

**OPINION OF THE AGENCY FOR THE COOPERATION OF ENERGY  
REGULATORS No 24/2017**

**of 15 December 2017**

**ON ENTSOG'S WINTER SUPPLY OUTLOOK 2017/2018**

THE AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

HAVING REGARD to Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators<sup>1</sup> (hereinafter referred to as "the Agency"), and, in particular, Article 6(3)(b) thereof,

HAVING REGARD to 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<sup>2</sup>, and, in particular, Article 9(2) thereof,

HAVING REGARD to the favourable opinion of the Board of Regulators of 13 December 2017, delivered pursuant to Article 15(1) of Regulation (EC) No 713/2009,

WHEREAS:

- (1) The European Network of Transmission System Operators for Gas (hereinafter referred to as "ENTSOG") developed, adopted and published on 17 October 2017 the Winter Supply Outlook 2017/2018 pursuant to Article 8(3)(f) of Regulation (EC) No 715/2009.
- (2) Pursuant to Article 6(3)(b) of Regulation (EC) No 713/2009, the Agency shall provide an opinion to ENTSOG on, *inter alia*, relevant documents referred to in Article 8(3) of Regulation (EC) No 715/2009, as submitted to the Agency pursuant to Article 9(2), first subparagraph, of Regulation (EC) No 715/2009,

**HAS ADOPTED** the following Opinion on ENTSOG's Winter Supply Outlook 2017/2018:

1. The Agency welcomes the publication of the Winter Supply Outlook 2017/2018 by ENTSOG ahead of the winter season.
2. The Agency appreciates the analysis of the gas supply and demand trends and patterns contained in the Winter Supply Outlook 2017/2018 and in the documents accompanying the Outlook.
3. The Agency underlines the importance of the main conclusions of the Winter Supply Outlook 2017/2018 regarding gas supply.

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<sup>1</sup> OJ L211, 14.8.2009, p. 1.

<sup>2</sup> OJ L211, 14.8.2009, p. 36.

- According to the ENTSOG modelling and supply assumptions, this Winter Supply Outlook confirms the ability of the European gas infrastructures to face a Cold Winter 2017/18 with sufficient flexibility in most parts of Europe. This assessment is valid throughout the season and under high demand situations.
- The national production of gas within the European Union continues a declining trend.
- Gas supply via withdrawal from underground gas storage (UGS) may face challenges during the winter season, for example in view of the fact that the gas available in storage on 1 October 2017 (84% of total working UGS capacity) is close to its five-year minimum (82%, observed in October 2015)<sup>3</sup>. Hence levels of gas in storage are close to the starting level defined for the ENTSOG Union Wide Simulation under Regulation (EU) 2017/1938 (SoS Regulation)<sup>4</sup>. Of particular importance is also the fact that levels of gas in storage are much lower in some countries, for example in Latvia, Portugal and Sweden. The Agency notes that, in Europe, gas supply from UGS has historically been the main source for gas needed to balance supply and peak demand during the winter, both on seasonal and short-term basis, and levels of gas in storage should be adequate to help assure such balance.
- The Agency also agrees that the potential effects of the availability of gas supply from UGS may not be an issue by itself and need to be considered in greater detail and within the broader supply context, as in some instances supply flexibility would be sufficient even though supply from UGS is reduced. For example, although the volume of gas in storage will decrease with the closure of Rough UGS in the United Kingdom, gas supply still looks secure in this country in ENTSOG's analysis, as supply flexibility in the United Kingdom comes from a range of gas sources.
- In the case of a "Cold Winter" occurring<sup>5</sup>, the supply of liquefied natural gas (LNG) would need significantly to exceed the one observed over the last five years, otherwise the volume of gas in storage at the end of the winter season could fall to a historically low level, unless, as pointed out by ENTSOG, shippers continue to fill UGS by 1 November 2017 and thus secure higher flexibility.
- The limited gas transmission capacity between Serbia and Bosnia and Herzegovina could expose Bosnia and Herzegovina to demand curtailment on the occurrence of a "peak demand day"<sup>6</sup>.

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<sup>3</sup> ENTSOG does not indicate how the overall level of working gas capacity in the EU gas storages has developed compared to 2016, hence it is not evident in the Winter Supply Outlook 2017/2018 to what extent the absolute level of gas stocks changed between last year and this autumn.

<sup>4</sup> Regulation (EU) 2017/1938 of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010, OJ L 280/1, 28.10.2017.

<sup>5</sup> The case of "Cold Winter" is a gas demand and exports scenario defined by ENTSOG and provided in Fig. 19 (p. 23) of the Winter Supply Outlook 2017/2018.

<sup>6</sup> "Peak demand day" is a high gas demand scenario defined by ENTSOG and considered *vs.* the "design case" of the infrastructure, *cf.* Fig. 18 (p. 22) of the Winter Supply Outlook. In the document, ENTSOG denotes Bosnia and Herzegovina as "Bosnia".

4. The Agency appreciates ENTSOG's consideration of gas quality for the preparation of the Winter Supply Outlook 2017/2018, namely the attention to the L-gas zones of France (FRnL - France North L-gas) and Germany (DEgL and DEnL for Gaspool L-gas and NetConnect L-gas). However, the Agency questions why L-gas is not considered in the Netherlands and in Belgium. In addition, the Agency notes that the partial coverage of L-gas raises doubts regarding the consistency of the analysis and the validity of the conclusions with regard to L-gas. The Agency also notes the important confirmation that the restrictions on gas supply arising from gas odourisation are reflected by ENTSOG in the technical capacities used in the network model, as provided for the concerned interconnection points (IPs) by the relevant transmission system operators (TSOs). The Agency appreciates the improvements of the modelling tool as stated by ENTSOG, in line with its previous recommendations, also regarding the reported use of a finer granularity in the storage topology. However, the Agency, given the scope of the provided information, is unable fully to consider the merits of these upgrades, nor to consider the impact of these upgrades on the quality of the analysis and the conclusions.
5. The Agency finds reasonable ENTSOG's approach to defining supply patterns used in the Winter Supply Outlook 2017/2018 for the maximum supply potentials of the different sources providing gas to the European Union via pipeline (Algeria, Libya, Norway, Russia) on the basis of 5-year historical data, including the setting of supply limitations for different time scales (entire winter season, monthly and daily volumes), in a way so that the maximum flow from each source cannot exceed the reasonable levels based on historical observations<sup>7</sup>. Similarly, the Agency finds the definition of the likely gas supply patterns from UGS and LNG regasification terminals reasonable<sup>8</sup>.
6. The Agency underlines the importance of the main conclusions of the Winter Supply Outlook 2017/2018 regarding the ability of the gas infrastructure (in ENTSOG's understanding, H-gas as well L-gas infrastructure without distinction) flexibly to handle gas supply and thus meet demand variations in most parts of Europe, even in a "Cold Winter" case, notably that the European gas system:
  - offers sufficient flexibility across the winter season in Europe, provided gas<sup>9</sup> is available, even though ENTSOG has revised gas peak demand levels upwards in many countries, reflecting the experience of the January 2017 cold weather spell; and
  - is also capable of transporting significant volumes of gas to Energy Community Contracting Parties and other EU neighbouring countries.
7. The Agency appreciates ENTSOG's greater focus on gas supply patterns and the likely balance of supply and demand, as well as the continuation of the analysis of the remaining flexibility of the system, in comparison to earlier seasonal Outlooks. The Agency considers important the carrying out of analyses based on the requirements of the SoS Regulation,

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<sup>7</sup> Cf. Winter Supply Outlook, p. 6.

<sup>8</sup> Cf. Winter Supply Outlook, p. 8 (table).

<sup>9</sup> In ENTSOG's understanding, H-gas as well L-gas without distinction. In particular, ENTSOG states that "according to the ENTSOG modelling and supply assumptions, this Winter Supply Outlook confirms the ability of the European gas infrastructures to face a Cold Winter 2017/18 with sufficient flexibility in most parts of Europe. This assessment is valid throughout the season and under high demand situations" (Cf. Winter Supply Outlook, p. 18).

which for the first time have been made part of the Winter Supply Outlook 2017/2018. The Agency notes that, given the likely continuing decline of domestic gas production within the European Union and the likely increased dependence on imports of gas, even in case gas demand stays below historical annual and seasonal peak levels, disruptions of gas imports (if any) would be the most likely reason for involuntary curtailment of demand.

8. The Agency notes that the variations in the supply-demand balance and in the remaining gas supply infrastructure flexibility are assessed by ENTSOG generally in compliance with the SoS Regulation, in particular by defining the “Cold Winter” demand assumptions as the historical maximum observed at country level since the winter of 2009/2010, except for countries where “structural changes” have implied an overall decrease of the gas demand over the last years. However, the Agency notes that the way in which ENTSOG’s decision has been made regarding the exclusion of such countries from the general rule of using demand assumptions in line with the SoS Regulation is not entirely clear in the Winter Supply Outlook 2017/2018. For the sake of consistency, the Agency invites ENTSOG in the future always to run a simulation or simulations, as the case may be, which fully comply with the SoS Regulation for all countries, and provide its results in the future Winter Supply Outlooks.
9. The Agency appreciates the provision in the Winter Supply Outlook 2017/2018 of detailed per-country assessments of the remaining system flexibility and the likelihood of demand curtailment under normal (reference), 2-week cold spell, and 1-day peak demand conditions<sup>10</sup>. However, the Agency notes that these assessments are based on the assumption that no gas supply disruption from any major supplier occurs, an assumption which is not in line with the pattern actually observed, for example, during the winter of 2009/2010 and, to a lesser extent, in 2015. The Agency recalls that in those instances of supply disruption, demand had to be curtailed in several countries, and that the risks of such curtailment were rather unevenly distributed across Member States and groups of consumers, and invites ENTSOG to consider the inclusion of such supply disruptions in future Winter Supply Outlooks.
10. The Agency recalls its view that a crucially important type of analysis is still missing from the Winter Supply Outlook 2017/2018, namely the analysis determining the required minimum level of gas supplies from each major supply corridor that cannot be substituted for by other gas flows due to the minimal flow requirements across routes needed to guarantee the flow dispatching capabilities of the networks. Such an assessment of minimum gas supply levels by route would clearly indicate the level of gas supplies below which the integrated European gas system is unable to dispatch the necessary gas flows to areas impacted by a gas supply disruption. The Agency therefore calls on ENTSOG to include in its future Winter Supply Outlooks analyses, taking into account:
  - the physical availability of gas supplies and their plausible variations (minimum, maximum), including a disruption of gas supply from each major source of gas by pipeline from outside the European Union, along with the technical ability of the undisrupted gas suppliers outside the European Union to transport substantially higher

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<sup>10</sup> Cf. Winter Supply Outlook 2017/2018, Figure 11, p. 15.

- gas volumes to EU Member States and Energy Community Contracting Parties in order to compensate for the disrupted supply;
- a more comprehensive overview of the bottlenecks within the gas transmission systems (bottlenecks identified via hydraulic modelling of national infrastructure) which impact the actual cross-border gas transmission capacities under different supply disruption conditions, also accounting for likely weather and load (demand) conditions; and
  - the potential effects of demand-side measures on the gas supply and demand balance, taking into account the possibilities for demand-side response, including interruptible supply contracts.
11. The Agency notes that it is essential that ENTSOG be in a position to deliver a more comprehensive assessment, including not only the network capability, but also the dispatching of physical gas flows to meet demand. An analysis including all the aspects in point 10 above is vital in light of the new role for ENTSOG in carrying out a Union-wide simulation of supply and infrastructure disruption scenarios in the framework of the SoS Regulation.
12. The Agency invites ENTSOG to indicate in forthcoming Winter Supply Outlooks how the level of gas stocks in LNG tanks is defined, as the assumptions about the level of LNG stocks are important for the identification of available gas supplies under both normal and stress (high demand or disrupted supply) conditions.
13. The Agency welcomes the Winter Review 2017/2018, which is prepared by ENTSOG on a voluntary basis. The Agency notes that the Review provides valuable insights into the trends and patterns actually observed in the past winter season.
14. The Agency is of the view that the Winter Supply Outlook 2017/2018 meets the objectives of Regulation (EC) No 713/2009 and Regulation (EC) No 715/2009 in terms of contributing to non-discrimination, effective competition and the efficient and secure functioning of the internal natural gas market.
15. This opinion is addressed to ENTSOG.

Done at Ljubljana on 15 December 2017.

For the Agency:



Alberto Pototschnig  
Director