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# ANNUAL REPORT ON CONTRACTUAL CONGESTION AT INTERCONNECTION POINTS

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6<sup>th</sup> edition

**Period covered: 2018**

Version of 27 May 2019

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# 1. Executive summary

- (1) The Commission Guidelines on Congestion Management Procedures (“CMP GL”)<sup>1</sup>, in particular its paragraph 2.2.1(2), stipulate that the Agency for the Cooperation of Energy Regulators (“the Agency”) has to publish a yearly report on contractual congestion at Interconnection Points (“IPs”). The present Congestion Report is the sixth Report fulfilling this legal provision.
- (2) The CMP GL defines contractual congestion as a situation where at least one of the four criteria listed in paragraph 2.2.3(1) of the CMP GL is met. Therefore, this report aims to identify contractual congestion at IPs in the European Union for products sold during 2018 for use in 2018, 2019 or 2020. The Report analyses where demand exceeded the offer of firm capacity, and, in line with paragraph 2.2.3(1)(d) of the CMP GL, at which IP sides no firm capacity product with a duration of one month or longer was offered.
- (3) Based on the data provided by ENTSOG and the three Booking Platforms, the following conclusions can be drawn:
  - Significantly more IP sides are labelled as congested this year (31) than last year (17), although the number of CMP-relevant IP sides is similar to last year. Between 2017 and 2018, the number of “congested” IP sides due to premia emerging in the auctions rose from 6 to 16, while the number of “congested” IP sides due to the non-offer of capacity products increased from 11 to 15. 13 out of 15 congested IP sides due to the non-offer of capacity products were not congested last year. One<sup>2</sup> of the other 2 points that were congested in 2017 was also congested in 2016, 2015 and 2014.
  - An increased number (25) of IP sides that were not congested in 2017, are this year labeled as congested, 13 of those due to the non-offer of capacity products,<sup>3</sup> while other 12 due to premia.
  - Out of the 16 IP sides congested due the auction premia, 11 of them were congested due the premia emerging in the auction for yearly products (5 of them also on Quarterly products).
  - The Firm Day-Ahead Use-It-Or-Lose-It (FDA UIOLI) mechanism is already applied at 10 of the 31 IP sides detected as contractually congested. This means that at the remaining 25 contractually congested IP sides, the respective National Regulatory Authorities (NRAs) shall require the relevant TSO(s) to implement and apply the FDA UIOLI mechanism, according to paragraph 2.2.3(1) of the CMP GL, or show that the congested situation is unlikely to reoccur in the following three years.
  - Six of the 31 IP sides identified as contractually congested in this Report were already assessed as congested in the Agency’s Congestion Report last year, and 2 of those in the Congestion Report the year before.
  - Physical congestion, indicated by actual interruptions of interruptible capacity, occurred at four contractually congested IP sides with varying frequencies.

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<sup>1</sup> Commission Decision of 24 August 2012 on amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks (2012/490/EU), OJ L 213/16, 28.8.2012, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:231:0016:0020:en:PDF>

<sup>2</sup> Kienbaum GASCADE exit

<sup>3</sup> The number of IPs congested due to the non-offer of capacity increased this year. This might be caused by a data issue (for instance when capacity is not offered through a capacity booking platform).

## 2. Recommendations

### 2.1 Recommendations for TSOs, ENTSOG and NRAs

- (4) Although an overall improvement has been achieved on data quality and the data files from ENTSOG, including the CAM scope list and instructions being better prepared for the analysis, the experience gained in producing this report indicates that the recommendations with respect to data quality from the previous report are still relevant. In order to improve data availability, consistency and transparency, the Agency reiterates the following recommendations.
- (5) On improving data quality, implementing automated data processing and making the data available at one single platform, progress was limited.
- ENTSOG/TSOs shall ensure that auction results with premia and data on all non-available capacity products are uploaded on the ENTSOG's Transparency Platform (TP), as required by the CMP GL.
  - The alignment of EIC codes and of IP and TSO names and formats ("unique identifier"<sup>4</sup>) used for the IPs in the NC CAM scope list is necessary and still to be achieved on both ENTSOG's TP and on booking platforms, to enable the consistent use of these identifiers by stakeholders and for an efficient and automated data processing (TSOs, ENTSOG) and data analysis (the Agency, NRAs, stakeholders).
  - Although ENTSOG has updated its version of the CAM/CMP scope list, a few IPs were still identified as non-relevant<sup>5</sup> during the analysis. Therefore, based on the findings in this Report, ENTSOG shall adapt and publish the updated CAM/CMP IP scope list on its TP.
  - ENTSOG's TP should aim to incorporate information on bundled capacities<sup>6</sup>.

### 2.2 Policy recommendations

- (6) On the basis of the experience gained in producing the Congestion Reports and as a result of the outcome of the Agency's public consultation on the "congestion indicators", the Agency reiterates the following recommendations to the European Commission (EC):
- The EC may consider amending the CMP GL to improve the effectiveness of the CMP measures, in particular when applied as preventive measures<sup>7</sup>, before contractual congestion occurs;
  - The Report fulfils the requirements of the CMP GL to analyse the auction data for a calendar year. However, the Agency highlights that the CMP GL should be improved in two ways:
    - i. Gas capacity auctions follow an auction calendar that is organised according to the gas year, which lasts from 1 October of the calendar year until 30 September of

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<sup>4</sup> An IP side can be uniquely identified only with a combination of the following: IP name, TSO, direction, connected TSO.

<sup>5</sup> The Agency notes that TSOs and NRAs tend to check and comment only those IP sides that are labelled as "congested", "formally congested" and "close to be congested". IP sides which are labelled as not congested tend not to be verified in terms of their CAM/CMP relevance.

<sup>6</sup> Currently, some commercial information on capacity products (e.g. on bundling and the level of firmness and allocability of firm capacity) is not available on the ENTSOG TP. Such data is only publicly accessible through the reporting of the three booking platforms. In order to fully comply with CMP GL's obligation to report on auction premia on the ENTSOG TP, at least an indicator on whether the auction premia occurred for bundled or unbundled capacity products is necessary. For the future it would be desirable to have a single platform for all public gas transport data related to CAM, CMP, balancing and tariff data to enable stakeholders to efficiently access all the required information in a harmonised form(at).

<sup>7</sup> At least at those IP sides which are found „potentially“ or „close to be“ congested, or where the TSOs can anticipate any risk for contractual congestion occurring.

the following calendar year. The scope of the analysis in the Congestion Report should be aligned and follow the Gas Year. The current wording in the CMP GL does not allow the Agency to do this;

- ii. A clarified CMP GL could make the congestion analysis more market oriented. For network users it is relevant to have the opportunity to book capacity for delivery throughout the period under review – regardless of whether the booking takes place for any month during the year, in the form of either monthly, quarterly or yearly products. The current practice in the Congestion Reports has been to analyse whether at least one product with a minimum duration of one month has been offered during the period under review.
- Therefore, the following recommendations from last year’s Congestion Report are still valid and restated:
  - i. The EC may consider **aligning criterion d)** of paragraph 2.2.3(1) of the CMP GL with the other congestion criteria. The current reading of criterion d) considers an IP side not congested if at least one monthly product was offered out of 12 months in the preceding year’s rolling monthly auction procedures.
  - ii. Alternatively, criterion d) could be aligned with the timeframes of criteria b) or a) as follows: “At least 6 [but minimum 3] monthly products should be offered at an IP in order for it not to be considered contractually congested.
- With respect to paragraph 2.2.1 of the CMP GL, the Commission may consider clarifying, as recommended also in last year’s Congestion Report:
  - i. **Until when** the Agency shall produce Congestion Reports (or under which conditions the reports are not required anymore);
  - ii. An **implementation period** for the FDA UIOLI mechanism, if congestion is identified at IP sides only after 1 July 2018 and the respective NRA has decided to require the TSO to implement and apply the FDA UIOLI mechanism.
- The EC may also consider to extend the **scope of “contractual congestion”** to the **day-ahead timeframe** between hubs (requiring the Agency to assess auction premia and the non-offer of firm day-ahead products at a cross-zonal level), which could then also result in an mandatory application of the FDA UIOLI mechanism at IPs/VIPs/IP sides between the corresponding market areas, to promote short-term gas market price convergence.
- In addition, it should be further clarified that Article 6 of Regulation (EU) No 984/2013 regarding the joint method to maximise capacity and the dynamic approach to capacity **(re-)calculation, takes priority over the application of oversubscription** in the yearly, quarterly and monthly timeframe.

### 3. Introduction and concepts of congestion

- (7) According to paragraph 2.2.1(2) of the Commission Guidelines on Congestion Management Procedures (hereafter, the “CMP GL”<sup>8</sup>), the Agency has a legal obligation to publish a yearly report on contractual congestion at interconnection points (“Congestion Report” or “Report”) by 1 June<sup>9</sup> of each year, starting from 2014.
- (8) In accordance with Article 7 of Regulation (EC) No 713/2009 the Agency and the national regulatory authorities should ensure that the most effective congestion management procedures are implemented at the applicable entry and exit points across the European Union (“EU”).
- (9) The purpose of this Report is to identify contractual congestion at IPs<sup>10</sup> between entry-exit zones in the EU, based on the definition in Article 2(21) of Regulation (EC) No 715/2009. In particular, the Report aims to detect whether at least one of the criteria set out in paragraph 2.2.3(1) of the CMP GL is met during the reference period, from 1 January 2018 to 31 December 2020. In cases where the IP side is identified as congested, the application of the Firm Day-Ahead Use-It-Or-Lose-It (“FDA UIOLI”) CMP mechanism may be triggered. The concerned National Regulatory Authorities (“NRAs”) shall then require the respective Transmission System Operators (“TSOs”) to apply the FDA UIOLI mechanism at the congested IP (side), unless they show that a congested situation is unlikely to reoccur in the following three years<sup>11</sup>. In such cases, the relevant NRAs may decide to terminate or not to request the application of the FDA UIOLI mechanism.
- (10) This sixth edition of the Report is based on data on firm capacity products sold in 2018 for use in 2018, 2019 and 2020, as published by each TSO on the ENTSOG Transparency Platform (TP). The publication of such data is regulated by Section 3 of Annex I to Regulation (EC) No 715/2009<sup>12</sup> and, where appropriate, the data are validated by the NRAs. The analysis covers bundled and unbundled firm products for CAM-relevant IP sides. In addition to firm capacity products, the Agency in assessing contractual congestion, needs to take into consideration, to the extent possible, capacity trading on the secondary market.
- (11) The concepts of contractual congestion and physical congestion are defined in Articles 2(21) and 2(23) of Regulation (EC) No 715/2009 in the following way:
  - “contractual congestion” means a situation where the level of firm capacity demand exceeds the technical capacity;
  - “physical congestion” means a situation where the level of demand for actual deliveries exceeds the technical capacity at some point in time.
- (12) Contractual congestion during time periods without physical congestion can be tackled through the CMPs laid down in the CMP GL. The CMP GL contains certain criteria that require the application of the FDA UIOLI mechanism.
- (13) The criteria which may lead to the application of the FDA UIOLI are set out in paragraph 2.2.3(1) of the CMP GL. In particular, FDA UIOLI shall be applied at IPs where, based on this Report, it is shown that demand exceeds supply, at the reserve price when auctions are used, in the course of

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<sup>8</sup> Commission Decision of 24 August 2012 on amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks (2012/490/EU), OJ L 213/16, 28.8.2012, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:231:0016:0020:en:PDF>

<sup>9</sup> The original deadline of 1 March was changed to 1 June of every year.

<sup>10</sup> IPs cover both physical IPs and virtual IPs (VIPs). Physical IPs on the same border have been or will be merged in a single VIP.

<sup>11</sup> For example, due to capacity becoming available by a physical expansion of the network or through the termination of long-term contracts.

<sup>12</sup> Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005, OJ L211/36, 14.8.2009, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0036:0054:en:PDF>

capacity allocation procedures for products for use in either that year or in one of the subsequent two years:

- for at least three firm capacity products with a duration of one month, or
- for at least two firm capacity products with a duration of one quarter, or
- for at least one firm capacity product with a duration of one year or more, or
- where no firm capacity product with duration of one month or more has been offered.

(14) The concepts above will be used throughout the Report to describe and analyse contractual congestion.



## 4. Congestion analysis and applied methodology

### 4.1 Interpretation of congestion

- (15) The concepts of contractual congestion and physical congestion, as defined in Articles 2(21) and 2(23) of Regulation (EC) No 715/2009, were described in paragraph (11) in the Introduction.
- (16) The Agency understands that:
- A frequent occurrence of physical congestion cannot be remedied through the application of CMPs, because CMPs create capacities either virtually by oversubscription or physically, by re-allocating unused capacities. If flows are limited by technical capacity constraints, infrastructure expansions, where efficient, or, in some instances, contractual arrangements, such as flow commitments, could be proposed to handle physical congestion.
  - Contractual congestion without physical congestion can be tackled through the CMPs laid down in the CMP GL. When physical constraints are not apparent, the allocation of additional capacities to new users could be feasible.

The CMP GLs contain, in paragraph 2.2.3(1), certain criteria that require the application of the FDA UIOLI mechanism, as explained in paragraph 15 of the Introduction.

- (17) The main purpose of this Report is to identify for which IP sides at least one of these criteria is met during the analysed period. For the purpose of this Report, IP sides fulfilling at least one of the above-mentioned criteria are identified as “contractually congested”. That situation occurs if there is more market demand than offers for a certain capacity product for a distinct duration at a specific moment in time, which can be observed in the following ways:
- where capacity is made available in auctions, congestion is apparent once the auction clears with an auction premium<sup>13</sup>;
  - in cases where available firm capacity at the concerned IP is fully booked or exceptionally, auctions are not yet used, the capacity demand exceeding the offer at the reference price could be indicated either as an “unsuccessful request” for capacity and/or as demand for interruptible capacity that exceeds the typical demand for interruptible capacity at the IP.
- (18) All references to the occurrence of “congestion” or “congested IPs” in this Report should be understood in the light of the above definitions and criteria. Some of the IPs identified as contractually congested could also be physically congested.
- (19) There can be cases of contractual congestion which are not covered by the four criteria of paragraph 2.2.3(1) of the CMP GL; for example, contractual congestion can also occur on the day-ahead or within-day timeframe (and would still fall under the general definition of contractual congestion in Regulation (EC) No 715/2009). Absent specific criteria under the above-mentioned paragraph, such instances are not included in the scope of this Report.

### 4.2 The procedure of identifying congested IP sides

- (20) To assess the existence of contractual congestion, auction reports were downloaded from the booking platforms’ websites, consolidated, filtered and arranged for the relevant data analysis with the attributed unique identifiers, as described in Annex 1. All consolidated auction reports were screened, IP by IP, for the offer and non-offer of capacity products and for those auctions at IPs where total capacity demand exceeded the offer and/or where auction premia occurred for monthly/quarterly/yearly products.

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<sup>13</sup> The auction premium is a top-up paid by the successful bidder, on top of the reserve price at a specific IP.

- (21) In line with the criteria set out in paragraph 2.2.3(1) of the CMP GL, the IP sides for which auction premia occurred and/or non-offers of firm products occurred were labeled as contractually “congested”. The reason for congestion was recorded as well. If auction premia occurred at a lower frequency than indicated in the CMP GL, the IP side was marked as “close to be congested”, following the practice of the previous Congestion Reports. The IP sides for which only the yearly product for the Gas Year 2019/20 was not offered were labeled as “formally congested”<sup>14</sup>, following again the practice of previous Reports. The remaining IP sides were considered “not congested”.
- (22) Additionally, where the data was provided by TSOs, the products (monthly, quarterly, yearly) traded on the secondary market were included in the analysis, together with the occurrences of premia in the day-ahead auctions. Where the firm capacity products were congested, the use of the interruptible capacity was checked and its volumes were presented together with the volumes of unplanned interruptions. In order to track the development of congestion over time, the analysis included in the previous Congestion Reports was considered.

### 4.3 Severity of congestion

- (23) For those IP sides found congested, further information on whether interruptible capacity was offered at an IP side was verified based on the booking platform data. The information on interruptible capacity bookings can be used in the analysis to indicate that demand for capacity exceeded the actual offer of firm capacity. This is in line with the provision of the CMP GL “to take into account the use of interruptible capacity”.
- (24) Additionally, the occurrence of actual interruptions of nominated interruptible capacity (as a possible indicator for physical congestion) was documented, based on ENTSOG’s TP data (transport data, export file and online). For the identified contractually congested IP sides, additional information was used to assess the severity of congestion:
- whether they were already found contractually congested in the previous five Congestion Reports;
  - whether the FDA UIOLI mechanism is already applied;
  - to which extent secondary capacity trading took place;
  - whether auction premia also occurred at the day-ahead level in 2018.

### 4.4 Mitigation of congestion

- (25) According to paragraph 2.2.3 of the CMP GL, any additional capacity made available through the application of one of the CMPs shall be offered by the respective TSO(s) in the regular allocation process.
- (26) The CMP GL Section 2.2 defines four CMP measures to mitigate congestion:
- *Long-term UIOLI*: Article 2.2.5 of the CMP Guidelines describes the procedure of Long-term Use-it-or-lose-it (LT UIOLI). This is a mechanism with the specific intention of deterring capacity hoarding over the longer term. LT UIOLI dictates that NRAs require their TSOs to fully or partially withdraw systematically underutilised capacity when certain criteria are met. The process could lead to the release of yearly products, if triggered.
  - *Firm Day-Ahead UIOLI*: In case the demand for firm day-ahead capacity exceeds the offer, NRAs shall establish a transparent and non-discriminatory firm day-ahead UIOLI mechanism which brings unused firm capacity back to the market on a day-ahead basis.

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<sup>14</sup> Some TSOs did not offer the standard yearly products beyond the following Gas Year or the Yearly capacity product for 2019/20 could not be offered due to the short-term “quota” obligation (i.e. capacity set aside according for short-term use pursuant to Article 8(7)(b) of NC CAM). It should be noted that the amended NC CAM (Commission Regulation (EU) 2017/459) obliges the TSOs to offer at least the upcoming 5 Gas Years from July 2018 on, concerning yearly products as of the Gas Year 2018/19.

TSOs are not incentivised financially by this CMP. The network user loses its capacity and provides the additional capacity volumes by being subject to re-nomination restrictions.

- *Oversubscription*: The Oversubscription mechanism allows TSOs to offer more firm capacity than is technically available at IPs of the national network, on the assumption that not all the allocated capacity will be actually used by network users. This scheme provides financial incentives for the TSOs, and requires basic modelling, built on statistical scenarios.
- *Surrender*: Surrender of Capacity is a CMP measure that allows shippers to return their capacity to the TSO. The TSO will again offer this capacity in the primary market (auction on a booking platform). Capacity returned by shippers will only be sold after the TSO has sold its own available capacity. During the auction, the capacity given back by a shipper will not be distinguished from the TSO capacity, and it will be offered based on the standard volume and price units applied in the auctions.

## 5. Outcomes of the congestion analysis

### 5.1 The IP points considered for congestion analysis

- (27) For this year's Report, 364 IP sides were considered to be CAM-relevant, based on the feedback received from the TSOs. This is 2 IP sides fewer than last year, when the Agency considered 366 CAM-relevant IP sides for its analysis.
- (28) The composition of IP sides changed for several reasons. For instance, 9 IP sides considered as CMP-relevant in 2017 are indicated as non-CMP relevant in 2018 and several physical IP sides<sup>15</sup> have been merged into a lower number of virtual interconnection points (VIPs). On the other hand, the new Baltic IP sides<sup>16</sup> were included in the list, next to newly created IP sides<sup>17</sup> elsewhere in the EU.
- (29) Overall, in 2018, there were 255 CMP-relevant IP sides, 6 fewer than in the previous year.

### 5.2 Overview of congestion results

- (30) The IP sides have been classified into four mutually-exclusive categories as a result of the congestion analysis.
- i. *“congested”*: those which meet the criteria set in sub-paragraphs (a) to (d) of paragraph 2.2.3(1) of the CMP GL, but do not fall into category ii below;
  - ii. *“formally congested”*: those which only meet the criterion set in sub-paragraph (c) of paragraph 2.2.3(1) of the CMP GL because of a missing yearly product for the Gas Year 2019/20 in the auction of 2018/2019;
  - iii. *“close to be congested”*: those which had auction premia occurring at a lower frequency than the threshold defined in the CMP GL criteria, namely either two monthly products or one quarterly product;
  - iv. *“not congested”*: those which do not meet the criteria set in sub-paragraphs (a) to (d) of paragraph 2.2.3(1) of the CMP GL and do not fall into category iii above;
- (31) In the previous Reports, the term “contractually congested” was introduced to comprise the IP sides that are either congested or could be congested in the future. The label “contractually congested”, combines “congested” and “formally congested” IP sides in the classification used for this Report.
- (32) According to the criteria set in sub-paragraphs (a) to (d) of paragraph 2.2.3(1) of the CMP GL, 31 IP sides were identified as congested (compared to 17 last year).
- (33) The occurrence of auction premia resulted in 16 IP sides being classified as congested (compared to six IP sides last year), of which:
- None of the IP sides had congestion for all types of products (monthly, quarterly and yearly) – last year there was one such IP side;
  - 5 IP sides were congested on quarterly and yearly products<sup>18</sup>;

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<sup>15</sup> E.g., Blaregnies (BE) / Taisnières (H) (FR) (Segeo/Troll) and Alveringem, and VIP Brandov-GASPOOL.

<sup>16</sup> E.g., Conexus Baltic Grid JSC Incukalns, Elering Karksi (entry and exit).

<sup>17</sup> E.g., Vitzeroda MÜP.

<sup>18</sup> GCA Oberkappel 21Z00000000001G entry GRTD; GRTD Oberkappel 21Z000000000161V exit GCA; GTG Bunde (DE) / Oude Stanzijl (L) (NL) (GTG Nord) 21Z000000000079G entry GTS; VIP PIRINEOS\_Enagas\_21Z000000000285D\_entry; VIP PIRINEOS\_TERÉGA\_21Z000000000285D\_exit

- 5 IP sides were congested for quarterly products only;
- 6 IP sides were congested for yearly products.

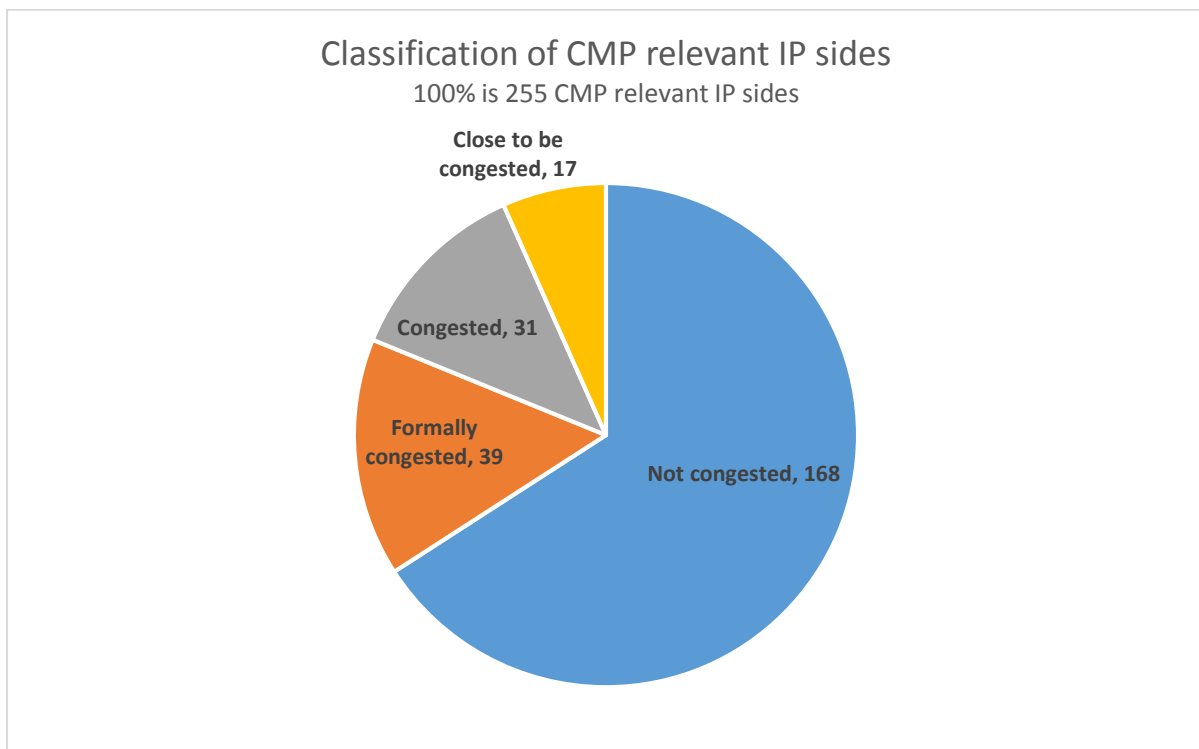
(34) 15 IP sides were identified as congested due to non-offer of capacity products.

(35) Overall, the number of IP sides congested due to the occurrence of auction premia as well as IP sides congested due to the non-offer of firm capacity products has increased compared to the previous year. Occurrences of auction premia increased to 16 in 2018 (from 9 in 2016 and 6 in 2017) and occurrences of non-offer of firm capacity products to 15 in 2018 (from 14 in 2016 and 11 in 2017). Breaking down the congestion results according to the criteria of paragraphs 2.2.3(1) (a) – (d) of the CMP GL, the following can be observed:

- criteria a) to c) see paragraph (33);
- criterion d): no firm capacity product with a duration of one month or more has been offered at 16 IP sides.

(36) Figure 1 graphically presents the results of the analysis.

*Figure 1: Result of the congestion analysis of 255 CMP relevant IP sides (out of 264 CAM relevant IP sides) – 2018*



## 6. Comparison with previous years and day-ahead congestion

### 6.1 Congestion results from previous years (2014-2017)

- (37) The analysis presented in this Congestion Report, based on 2018 data, resulted in 70 IP sides being classified as “contractually congested” (i.e. “congested” or “formally congested” according to the classification presented in paragraph (30) above), compared to 89 IP sides being labelled “contractually congested” in last year’s Congestion Report, based on 2017 data, and 78 IP sides being labelled “contractually congested” in 2016.
- (38) 6 IP sides labeled as “formally congested” in the 2017 Report are labeled “congested” in 2018, 2 of them due to the non-offer of capacity products and 4 due to the occurrence of auction premia.
- (39) In several cases, the non-offer of firm capacity products does not necessarily lead to contractual congestion, because it was the NC CAM capacity quota<sup>19</sup> that prevented the offer of the yearly product of 2019/20.
- (40) With respect to the previous Report, the number of IP sides labelled as “formally congested” has decreased, from 72 (27.5% of CMP-relevant IP sides) to 39 (15% of CMP-relevant IP sides). However, the number of “congested” IP sides has increased from 17 (6.5% of CMP-relevant IP sides) to 31 (12.1% of CMP-relevant IP sides).
- (41) The comparison with the previous Congestion Reports shows that out of the 31 “congested” IP sides in 2018, 6 IP sides were already congested in 2017<sup>20</sup>, while 5 in 2016<sup>21</sup>, 7 in 2015<sup>22</sup> and 4 in 2014<sup>23</sup>.
- (42) There are two IP sides that were continuously congested from 2015 onwards, from the following TSOs:
- Bayernets: Überackern SUDAL (AT) / Überackern 2 (DE) 21Z000000000124 exit GCA;
  - Gascade: Kienbaum 37Z000000001078I exit OGE.
- (43) In addition, out of the 39 formally congested IP sides in 2018, 2 were congested in 2016, 7 in 2015, while none of them was congested in 2017.
- (44) 164 IP sides (64% of the 255 IP sides within the scope of the CMP GL – cf. Section 2.1) were found not to be contractually congested in 2018.
- (45) Out of 255 CMP-relevant IP sides, the majority (210, 82% of the CMP-relevant IP sides) are cross-border IP sides, namely 186 between two EU Member States, 18 between EU Member States and non-EU Member States and 6 within the EU, concerning connections with interconnectors. Most congestion is detected at cross-border IP sides (29, 11.3% of the CMP-relevant IP sides, more than

<sup>19</sup> 10% of technical capacity has to be set aside for offers not earlier than in the auctions for quarterly products.

<sup>20</sup> bayernets\_Überackern SUDAL (AT) / Überackern 2 (DE)\_21Z0000000001240\_exit\_GCA; DESFA S.A.\_Kulata (BG) / Sidirokastron (GR)\_21Z00000000020C\_entry\_BTG; Fluxys TENP GmbH\_Eynatten 2 (BE) // Lichtenbusch / Raeren (DE)\_21Z000000000174M\_entry\_Fluxys Belgium; GASCADE\_Kienbaum\_37Z000000001078I\_exit\_OGE

GCA\_Überackern SUDAL (AT) / Überackern 2 (DE)\_21Z0000000001240\_entry\_bayernets; GRTD\_Oberkappel\_21Z000000000161V\_exit\_GCA; TNBW\_RC Thayngen-Fallentor\_21Z000000000254O\_exit\_Erdgas Ostschweiz;

<sup>21</sup> bayernets\_Überackern SUDAL (AT) / Überackern 2 (DE)\_21Z0000000001240\_exit\_GCA; FGSZ\_Mosonmagyarovar\_21Z00000000003C\_entry\_GCA; GASCADE\_Kienbaum\_37Z000000001078I\_exit\_OGE; LBTG\_Greifswald\_21Z000000000241X\_entry\_Nord Stream; Transgaz\_Negru Voda II, III (RO) / Kardam (BG)→Negru Voda II (RO) / Kardam (BG)\_21Z0000000003022\_exit\_BTG;

<sup>22</sup> bayernets\_Überackern SUDAL (AT) / Überackern 2 (DE)\_21Z0000000001240\_exit\_GCA; GASCADE\_Kienbaum\_37Z000000001078I\_exit\_OGE; GCA\_Überackern SUDAL (AT) / Überackern 2 (DE)\_21Z0000000001240\_entry\_bayernets; GRTD\_Oberkappel\_21Z000000000161V\_exit\_GCA; GUD\_Dornum (EPT1 & EPT2)\_21Z000000000053Y\_entry\_Gassco; LBTG\_Greifswald\_21Z000000000241X\_entry\_Nord Stream; Transgaz\_Negru Voda II, III (RO) / Kardam (BG)→Negru Voda II (RO) / Kardam (BG)\_21Z0000000003022\_exit\_BTG;

<sup>23</sup> GASCADE\_Kienbaum\_37Z000000001078I\_exit\_OGE; GCA\_Überackern SUDAL (AT) / Überackern 2 (DE)\_21Z0000000001240\_entry\_bayernets; LBTG\_Greifswald\_21Z000000000241X\_entry\_Nord Stream; Transgaz\_Negru Voda II, III (RO) / Kardam (BG)→Negru Voda II (RO) / Kardam (BG)\_21Z0000000003022\_exit\_BTG

90% of the congested IP sides). Two in-country cross-zonal IP sides, as well as 4 IP sides with third-countries (non-EU Member States) were also assessed as congested.

- (46) Overall, the result of the congestion analysis show an increase in the number of congested IP sides, due to either the non-offer of capacity products or the occurrence of auction premia. The number of IP sides with auction premia increased from 6 to 16. Some IP sides, congested due the non-offer of firm capacity products, still lack auction procedures and those shall be implemented, i.e. in the Baltic and the South-South-East gas regions. Five formally congested points in 2017 turned up to be congested in 2018.

## 6.2 Results of the 2018 day-ahead auctions

- (47) The analysis presented in this Congestion Report focused on the criteria of paragraph 2.2.3(1) (a) – (d) of the CMP GL. Knowing that the congestion of the IP sides at the day-ahead level could bring an additional angle, the Agency assessed the CMP-relevant IP sides for day-ahead congestion, as well how long-term congestion, as described in Chapter 5, connects to day-ahead congestion. The results of the day-ahead congestion assessment may facilitate NRAs in deciding to enforce the FDA UIOLI at specific contractually congested IP sides.
- (48) The analysis of the three booking platforms' auction reports for day-ahead auctions has revealed the following results.
- (49) On the PRISMA platform, 67 IP sides have at least one day-ahead auction that resulted in auction premia. Among those 67 IP sides, 7<sup>24</sup> are as well labelled as “congested” for long-term products, 6 are labelled as “formally congested”, and 8 are labelled as “close to be congested”.
- (50) These are the ten IP sides with the highest occurrences of auction premia on the day-ahead market:

Operator	Point	Directions	Connected Operator	Exit – Entry zone border concerned	No. of DA auctions with premia
Fluxys TENP GmbH	Wallbach	Exit	FluxSwiss	From DE to CH	81
GRTgaz	Liaison Nord Sud	Exit	/	Inside FR	76
N4G	Brandov-OPAL (DE)	Entry	OPAL	From DE to CZ	49
OPAL	Brandov-OPAL (DE)	Exit	N4G	From DE to CZ	49
SNAM RETE GAS	Tarvisio (IT) / Arnoldstein (AT)	Entry	TAG GmbH	From AT to IT	49 (29 for bundled, 20 for unbundled)
GTS	Oude Statenzijl (L) (NL) Bunde (DE) (GTG Nord)	Exit	GTG	From NL to DE	35
TAG GmbH	Tarvisio (IT) / Arnoldstein (AT)	Exit	SNAM RETE GAS	From AT to IT	29
National Grid	Bacton IPs	Entry	/	UK_GB	24
GTG	Bunde (DE) / Oude Statenzijl (L) (NL) (GTG Nord)	Entry	GTS	From NL to DE	23
GTS	's Gravenvoeren Dilsen (BE)	Entry	Fluxys Belgium	From BE to NL	23

<sup>24</sup> GCA\_Oberkappel\_21Z00000000001G\_entry\_GRTD; GCA\_Überackern SUDAL (AT) / Überackern 2 (DE)\_21Z0000000001240\_entry\_bayernets; GRTD\_Oberkappel\_21Z000000000161V\_exit\_GCA; GTG\_Bunde (DE) / Oude Statenzijl (L) (NL) (GTG Nord)\_21Z000000000079G\_entry\_GTS; TAG GmbH\_Tarvisio (IT) / Arnoldstein (AT)\_21Z000000000004A\_exit\_SNAM RETE GAS

- (51) On the borders of Austria, the Czech Republic, Germany and Italy, FDA UIOLI is already applied to reduce congestion. Four IP sides experience congestion in both forward and reverse directions at the day-ahead level.
- (52) The analysis of the GSA and RBP platforms has not shown systematic day-ahead congestion of any of the IP sides auctioned there.
- (53) Overall, auctions with systematic auction premia were mainly found on the PRISMA booking platform, whereas the other two platforms do not have frequent congestion on the day-ahead market. It seems that the non-offer of long-term capacity has no influence on day-ahead capacity markets, as none of the IP-sides congested due the non-offer of firm capacity products has premia in the day-ahead market. High interest for capacity in the day-ahead market is detected for five IP sides that are congested for long-term products.



## 7. Mitigation of contractual congestion

### 7.1 Extent of congestion at IP level: unsuccessful requests

- (54) At IPs where all capacity products are offered via auctions, an indication of demand exceeding offer can easily be derived from the emergence of auction premia, but the volume of “unsuccessful requests” shall also be calculated to understand the level of congestion. “Unsuccessful requests” are calculated by subtracting total allocated capacity from total demanded capacity at the reserve price. The unsuccessfully requested capacity amounts show to what extent an IP side is contractually congested.
- (55) Similarly to the previous year’s Report, the Agency used ENTSOG’s TP file. This file shows a significantly low number of unsuccessful requests. Unfortunately, unsuccessful requests were reported on ENTSOG’s TP only for 7 out of the 31 congested IP sides and all of those unsuccessful requests relate to IP sides that were labelled congested due to auction premia. The “unsuccessful requests” based on the Agency’s analyses concern 43 IP sides, of which 7 were congested due to auction premia, 6 were formally congested IP sides and 8 were close-to-be-congested IP sides.
- (56) The majority of unsuccessful requests occurred at: Tarvisio (IT) / Arnoldstein (AT) (AT>IT, exit) IP side, followed by Überackern SUDAL (AT) / Überackern 2 (DE)\_21Z0000000001240 (exit). The largest volumes have been requested at the Tarvisio (IT) / Arnoldstein (AT) (AT>IT, exit), followed by the North-South link in France.

### 7.2 Analysis of offer and use of interruptible capacity and instances of interruptions

- (57) Besides the occurrence of unsuccessful requests for firm capacity, the booking(s) of interruptible capacity can also be used as an indicator for capacity demand exceeding the technical capacity, under the assumption that those who booked interruptible capacity would have preferred firm capacity.
- (58) Interruptible capacity was offered for at least one product at 17 of the 31 IP sides for which contractual congestion was identified. At 17 congested IP sides, no interruptible capacity was offered for use in 2018 or 2019. The Agency encourages the offer of interruptible capacity to ease the severity of congestion.
- (59) Interruptible capacity was booked at more IP sides for use in July-September 2018 and July-September 2019 than in the other quarters of the calendar year. The yearly interruptible products for the Gas Year 2018/19 was four times overbooked for 2 IP sides<sup>25</sup>, and the yearly interruptible product for the Gas Year 2019/2020 was not yet booked.

### 7.3 Secondary capacity trading at congested IP sides

- (60) The publication of PRISMA Secondary market data and the reporting of secondary trade data by TSOs directly to the Agency for the IP sides identified as congested has provided more information about the commercial activities on the secondary market. The Agency observes that the trading activities on the secondary market have further improved compared to last year’s Report.

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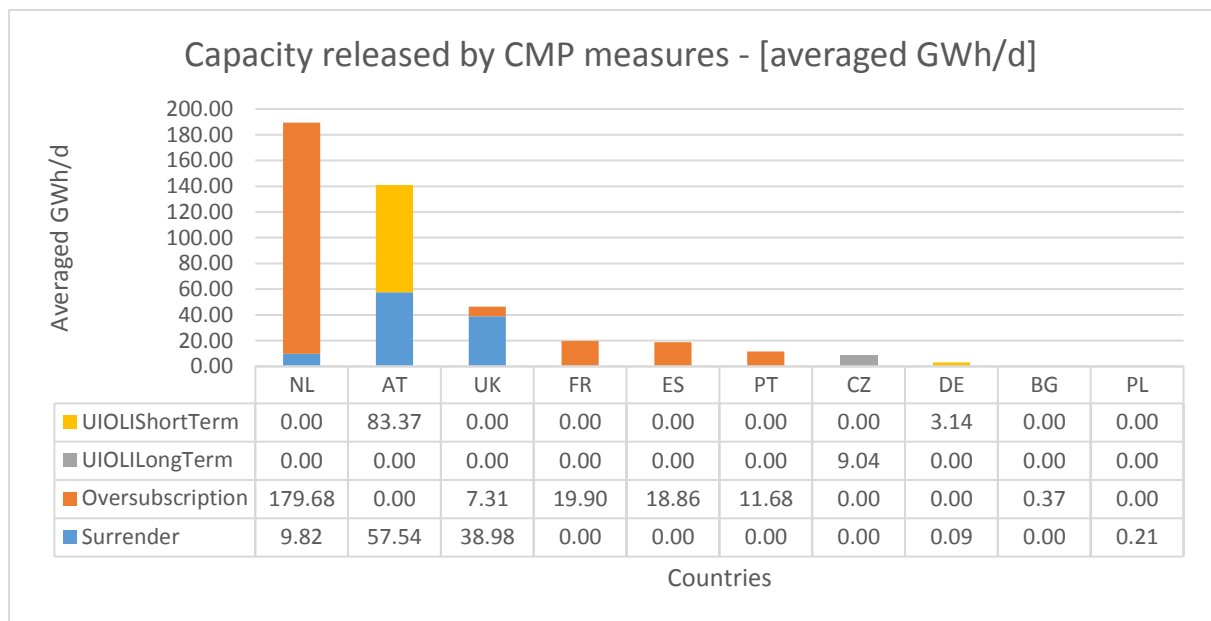
<sup>25</sup> GRTgaz\_Liaison Nord Sud\_21Z000000000166L\_exit\_and GTG\_Bunde (DE) / Oude Statenzijl (L) (NL) (GTG Nord)\_21Z000000000079G\_entry\_GTS

- (61) Nevertheless, with 5<sup>26</sup> IP sides out of 31, the number of congested IP sides for which secondary capacity was traded remained relatively low.
- (62) The most traded products on IP sides labelled as congested on PRISMA can be found on TAG GmbH Arnoldstein (AT) / Tarvisio (IT) 21Z000000000004A exit to SNAM RETE GAS, with eight traded products, followed by GASCADE Bunde (DE) / Oude Statenzijl (H) (NL) exit to GTS with five traded products.

#### 7.4 Application of CMPs

- (63) Ten Member States reported capacity amounts made available via CMPs, while in 2017 and 2016 there were 11 and 7 Member States reporting such amounts, respectively. The Agency calculated the occurrences by counting on how many days the application of CMPs took place. A predominant increase of surrender and oversubscription has been observed in 2018, compared to the last year, while LT UIOLI was again only reported in the Czech market.
- (64) In comparison to the previous Report, the Austrian market has increased the volume of the surrendered capacity, as well the volumes offered by FDA UIOLI.
- (65) Figure 2 shows the results in 2018 per Member State<sup>27</sup> and per CMPs applied:

Figure 2: Capacity released by CMP measures [averaged GWh/d] via CMPs in the EU (according to ENTSOG's TP data) – 2018 (GWh/d)



- (66) After the year 2016, when no LT UIOLI was implemented, and some application in 2017, the LT UIOLI was used more frequently in 2018, with an overall use for 905 days altogether for all IP sides.
- (67) The (daily) instances of FDA UIOLI remained limited to the German and Austrian IP sides, but have increased compared to the previous year (~15000 days). Most of the reported FDA UIOLI offers – in terms of capacity amounts – occurred at the borders of Austria, differently from the previous year,

<sup>26</sup> GASCADE\_Bunde (DE) / Oude Statenzijl (H) (NL) (GASCADE)\_21Z000000000074Q\_exit\_GTS; GCA\_Oberkappel\_21Z000000000001G\_entry\_GRTD; TAG GmbH\_Tarvisio (IT) / Arnoldstein (AT)\_21Z000000000004A\_exit\_SNAM RETE GAS; Transgaz\_Csanadpalota\_21Z000000000236Q\_exit\_FGSZ

<sup>27</sup> The Portuguese NRA clarified that the capacity made available through the OSBB mechanism was never allocated to market agents because the available firm technical capacity was never fully booked.

when the NCG market area had the largest capacity amount released by FDA UIOLI. Although Austria has reported significantly higher FDA UIOLI capacity amounts, the number of occurrences are similar to the NCG market and both have over 9000 days of occurrences of application of the FDA UIOLI in 2018.

- (68) The extent of application (the number of instances in days) of oversubscription has levelled with the number of occurrences in 2017; almost 85% of the reported applications, still concern IP sides of the Dutch TSO, GTS.
- (69) The number of days for which capacity products were surrendered during 2018 for use in that year increased four times compared to the level in 2017. In 2018, the majority of products and amounts were surrendered at Austrian IP sides, followed by the UK.

## ANNEX 1: Methodology of defining congested IP side

- (70) To assess the existence of contractual congestion, auction reports – covering the period from January 2018 to December 2018 – were downloaded from the booking platforms’ websites, consolidated, filtered and arranged for the relevant data.
- (71) The list of CMP-relevant IP sides is continuously checked and updated. However, before the analysis started, the CAM and CMP relevance of the IP points was compared to last year’s and changes to the list have been discussed with the TSOs and ENTSOG. Only the IP points that are CAM and CMP relevant were considered for the congestion analysis.
- (72) For this year’s Report, 364 IP sides were considered CAM-relevant, based on the feedback from the TSOs. This is two IP sides fewer than last year, when the Agency took into account 366 IP sides for the analysis. The Agency is of the view that the small difference in CAM-relevant points does not represent an important change. The composition of IP sides changed slightly from 2017 to 2018. Namely, the new Baltic IP sides<sup>28</sup> were included in the list, next to the newly created IP sides<sup>29</sup> elsewhere in the EU and a few IP sides<sup>30</sup> disappeared, as they were virtualized in the meantime
- (73) Each IP side of the updated NC CAM / CMP IP scope list was attributed a unique ID constructed from TSO, IP name, IP’s EIC, direction, connected TSO.
- (74) Based on the unique IDs, reports were screened for those auctions at IPs where total capacity demand exceeded the offer and/or where auction premia occurred for monthly/quarterly/yearly products. Products with an auction premium at a specific IP side (or bundle) (unique ID) were listed in the results table, created on the basis of the updated NC CAM / CMP IP scope list.
- (75) All consolidated auction reports were screened, IP by IP, for the offer and non-offer of capacity products of at least one-month duration for the analysed period. The analysis focused on the offer and non-offer of firm bundled products, followed by the non-offer of the unbundled firm entry or exit products.
- (76) Where no firm product offers were found in auctions held in 2018, the IP side was marked as “congested due to non-offer”.
- (77) For all IP sides, the offer of interruptible products was checked and recorded in the analysis.
- (78) Virtual reverse-flow IP sides were identified based on the ENTSOG list of CAM-relevant IP sides, previous congestion analyses and information from TSOs.
- (79) All available CMP data on unsuccessful requests, capacity made available through CMPs, auction premia and non-availability of products stemming from ENTSOG’s TP CMP export file were added to the results table, as they may signal congestion.
- (80) In line with the criteria set out in paragraph 2.2.3(1) of the CMP GL, the IP sides for which auction premia and/or non-offer of firm products occurred were labeled as “contractually congested” in the results table. The reason for congestion was recorded as well. If auction premia occurred at a lower frequency than indicated in the CMP GL, the IP side was marked as “close to be congested”, following the practice of the previous congestion reports. The IP sides for which only the yearly

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<sup>28</sup> Conexus Baltic Grid JSC Incukalns, Elering Karksi (entry and exit)

<sup>29</sup> VIP Brandov-GASPOOL, Vitzeroda MÜP

<sup>30</sup> Blaregnies (BE) / Taisnières (H) (FR) (Segeo/Troll) and Alveringem

product for the gas year 2019/20 was not offered, were labeled as “formally congested”<sup>31</sup>, following again the practice of previous reports. The remaining IP sides were considered “not congested”.

- (81) Additionally, where available, the products (monthly, quarterly, yearly) traded on the secondary market were added to the results table. Also, non-standard products were recorded together with traded volume.
- (82) The result table also includes the occurrences of premia in the day-ahead auctions, as the congestion in the day ahead market could signal additional issues of congestion at the IP side.
- (83) At the end, the use of the interruptible capacity is incorporated for quarterly and yearly products traded in 2018, presenting whether the congestion of firm capacities is reflected in the use of interruptible capacities, increasing their importance.
- (84) With the purpose of assessing the development of congestion over time, the results of previous analysis is included in the results table.

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<sup>31</sup> Some TSOs did not offer gas yearly products beyond the following Gas Year or the Yearly capacity product for 2017/18 could not be offered due to the short-term “quota” obligation (i.e. capacity set aside according for short-term use pursuant to Article 8 (7)(b) of NC CAM). It should be noted that the amended NC CAM (Commission Regulation (EU) 2017/459) obliges the TSOs to offer at least the upcoming 5 Gas Years from July 2018 on, concerning yearly products as of the Gas Year 2018/19.



Operator	Point	Connected Operators	Direction	Preliminary status of Congestion	Preliminary reason for congestion	Interruptible offered	UIOLIL LT	UIOLIL ST	Oversubscription	Surrender	Unsuccessful request	DA Auctions: No of PREMIA occurrences	Has this IP side been (indicatively) contractually congested in Q4/13 ?	Congested in 2014?	Congested in 2015?	Congested in 2016?	Congested in 2017
Fluxys TENP GmbH	Eynatten 2 (BE) // Lichtenbusch / Raeren (DE)	Fluxys Belgium	entry	CONGESTED	DUE NON OFFER												CONGESTED
GASCAD E	Bunde (DE) / Oude Statenzijl (H) (NL) (GASCADE)	GTS	exit	CONGESTED	PREMIA	YES		YES									NOT CONGESTED
GASCAD E	Kienbaum	OGE	exit	CONGESTED	DUE NON OFFER			YES					CONGESTED	CONGESTED	CONGESTED	CONGESTED	CONGESTED
GCA	Mosonmagyaróvár	FGSZ	exit	CONGESTED	PREMIA	YES		YES		YES						FORMALLY CONGESTED	FORMALLY CONGESTED
GCA	Oberkappel	GRTD	entry	CONGESTED	PREMIA	YES		YES		YES		YES				FORMALLY CONGESTED	FORMALLY CONGESTED
GCA	Überackern SUDAL (AT) / Überackern 2 (DE)	bayernets	entry	CONGESTED	PREMIA	YES		YES				YES	CONGESTED	CONGESTED	CONGESTED	FORMALLY CONGESTED	CONGESTED
GRTD	Oberkappel	GCA	exit	CONGESTED	PREMIA	YES		YES				YES	CONGESTED		CONGESTED	close	CONGESTED
GTG	Bunde (DE) / Oude Statenzijl (L) (NL) (GTG Nord)	GTS	entry	CONGESTED	PREMIA	YES		YES			YES	YES					CLOSE TO BE CONGESTED
GUD	Bunde (DE) / Oude Statenzijl (H) (NL) (GUD)	GTS	exit	CONGESTED	PREMIA	YES		YES									NOT CONGESTED
GUD	Dornum (EPT1 & EPT2)	Gassco	entry	CONGESTED	DUE NON OFFER	YES								CONGESTED		FORMALLY CONGESTED	NOT CONGESTED
GUD	Greifswald	Nord Stream	entry	CONGESTED	PREMIA	YES										FORMALLY CONGESTED	FORMALLY CONGESTED
JGT (TSO)	Dornum (EPT1 & EPT2)	Gassco	entry	CONGESTED	DUE NON OFFER												NOT CONGESTED
LBTG	Greifswald	Nord Stream	entry	CONGESTED	DUE NON OFFER								CONGESTED	CONGESTED	CONGESTED		NOT CONGESTED
TAG GmbH	Tarvisio (IT) / Arnoldstein (AT)	SNAM RETE GAS	exit	CONGESTED	PREMIA	YES		YES		YES	YES	YES					FORMALLY CONGESTED
Transgaz	Csanádapalota	FGSZ	exit	CONGESTED	PREMIA											FORMALLY CONGESTED	NOT CONGESTED
Transgaz	Negru Voda II, III (RO) / Kardam (BG)→Negru Voda II (RO) / Kardam (BG)	BTG	exit	CONGESTED	DUE NON OFFER								CONGESTED	CONGESTED	CONGESTED		NOT CONGESTED
Transgaz	Negru Voda III (RO) / Kardam (BG)	BTG	exit	CONGESTED	DUE NON OFFER												NOT CONGESTED
TIGF	VIP PIRINEOS	Enagas	exit	CONGESTED	PREMIA				YES		YES	YES	0	0	no	CONGESTED (bundle)	NOT CONGESTED



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