliability and diversification of supplies is left to the discretion of Member States. This could constitute a possible third ‘exit-gateway’, with the help of which offers that a Member State might not like could be declined.

The second question is answered in article 13 (13) and (14)
Regulation (EU) 2017/1938. If Member States do not agree on a compensation mechanism by 1 October 2018, the Commission will propose one, based on its (still to be issued) guidance document. Member States shall then finalize their arrangements by 1 December 2018, taking ‘utmost account’ of the Commission’s proposal. This curious formulation is an indicator that the Commission will not have the final say on the matter. Indeed, article 13 (14) Regulation (EU) 2017/1938 prescribes that if Member States fail to agree or finalize their technical, legal and financial arrangements, they only have to agree on the necessary ad hoc measures in case of a crisis.

Finally, Regulation (EU) 2017/1938 stresses at several points that solidarity shall be a measure of last resort, which applies only in an emergency and is subject to several restrictive conditions. A Member State that is declaring an emergency should first take all measures it has available to resolve the situation before calling upon the solidarity of other Member States. This emphasis on solidarity as a last resort is a result of the opposition of Member States towards the inclusion of a strict solidarity mechanism. It can also be seen as a final attempt by the Commission to discourage ‘free riding’ and encourage Member States to have robust arrangements in place to save themselves in a crisis.

5. Conclusion

The big theme of the new security of gas supply regulation is ‘solidarity’. The EU put into place a number of new measures to that extent. However, they also include some ‘exit gateways’ for Member States that are unwilling to participate to the full extent. Moreover, there is still considerable leeway for discretion of Member States, for instance in cases where multiple Member States could potentially provide solidarity. In these cases the Member State receiving solidarity could ‘steer’ its decision towards countries with which it already has a strong relationship via its interpretation of terms like reliability and diversification of supplies. This might lead to situations where not the optimal, most efficient solution is being selected. It is also interesting to note that renewable gases are not considered by Regulation (EU) 2017/1938.

The fact that there are numerous little exemptions and confinements to the solidarity provisions is merely a manifestation in law of an underlying problem. The debates about the composition of risk groups showcased that Member States are reluctant to participate in the proposed solidarity mechanisms and are cautiously watching their sovereignty over energy matters. Against this backdrop the new provisions constitute a big step and could be deemed as a considerable ‘win’ for the Commission. But as previous gas crises have shown, the words on paper are not worth much if there is no willingness to comply when push comes to shove.

Ultimately, this ties in with the more conceptual discussion on what energy justice is and what ‘just’ energy transitions could look like. Both Heffron/McCauley on the one hand and Sovacool et al. on the other hand developed criteria for energy justice. An in-depth assessment and discussion of the varying criteria lies beyond the scope of this article. However, as Heffron and McCauley pointed out, energy justice, reduced to its simplest form, refers to the application of human rights across the energy life-cycle (from cradle to grave). This energy justice concept of itself is part of a broader concept of ‘just transition’. Besides energy justice there are two other components of a just transition. On the one hand climate justice concerns (sharing the benefits and burdens of climate change from a human rights perspective) and on the other hand environmental justice (aiming to treat all citizens equally and to involve them in the development, implementation and enforcement of environmental law, regulations and policies).

From the application of these concepts to the new gas security of supply regulation three policy recommendations/implications can be drawn. First, solidarity in gas supply security needs to be strengthened. The EU institutions need to reflect on the need to put positive incentives for solidarity into place (the financial compensation mechanism being a first, very tentative step). This is because, second, the imposition of solidarity in a top-down manner proved to be not very successful in the past in Regulation (EU) 994/2010. As the analysis of the EU’s own institutions as well as others, such as ENTSO-G, highlight, the problem has been that Member States did not trust and believe that a gas solidarity mechanism can work in the EU. The political task for the EU institutions is to convince Member States of the numerous advantages of a solidarity mechanism. To just force and impose solidarity with a legislative ‘iron bar’ will not create the feeling, the spirit of solidarity that is needed for Member States. The EU should change the way in which it tries to bring Member States to ‘live’ gas solidarity – in short: seduce rather than punish them. This is also supported by legal theory research into ‘good’ regulation, which is showing that a regulation works best if it is not entirely opposed to the inner will and motivation of the regulated.

This leads to the third and final policy recommendation of this article. It is crucial for the EU to clarify the role and function it has vis-à-vis EU Member States in gas supply security. This, again, touches upon the ‘energy justice’ concept, but also on the participatory component of a ‘just transition’, insofar as the ‘fundamental right’ of sovereignty over natural resources that states are enjoying, has been limited by article 194 of the Treaty on the Functioning of the European Union (TFEU). Article 194 TFEU, in essence, reserves certain areas of energy policy and regulation to the EU Member States, while transferring others to the EU-level. The EU and the Member States need to better negotiate what their respective roles are in gas security of supply. However, such difficult negotiations can only succeed if the EU is convincing (rather than forcing Member States to accept) that solidarity mechanisms for gas within the EU have a vital role to play.

120 Preambles 38–42, articles 1, 13 (3) Regulation (EU) 2017/1938.