

# First ENTSOG Report on Implementation Monitoring and Baseline for Effect Monitoring of the Tariff Network Code



MARCH 2018



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# 1

# Opening Remarks



Image courtesy of TIGF

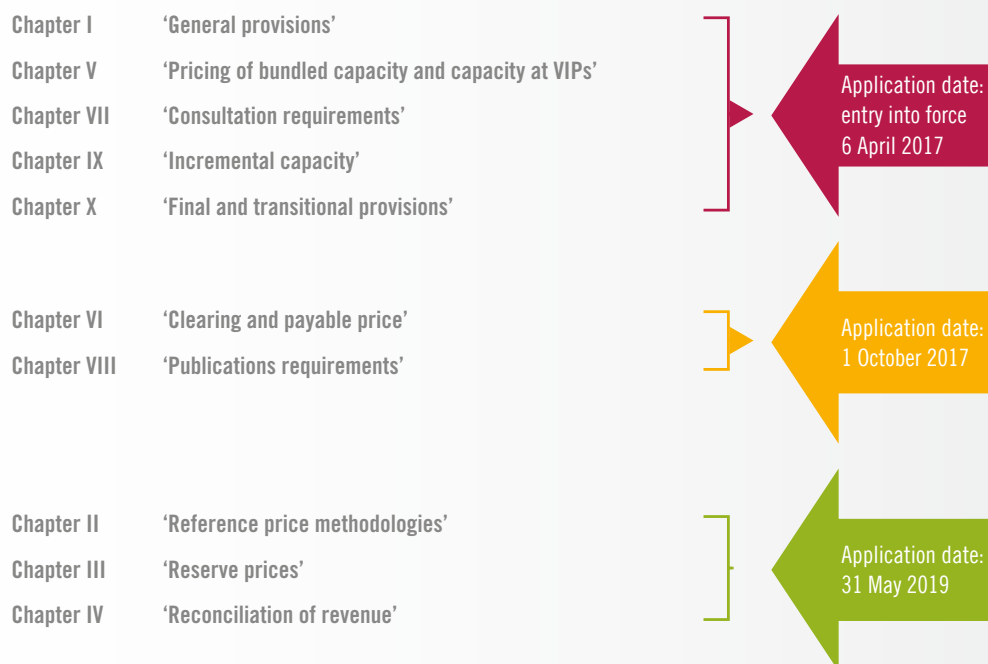


# TAR NC and its Applicable Dates

The Network Code on Harmonised Transmission Tariff Structures for Gas ('TAR NC') was developed as per the process set out in Article 6 of 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 ('Gas Regulation'), which involved the European Network of Transmission System Operators for Gas ('ENTSOG'), the Agency for the Cooperation of Energy Regulators ('ACER'), the European Commission ('EC') and other market participants.

The aim of the TAR NC is to further harmonise the principles laid down in the Gas Regulation, in particular the ones set out in Articles 13, 14(1)(b) and 14(2). Thus, the TAR NC contributes to achieving tariffs, or methodologies used to calculate them, which are transparent, take into account the need for system integrity and its improvement, reflect the actual cost incurred, non-discriminatory, facilitate efficient gas trade and competition, avoid cross-subsidies between network users and provide incentives for investment. The TAR NC was published in the Official Journal of the European Union on 17 March 2017 and entered into force on 6 April 2017.

The TAR NC foresees three different application dates ('ADs') for its different chapters, as shown in Figure 1:



**Figure 1:** TAR NC application dates





# Rationale and Time Reference for this Report

This report consists of two parts: Implementation monitoring ('IM') and effect monitoring ('EM') which echoes the requirements of the Gas Regulation. In particular, Article 8(8) of the Gas Regulation requires ENTSG to *'monitor and analyse the implementation of the network codes and the Guidelines adopted by the Commission in accordance with Article 6(11), and their effect on the harmonisation of applicable rules aimed at facilitating market integration'*. This Article also requires ENTSG to *'report its findings to the Agency and [...] include the results of the analysis in the annual report'*.

In addition, the TAR NC outlines some specific requirements. In particular, Article 36 'Implementation monitoring' of the TAR NC contains specific provisions related to the IM: it sets the deadline of 31 December 2017 for the transmission system operators ('TSOs') to submit the required information to ENTSG. ENTSG must submit their monitoring report to ACER by 31 March 2018. The TAR NC does not contain specific provisions related to the EM.

Although this report is being published in 2018, it is the TAR NC **2017** report for both IM and EM. ENTSG has developed this report: (1) to monitor the **implementation** status of the TAR NC by TSOs, as of 31 December 2017; and (2) to monitor its **effects** on the European gas market, with EM 2017 covering data from 2013 to 2017 which will set a baseline for future TAR NC EM reports.<sup>1)</sup>

The information for this report was submitted to ENTSG in quarter four 2017, some additional information has been included based on data from quarter one 2018. An executive summary of this report will be included in ENTSG's annual report for 2018.



## TSO Participation

On 2 October 2017, ENTSG contacted TSOs from 26 out of the 28 EU Member States ('MS'), to collect the required information for this report: (1) from 23 MS where the TAR NC applies as of 6 April 2017 (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom); and (2) from three MS where a derogation is in place (Estonia, Finland, and Luxembourg). While the application of the TAR NC is mandatory in the 23 MSs above, it is only optional in the 3 MSs with a derogation. The remaining 2 MSs (Cyprus and Malta) do not have TSOs, therefore they were not contacted to take part in this report. Further information is set out in the 'Status of derogations from the TAR NC' section below.

In total 51 European TSOs from the above mentioned 26 MSs were contacted: the 45 ENTSG Members, the 2 Associated Partners, and 4 other European TSOs. Out of these 51 TSOs, three TSOs are from MSs with a derogation in place, as such no information was provided; and for two TSOs, as per their national regulatory framework, tariffs are calculated and published by a third TSO from the same MS who is responsible for tariff derivation – for this report, the information for these two TSOs is contained in the information sent by the third TSO.

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1) Regarding the publication and consultation provisions of the TAR NC: the IM part of this report covers past publication and future consultations, while the EM part of this report covers the future for both publications and consultations.

For **IM**, 46 TSOs replied and their information is included in this report. One TSO provided its own information and also the publication information for a transit pipeline they operate as an Independent System Operator, they have been counted as two separate TSOs, this is why there are 46 TSOs counted in the 'Publication requirements in 2017' section and 45 TSOs in the rest of the IM part of this report. For **EM** the number of TSOs taking part depends on the indicator, with a maximum of 45 TSOs per indicator, this information is provided per indicator in the EM part of this report.

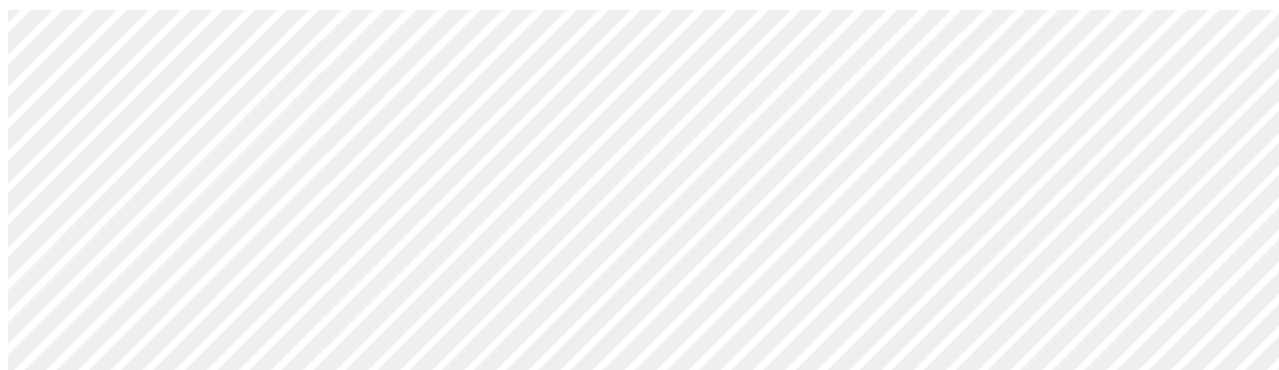
For a full list of participating TSOs, please see Annex A.



## Status of Derogations from the TAR NC

Article 2(2) specifies that the TAR NC does not apply in MS that hold a derogation in accordance with Article 49 'Emergent and isolated markets' of Directive 2009/73/EC ('Gas Directive'). Article 2(2) echoes Article 30 of the Gas Regulation, which exempts the applicability of the Gas Regulation to MSs for as long as they hold such a derogation. Like all the other network codes, the TAR NC supplements the Gas Regulation, and forms an integral part of it, so if the Gas Regulation does not apply, neither does the TAR NC. Malta, Cyprus, Finland, Estonia and Luxembourg currently have derogations.

- ▲ Malta and Cyprus will not be affected by the TAR NC if they remain isolated markets without a gas transmission system.
- ▲ Luxembourg holds a derogation according to Article 49(6) of the Gas Directive, which refers to its Article 9 on unbundling of transmission systems and TSOs.
- ▲ Finland's derogation will end on 1 January 2020 based on the new Natural Gas Market Act and market opening.
- ▲ Estonia currently benefits from a derogation until 2020, but it may open its natural gas markets in the near future. Even though Estonia holds a derogation, due to national law they must still implement certain aspects of the Gas Regulation, including transparency features. For this reason, they plan on implementing the TAR NC, although their implementation will be on a later timeline compared to the MSs who do not hold a derogation.
- ▲ Latvia had a derogation up until April 2017, the 2017 IM and EM report will capture the TAR NC implementation in Latvia for the first time.
- ▲ Article 49 of the Gas Directive mentions Lithuania, but Lithuania did not and does not hold a derogation.





## 2 Executive Summary





This monitoring report 2017 provides the status of the implementation of the TAR NC by European TSOs and its effect on the European gas market, as of 31 December 2017. Information was collected by ENTSG from European TSOs by questionnaire (for the IM part) and survey (for the EM part), the information is analysed in this report and conclusions drawn.

**The IM part of this report** covers the publication requirements the TSOs had in 2017, at what stage the TSOs are in their preparation for the 'final' consultation, and any 'intermediate' consultation that was or is to be carried out. ENTSG also included other information in the IM part of this report: application of the 'limited scope' rules at points other than IPs, introduction of the TAR NC definitions, the TSOs plans for the auction premium from the sale of bundled capacity, and plans, if any, to change their arrangements in relation to offering floating or fixed payable price, sending information to the National Regulatory Authorities ('NRAs') on 'exiting contracts', and derogation applications by interconnector operators. The IM part of the report is structured per the provisions listed above, which generally reflects the workload the TSOs had with the TAR NC implementation in 2017.

From analysing the responses TSOs provided to the IM questionnaire, we can conclude that the 40 of the 46 TSOs taking part have published the information they should as per the TAR NC. For a very small number of TSOs this is still a work in progress, and in a number of cases user-friendliness and the non-use of English should be addressed. For the consultation process, even though for the majority of cases it is the NRA who is responsible, the respective TSOs have contributed towards the preliminary work for 2018, attending meetings and providing documents where needed.

About a quarter of TSOs identified key challenges they are/or will face with the implementation of the TAR NC. For example, the application of the capacity weighted distance methodology ('CWD') in multi-TSO entry-exit zone, implementing the TAR NC for an entry-exit zone covering more than one MS or the classification of transmission and non-transmission services. Many have already identified solutions to these challenges and for the rest it is work in progress.

**The EM part of this report** constitutes a baseline study for the coverage of the effects of the TAR NC on the European gas market. The 5 indicators include: revenue recovery for TSOs, tariff changes, the profile of capacity bookings, publication in English, and the level of short-term multipliers. All EM indicators aim to analyse the data covering the latest years available, except for the indicator on publication in English which focuses on the future consultations to take place before 31 May 2019 as set out in the TAR NC and future publications.

The results collected from TSO responses provide the baseline for the measurement of the effects of the TAR NC in future years. They show that for most European TSOs the tariff changes are generally moderate year-on-year, capacity bookings are mostly based on yearly products – even though a trend towards short-term products may exist – and short-term multipliers are very often in the allowed ranges set out by the TAR NC. In terms of revenue recovery, it is too early to draw any conclusion on the effect of the TAR NC. And regarding publication in English, many TSOs indicated that an English version would be available for information on yearly auctions and tariff periods, while the decisions of NRAs as to English versions will be key for other information. Overall, TSOs are already often compliant with the TAR NC provisions for the range of parameters or transparency of information.

This EM baseline report should not be read or interpreted as the result of the TAR NC application but as a picture of the current and previous years. In future years, it will be possible to measure the full effects of the TAR NC, especially by comparing future EM reports to the current one.



# 3 Implementation Monitoring



Image courtesy of Infrastrutture Trasporto Gas



## 3.1 Introduction

This part of the report gives an analysis and draws conclusions about the implementation of the relevant provisions of the TAR NC that TSOs need to implement in 2017.

### 3.1.1 INFORMATION SOURCES AND DATA COLLECTION

ENTSOG collected the information for the TAR NC IM from 46 TSOs from the 23 EU MS where the TAR NC applies. The information was collected by means of a questionnaire. The questionnaire was evidence based where possible, the TSOs were asked to provide links to published information or other supporting data to back up their answers.

Article 36 'Implementation monitoring' of the TAR NC states: '*ENTSOG shall ensure the completeness and correctness of all relevant information to be provided by transmission system operators*'. For ENTSOG, this means that all the relevant information is published consistently as per the TAR NC, which entails: consistency checks that the information published on the TSOs website and on ENTSOG's Transparency Platform corresponds to the requirements as set out in the TAR NC; that the links provided on ENTSOG's Transparency Platform lead to the information on the TSOs website required by the TAR NC; and that the information provided on the TSOs website and on ENTSOG's Transparency Platform corresponds to the relevant gas year and tariff period. Ensuring that all individual data items are right remains a responsibility for the relevant NRAs as part of NRAs obligation to ensure TSOs compliance with their obligations.

### 3.1.2 SCOPE

The relevant provisions of the TAR NC TSOs have to comply with in 2017 that fall under the first two application dates, are:

(1) AD 1 – Chapter I 'General provisions', Chapter V 'Pricing of bundled capacity and capacity at virtual interconnection points', Chapter VII 'Consultation requirements', Chapter X 'Final provisions';

(2) AD 2 – Chapter VI 'Clearing price and payable price', Chapter VIII 'Publication requirements'.

#### Application Date and Compliance

Although all Chapters have specific ADs, the TAR NC allows for compliance at a later date for some provisions within these Chapters. For example, the AD for Chapter VIII 'Publication requirements' is 1 October 2017, however, compliance with the publication of **all** Article 29 information is not until before the annual capacity auctions, which will be in 2018 for the first time. Some Article 29 information items will be published in 2017 as per 'early compliance', this will be explained further in the 'Publication requirements' and 'Publication requirements in 2017' sections, below. Even though the AD is in 2017, compliance is later, for this reason, not all provisions from the Chapters listed above are covered in this report.

Further explanation of what is covered in the IM part of this report is provided below.



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## Publication Requirements

The implementation of **Chapter VIII ‘Publication requirements’** forms the largest amount of work the TSOs need to do for the implementation of the TAR NC in 2017, as such it forms the bulk of the IM part of this report.

To ensure additional transparency for stakeholders and easy accessibility of the applicable tariffs, for 2017 it was decided to publish some information earlier than was envisaged. This was called **‘early compliance’** publication and will also be covered in the IM part of this report.

For further information please see the ‘Publication requirements in 2017’ section below.

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## Other Requirements Covered in this Report

Although the 2017 monitoring obligations under the TAR NC Article 36 ‘Implementation monitoring’ only covers Chapter VIII ‘Publication requirements’, it was decided to include all provisions TSOs must implement and comply with in 2017, this also covers the TAR NC rules from AD 1, coinciding with the entry into force. This gives a more accurate and complete representation of the work TSOs are doing in 2017 to implement the TAR NC, and their preparation for implementation in 2018. The Chapters listed in the paragraphs below are in the order they are covered in the IM part of this report.

The information collected on **Chapter VII ‘Consultation requirements’** relates to the stage of preparation for the final consultation process, carrying out ‘intermediate’ consultations<sup>2)</sup>, if any, use of the consultation template developed by ACER and the publication of consultation documents in English to the extent possible.

Information collected for **Chapter I ‘General provisions’**, includes Article 2 ‘Scope’, covering the ‘limited scope’ rules applied at (1) points with third countries and (2) points other than interconnection points (‘IP’s’) and other than points with third countries. And Article 3 ‘Definitions’ covering the definitions that need to be applied in 2017.

The information collected for **Chapter V ‘Pricing of bundled capacity and capacity at virtual interconnection points’** only covers the plans for the attribution of the auction premium from the sale of bundled capacity as this is all the TSOs are required to do for this Chapter in 2017.

**Chapter VI ‘Clearing price and payable price’** is applicable as from AD 2 but compliance for TSOs is not until before the capacity auctions 2018. Even so, information was collected on this Chapter regarding TSO plans to change their current arrangements related to offering floating and fixed payable price.

The information collected for **Chapter X ‘Final and transitional provisions’** covers Article 35 ‘Existing contracts’ which will determine, where applicable for TSOs, if the relevant information has been sent to their NRA, and Article 37 ‘Power to grant derogations’ looking at entities operating interconnectors if they have applied for a derogation and whether it has been granted.

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2) ‘Intermediate’ consultations can be carried out in the nine months between the TAR NC entry into force on 6 April 2017 and estimated start date of December 2017 for preparing the final consultation document. The TAR NC is flexible with respect to ‘intermediate’ consultations: there can be one consultation on all the elements of Article 26(1) or multiple consultations on specific elements of Article 26(1). The TAR NC is also open about the number and format of the ‘intermediate’ consultations, which are only optional.

## Possible TSO Answers

The questions were structured to allow the TSO to answer 'yes', 'no', 'non-applicable' or 'NRA responsibility', followed by a text box to provide additional or clarifying comments. For Article 29 'Information to be published before the annual yearly capacity auction' and Article 30 'Information to be published before the tariff period' in Chapter VIII 'Publication requirements', and Article 26 'Periodic consultation' and Article 27 'Periodic national regulatory authority decision-making' in Chapter VII 'Consultation requirements' the responsibility for these provisions could either be with the NRA or the TSO, as decided by the NRA. As this report only covers the implementation of the TAR NC by TSOs, not NRAs, in the MSs where the responsibility for a certain provision is with the NRA, the TSO could answer 'NRA responsibility' in the information collection questionnaire and move on to the next question. They also had the opportunity to answer, 'NRA responsibility' and provide information on recent developments and any interaction they had with their NRA on these provisions, such as sharing documents or related information. The TSO could also answer 'Non-applicable' for certain questions that were not relevant to them, for example, a question on seasonal factors could be answered 'Non-applicable' if the TSO does not apply seasonal factors.



Image courtesy of Gascade

## 3.2 Analysis of Responses

This section has been structured per the workload that the TSOs have for implementation of the TAR NC in 2017, and not in the order of the Articles in the TAR NC. The section starts with the 'Publication requirements in 2017' as this was the most significant piece of work the TSOs had for implementing the TAR NC in 2017.

### 3.2.1 PUBLICATION REQUIREMENTS IN 2017

The publication requirements in 2017 vary between TSOs, depending on their tariff period. Some provisions should be implemented by all TSOs, some for the 27 TSOs who have a one-year January-December tariff period (**group A**) (from: CZ, DE, ES, GR, IT, LT, LU, NL, PL, SI), and some for the 19 TSOs whose tariff period is other than one-year or other than January – December (**group B**) (from: AT, BE, BG, DK, FR, GB, HR, HU, IE, NIR, PT, RO, SE, SK).<sup>3)</sup> For the 'Publication requirements in 2017' section all answers are broken down between 'group A', 'group B', and 'all TSOs'.

- ▲ As per the TAR NC, the TSOs or NRAs in group A should publish all information in Article 30, including the flow-based charge and simulation, for the new tariff period (1 January 2018 – 31 December 2018), a minimum of 30 days before the new tariff period.
- ▲ As per the 'early compliance' publication requirements, the TSOs or NRAs in group A and B should publish the reserve prices for the current gas year (1 October 2017 – 30 September 2018) by the end of 2017.
- ▲ As per the 'early compliance' publication requirements, group B TSOs or NRAs should also publish the revenue information, to be published according to Article 30(1)(b), and the flow-based charge, both for the current tariff period, by the end of 2017.

3) This results in 46 TSOs (from 23 MSs) whose responses have been analysed out of the total number of 51 TSOs (from 26 MSs) who have been contacted. For further information on the 5 TSOs not taking part, please refer to the section 'TSO participation' in 1. Opening remarks.

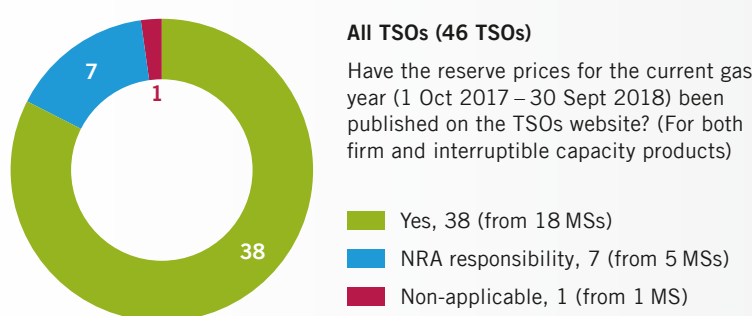


### 'Early Compliance' – Publishing Article 29 Information (reserve prices) on the TSOs Website

As per the 'early compliance' publication explained above, all TSOs must publish the reserve prices for the current gas year (1 October 2017–30 September 2018) on the TSOs website.

In 2018, TSOs will need to publish **all** information related to Article 29 for the first time, this will include the multipliers and seasonal factors applied to reserve prices for firm capacity products and the assessment of the probability of interruption for interruptible capacity products. Although TSOs did not have to publish the complete set of information as per Article 29, in 2017, many TSO did on a voluntary basis, which will be covered in the 'Responses' section below.

### Responses



**Figure 2:** Publication of reserve prices for the current gas year on the TSOs website

- ➡ 38 TSOs have published the reserve prices for the current gas year (1 October 2017–30 September 2018) on their website.

Although the TAR NC or 'early compliance' do not require the additional information from Article 29 to be published in 2017, the majority of TSOs have published some or all of this information where it is applicable to them, or provided links to where this information is published on their NRAs website.

- ➡ For seven TSOs, responsibility for publishing the reserve prices is with their NRA. However, they have all either provided the reserve prices on their own website, or provided a link on their website to the information on their NRAs website.
- ➡ For one TSO, these publication requirements are non-applicable as they do not have an IP.

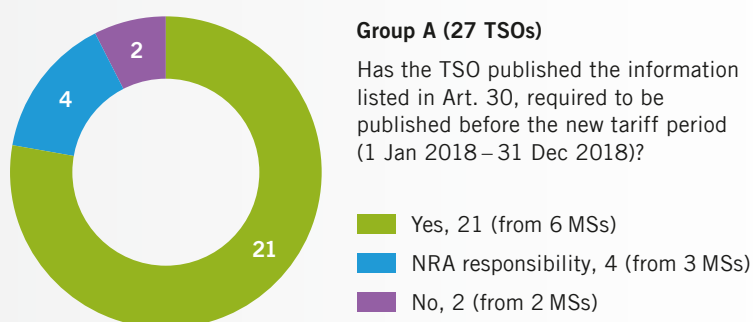
## ARTICLE 30 'INFORMATION TO BE PUBLISHED BEFORE THE TARIFF PERIOD'

### Overview of the Rule – Publishing Article 30 Information on the TSOs Website

All TSOs must publish all applicable information listed in Article 30 before their new tariff period, on the TSOs website. However, for this report, ENTSOG considered TSOs from group A as they were the only group of TSOs who had to publish the full list of Article 30 information in 2017. TSOs that change tariff period in 2018 will publish this information then and will be covered in a future monitoring report.

The information to be published for Article 30 can be broken down into four blocks: (1) methodology parameters related to technical characteristics of the transmission system; (2) TSO revenue information; (3) transmission and non-transmission tariffs which are not published before the annual yearly capacity auctions; and (4) additional information related to tariff evolution. Such information needs to be published for all points on the network.

### Responses



**Figure 3:** Publication of Article 30 information for the new tariff period

- ➔ 21 TSOs have published the Article 30 information for the new tariff period (1 January 2018–31 December 2018).

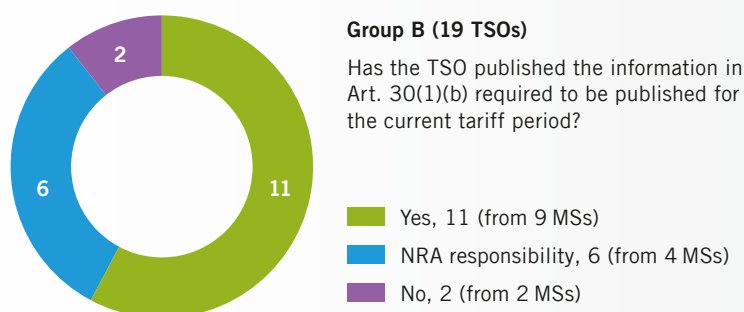
However, for a number of these TSOs some items were not published as they are non-applicable due to, for example, they did not apply flow-based charges, use incentive mechanisms or have an intra/cross-system split.

- ➔ For four TSOs it is the NRA who is responsible for publishing Article 30 information.
- ➔ Two TSOs have not published the Article 30 information. For one, due to an ongoing litigation concerning the new tariffs for 2018, the other will be applying for a derogation, the derogation decision will determine the scope of what is applicable for publication.

## 'Early Compliance' – Publishing Article 30(1)(b) Information on the TSOs Website

As per 'early compliance' publication requirements, TSOs from group B must publish the revenue information for the current tariff period on the TSOs website. The information to be published only covers the applicable revenue information according to Article 30(1)(b).

### Responses



**Figure 4:** 'Early compliance' publication of Article 30(1)(b) information, for the current tariff period

- ➡ 11 TSOs have published Article 30(1)(b) revenue information as per 'early compliance'.

However, for a number of these TSOs some items from this sub-Article were not published, for example, the capacity-commodity split, intra-system/cross-system split, inflation indices, incentive mechanisms and efficiency targets. The reasons provided by the TSOs for some of these items not being published was due to them being non-applicable to that particular TSO, some items not being available until the new tariff period or regulatory period, or not currently used for their tariff methodology.

- ➡ For six TSOs it is the NRA who is responsible for publishing Article 30 information.
- ➡ One TSO has not published the Article 30(1)(b) information as they have applied for a derogation, the derogation decision will determine the scope of what is applicable for publication. For the second TSO who have not published the Article 30(1)(b) information, their derogation expired in 2017 and the publication of this information is still a work in progress.

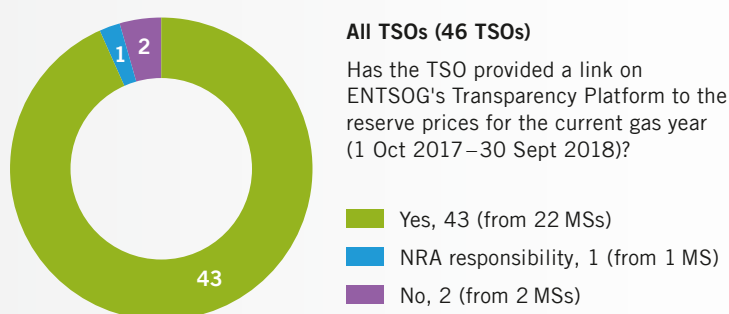


### 'Early Compliance' – Providing a Link on ENTSOG's Transparency Platform to the Reserve Prices

As per 'early compliance' publication, all TSOs must provide a link on ENTSOG's Transparency Platform to the reserve prices for the current gas year (1 October 2017–30 September 2018), as referenced in Article 29.

As per the TAR NC, the entity responsible for publication must provide the link on ENTSOG's Transparency Platform. In reality, it has been the TSO who has provided the link, even if the NRA is responsible for publication. All NRAs have left any publication on ENTSOG's Transparency Platform to the TSOs, except in one MS where a decision on publication is still to be made.

### Reponses



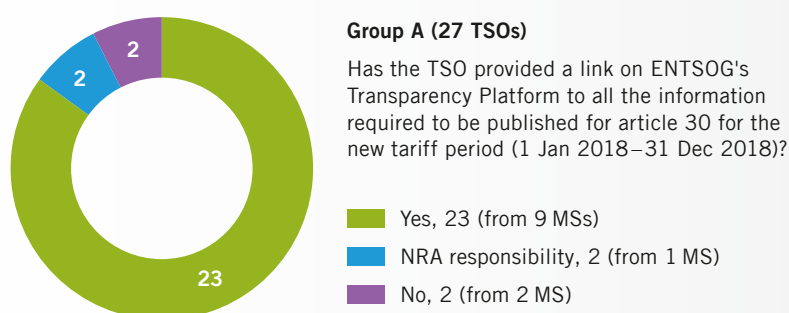
**Figure 5:** Providing the link on ENTSOGs Transparency Platform to the reserve prices, for the current gas year

- All but two TSOs have provided a link on ENTSOG's Transparency Platform to the reserve prices for the current gas year, whether this information was published on the TSOs website or the NRAs website.
- ➡ For one TSO no link has been provided as in that MS no decision has been made on who is responsible for publication, it has been recorded here as 'NRA responsibility'.
- ➡ For one TSO this is non-applicable as they do not have an IP, and the other TSO informed ENTSOG they will not be able to provide this link before the end of March.

## Overview of the Rule – Providing a Link on ENTSOG’s Transparency Platform to the Article 30 Information

Group A TSOs must provide a link on ENTSOG’s Transparency Platform to all information required to be published for Article 30 for the new tariff period (1 January 2018–31 December 2018).

### Responses



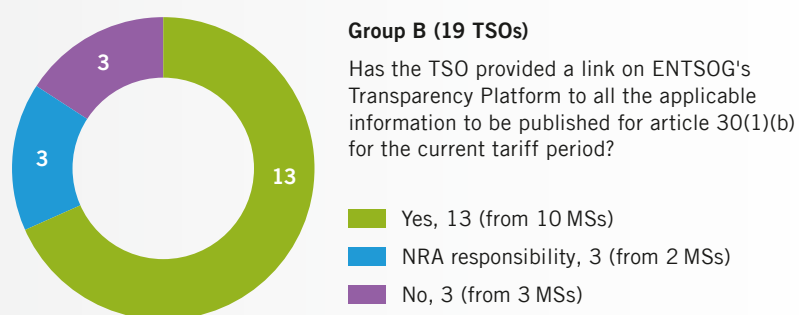
**Figure 6:** Providing the link on ENTSOGs Transparency Platform to all the Article 30 information, for the new tariff period

- ➡ 23 TSOs have provided a link on ENTSOG’s Transparency Platform to the information to be published for Article 30.
- ➡ Two TSOs answered, ‘NRA responsibility’ and have not published a link.
- ➡ Two TSOs have not provided the link as they do not have Article 30 information published. One will be applying for a derogation; the derogation decision will determine the scope of what is applicable for publication. For the other TSO, although they have provided a link, there is no Article 30 information published due to an ongoing litigation concerning the new tariffs for 2018, this is explained when the link is clicked on.

## 'Early Compliance' – Providing a Link on ENTSOG's Transparency Platform to the Article 30(1)(b) Information

As per 'early compliance' publication, group B TSOs must provide a link on ENTSOG's Transparency Platform to all applicable information to be published for Article 30(1)(b) for the current tariff period.

### Responses



**Figure 7:** Providing the link on ENTSOG's Transparency Platform to the 'early compliance' Article 30(1)(b) information, for the current tariff period

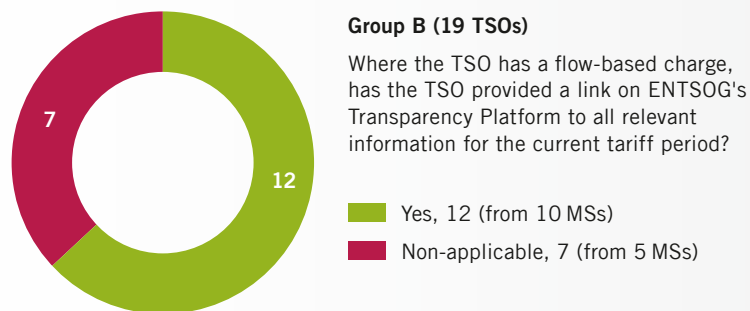
- ➡ 13 TSOs have provided the link on ENTSOG's Transparency Platform to the information published for Article 30(1)(b).
- ➡ For three TSOs it is the NRA who is responsible for publication, even so, the TSOs have still provided links to their NRA website.
- ➡ Three TSOs have not provided a link on ENTSOG's Transparency Platform, for one TSO it was due to a pending decision on a derogation application, for two TSOs, their NRA still needs to decide who will publish and provide a link to this information.



## **'Early Compliance' – Providing a Link on ENTSOG's Transparency Platform to the Information on Flow-based Charges**

As per 'early compliance' publication, group B TSOs with a flow-based charge must provide a link on ENTSOG's Transparency Platform to their own website with the relevant information for the current tariff period.

### **Responses**



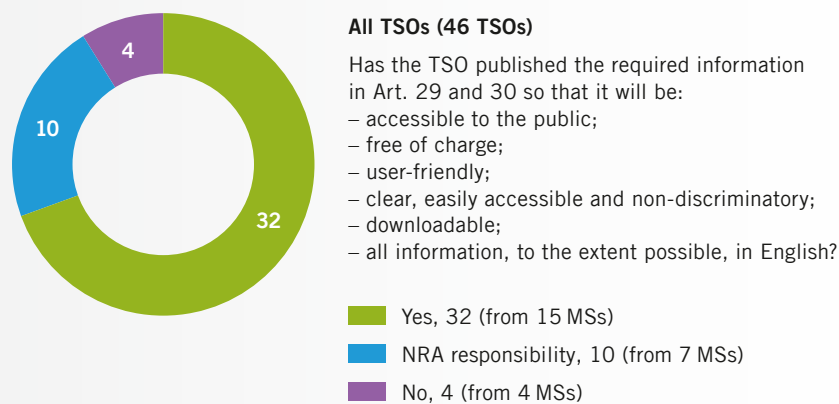
**Figure 8:** Providing the link on ENTSOG's Transparency Platform to the flow-based charge information for the current tariff period, as per 'early compliance'.

- ➡ 12 TSOs provided a link on ENTSOG's Transparency Platform to their flow-based charge information for the current tariff period.
- ➡ For the remaining TSOs this is non-applicable as they do not apply flow-based charges.

## Overview of the Rule – Format of Publication

All TSOs must publish the required information for Articles 29 and 30 so that it will be: accessible to the public; free of charge; user-friendly; clear, easily accessible and non-discriminatory; downloadable; and all information provided, to the extent possible, in English.

## Responses



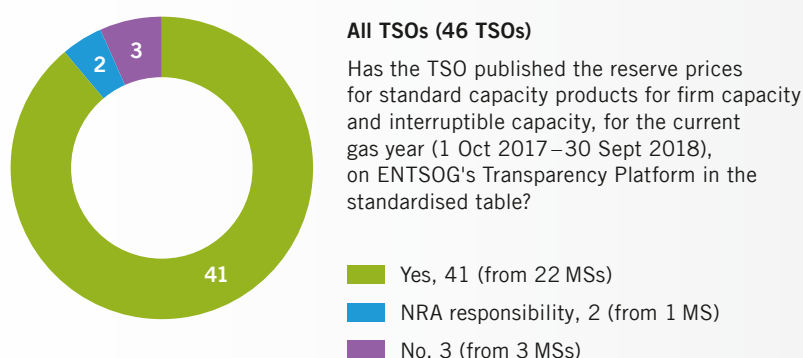
**Figure 9:** Publication format

- ➡ 32 TSOs have published the required information in Article 29 and 30 as set out in Article 31(1).
- ➡ For nearly a quarter of TSOs it is the NRA who has taken responsibility for publication. Even so, these TSOs have published the reserve prices and most have published the Article 30 information or provided a link to their NRAs website where this information can be found. They have done this as set out in Article 31(1).
- ➡ Some TSOs have not published the required information as set out in Article 31(1). For two TSOs this is due to a, or pending, derogation application which includes parts of Article 30. One TSO has not published all the required information in Article 29 and 30 due to an ongoing litigation on the new tariffs for 2018. 2017 tariffs will remain valid until the litigation is resolved and the TSO has published as much as it can in the circumstances. One TSO has not published Article 29 information as it does not have an IP, and although they have published the Article 30 information, it has not been published in English, which they are working to change in the near future.

### 'Early Compliance' – Publishing the Reserve Prices on ENTSOG's Transparency Platform in the Standardised Table

As per 'early compliance' publication, all TSOs must publish the reserve prices for standard capacity products for firm capacity and interruptible capacity, for the current gas year (1 October 2017–30 September 2018), on ENTSOG's Transparency Platform in the standardised table. The format and manner of publication in the standardised table are set out in the Article 31(3) section below.

### Responses



**Figure 10:** Reserve prices publication on ENTSOG's Transparency Platform in the standardised table, for the current gas year

- ➡ 41 TSOs have published the reserve prices for the current gas year on ENTSOG's Transparency Platform in the standardised table.

However, some of these TSOs did not publish for the entire gas year. Three published up until the end of their tariff period, but not after, as the tariffs for the new tariff period have not been approved by their NRA. One TSO has not published for the October to December 2017 period, only from the start of their tariff period in January 2018.

- ➡ For two TSOs, a decision on who publishes is yet to be made, they have been recorded here as 'NRA responsibility'. Nothing for these two TSOs has been published on ENTSOG's Transparency Platform in the standardised table.
- ➡ A further three TSOs have not published anything in the standardised table, due to it being non-applicable for one TSO, as they do not have an IP, and the two TSOs will add/update all their information on the Transparency Platform in 2018



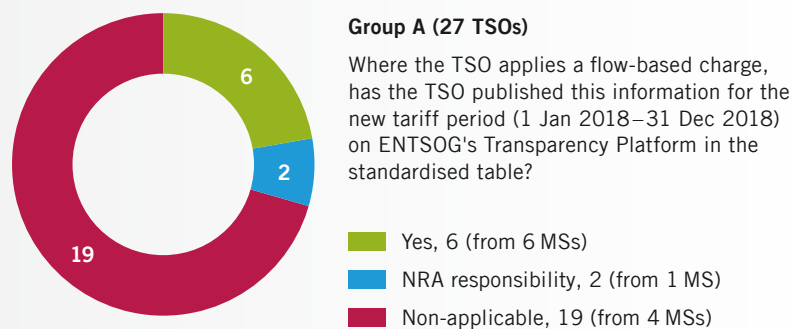
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## Overview of the Rule – Publishing the Flow-based Charge on ENTSOG's Transparency Platform in the Standardised Table

Group A, who are responsible for publication and apply a flow-based charge, must publish this information for the new tariff period (1 January 2018–31 December 2018) on ENTSOG's Transparency Platform in the standardised table.

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### Responses



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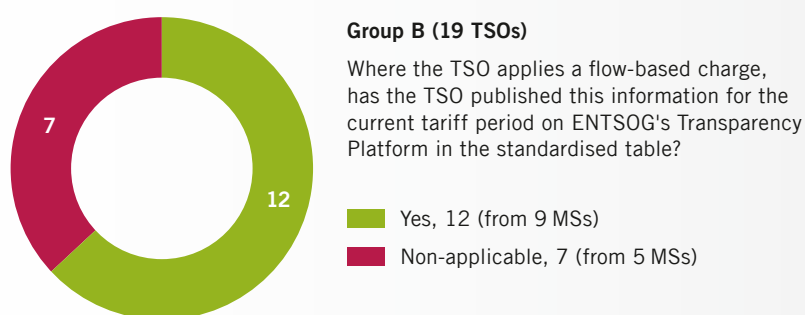
**Figure 11:** Flow-based charge publication on ENTSOGs Transparency Platform in the standardised table, for the new tariff period

- Six TSOs have published their flow-based charge on ENTSOG's Transparency Platform in the standardised table.
- ➡ For two TSOs, a decision on who publishes is yet to be made, they have been recorded here as 'NRA responsibility'. Nothing for these two TSOs has been published on ENTSOG's Transparency Platform in the standardised table.
- ➡ One TSO informed ENTSOG that they will not be able to provide this information before the end of March. For the remaining TSOs this is non-applicable as they do not apply flow based charges.

## 'Early Compliance' – Publishing the Flow-based Charge on ENTSOG's Transparency Platform in the Standardised Table

As per 'early compliance' publication, group B TSOs who apply a flow-based charge, must publish this information for the current tariff period on ENTSOG's Transparency Platform in the standardised table.

### Responses



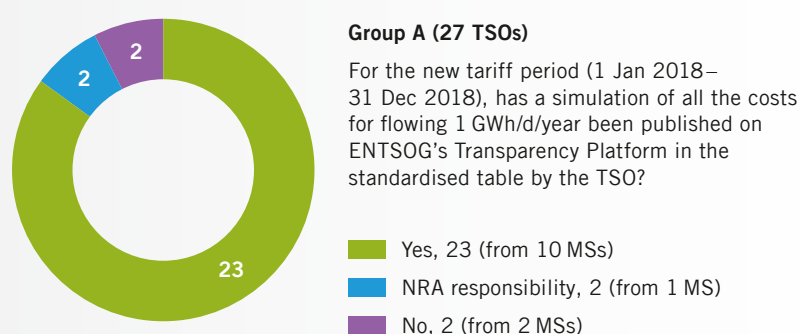
**Figure 12:** Flow-based charge publication on ENTSOG's Transparency Platform in the standardised table, for the current tariff period

- ➡ 12 TSOs have published the information for the flow-based charge for the current tariff period on ENTSOG's Transparency Platform in the standardised table.
- ➡ For the remaining TSOs in this group this is non-applicable as they do not apply flow-based charges.

## Overview of the Rule – Publishing the ‘Simulation’ on ENTSOG’s Transparency Platform in the Standardised Table

Group A TSOs must publish a simulation of all the costs for flowing 1 GWh/d/year for the new tariff period (1 January 2018–31 December 2018) on ENTSOG’s Transparency Platform in the standardised table.

### Responses



**Figure 13:** Simulation publication on ENTSOGs Transparency Platform in the standardised table, for the new tariff period

- ➡ 23 TSOs have published a simulation of all the costs for flowing 1 GWh/d/year for the new tariff period on ENTSOG’s Transparency Platform in the standardised table.
- ➡ For two TSOs a decision on who is to publish has not been made and is recorded here as ‘NRA responsibility’.
- ➡ Two TSOs have not published this information, both will add/update all their information on the Transparency Platform in 2018.



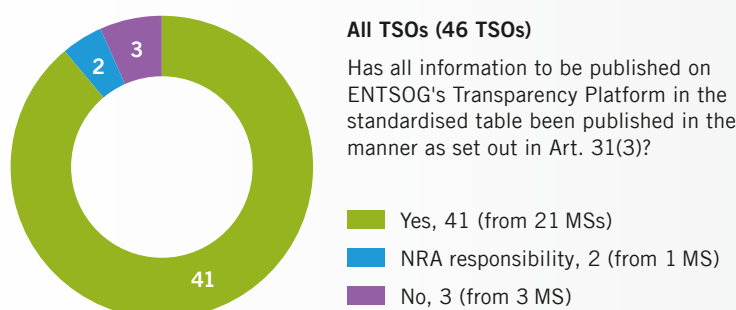
## 'FORM OF PUBLICATION', FORMAT OF PUBLICATION ON ENTSOG's TRANSPARENCY PLATFORM

## ARTICLE 31(3)

### Overview of the Rule

All TSOs must publish all the information on ENTSOG's Transparency Platform in the standardised table as set out in Article 31(3): in English; per IP; the direction of gas flow; the names of the relevant TSOs; the start and end time of the product; whether the capacity is firm or interruptible; the indication of the standard capacity product; and the applicable tariff per kWh/h and per kWh/d in the local currency and in euro.

### Responses



**Figure 14:** Manner of publication on ENTSOG's Transparency Platform in the standardised table

- ➡ 41 TSOs have published the required information on ENTSOG's Transparency Platform in the standardised table as set out in Article 31(3).

However, one has not completely published all the required information as what they will publish will be determined by a decision on a derogation application, and another TSO has not published a simulation of all the costs for flowing 1 GWh/d/year as technically they only have virtual counter-flow capacity products available.

- ➡ For two TSOs a decision on who is to publish has not been made and is recorded here as 'NRA responsibility'.
- ➡ Three TSOs answered 'no' as they have not published anything on ENTSOG's Transparency Platform in the standardised table, due to it being non-applicable for one TSO, as they do not have an IP, and two TSOs will add/update all their information on the Transparency Platform in 2018.

## ARTICLE 32(B) 'PUBLICATION NOTICE PERIOD', PUBLICATION OF INFORMATION PER ARTICLE 30

### Overview of the Rule – for One-year January–December Tariff Period

The deadline for publishing the information set out in Article 30 is no later than 30 days before the tariff period. As this monitoring report is for 2017, for this rule the report only covers group A TSOs. This rule will be applicable for the other TSOs in 2018, or in future years for TSOs with a tariff period more than one-year.

### Responses

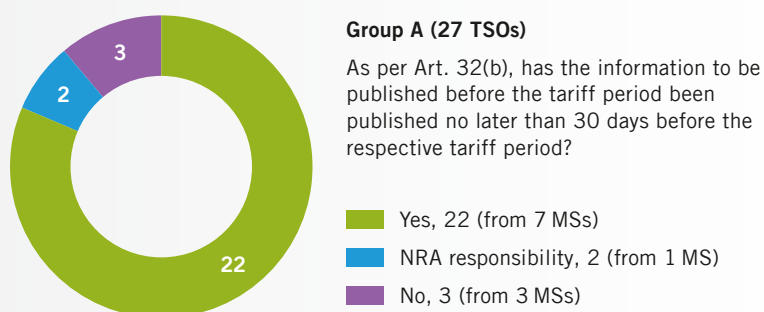


Figure 15: Publication notice period, before the new tariff period

➡ For the group A TSOs, 22 have published the required information no later than 30 days before the respective tariff period.

However, a small number TSOs were late publishing specific items of information, for example, for two TSOs the flow-based charge was not published on ENTSOG's Transparency Platform in the standardised table on time. The reason why these TSOs were late publishing specific items of information was due to internal IT issues or waiting on their NRA for decisions with regards to the new tariff period and publishing information.

➡ For two TSOs it is the NRA who has responsibility for all publication.

➡ For three TSOs that were late or did not publish the required information at all, one could not publish the information until January 2018 as the relevant NRA decision had not been officially published, one informed ENTSOG they will not be able to provide this information before the end of March and one is because of a pending litigation on the approval of new tariffs.

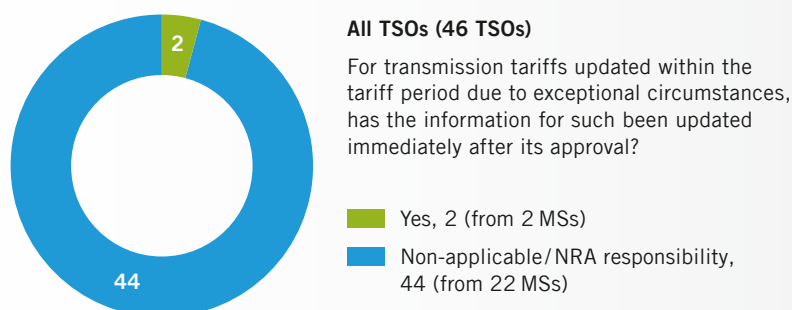
## 'PUBLICATION NOTICE PERIOD', PUBLICATION OF TRANSMISSION TARIFFS UPDATED WITHIN THE TARIFF PERIOD

## ARTICLE 32(C)

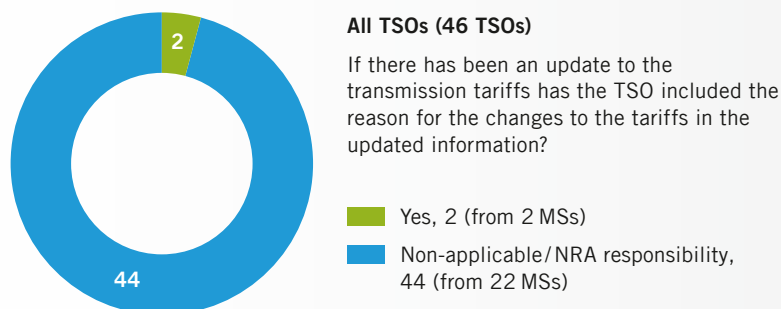
### Overview of the Rule

In exceptional circumstances, TSOs can update their transmission tariffs within the tariff period. If they do so, this information should be updated and published immediately after the NRA approval. Each update of the transmission tariffs must be accompanied by information indicating the reasons for the changes in their level.

### Responses



**Figure 16:** Publication of updated transmission tariffs due to exceptional circumstances



**Figure 17:** Publication of the reason for updated transmission tariffs due to exceptional circumstances

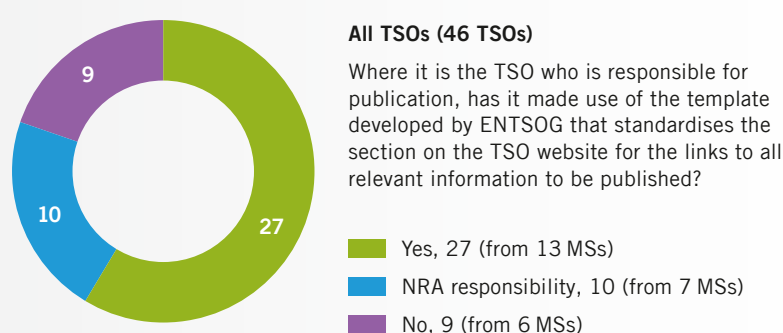
- ➡ Two TSOs, where the transmission tariffs have been updated within the tariff period due to exception circumstances, answered that they had updated the tariff information immediately after the approval of changes to tariffs and the reason for the tariff changes was included in the updated information.
- ➡ All but two TSOs answered 'Non-applicable' or 'NRA responsibility' when asked if they had updated the information on their transmission tariffs if the tariffs had changed within the tariff period due to exceptional circumstances. This was due to no updates being applied to the tariffs during the tariff period or it being an NRA responsibility.



## Additional Information

When publishing information for Article 29 and 30, before the annual yearly capacity auctions and before the tariff period respectively, ENTSOG suggests publishing this information in a template, in two sets, to facilitate identifying the publication requirements and the respective cross-reference to the Article, its paragraph and point as set out in the TAR NC. Information can be placed directly in the template or a link can be provided to another webpage with the required information. This will allow users to access the information in a clear, easily accessible and user-friendly manner, as set out in Article 31(1). ENTSOG has provided a template in its TAR NC Implementation Document ('IDoc')<sup>4)</sup> as an example for TSOs to use if they choose to do so.

## Responses



**Figure 18:** Use of template developed by ENTSOG for standardising the publication format

- ➡ 27 TSOs are using the template developed by ENTSOG and its members to publish the relevant information for Articles 29 and 30.
- ➡ For 10 TSOs, responsibility for publication is with the NRA.
- ➡ Several TSOs are not, or currently not, using the template, although four of these indicated they will use the template in the future. The remaining TSOs used a similar arrangement or have taken their own approach.

For several TSOs that did not use the template, it will be recommended to them to do so as it will make finding the relevant information on their website more user friendly.

For a list of links to the Article 29 and 30 information published on the TSO/NRA website and a guide to the information published on ENTSOGs Transparency Platform, please see Annex B.

4) [https://www.entsog.eu/public/uploads/files/publications/Tariffs/2017/TAR1000\\_170928\\_2nd%20Implementation%20Document\\_Low-Res.pdf](https://www.entsog.eu/public/uploads/files/publications/Tariffs/2017/TAR1000_170928_2nd%20Implementation%20Document_Low-Res.pdf) p. 245

### 3.2.2 CONSULTATION ACTIVITY IN 2017

#### 'PERIODIC CONSULTATION'

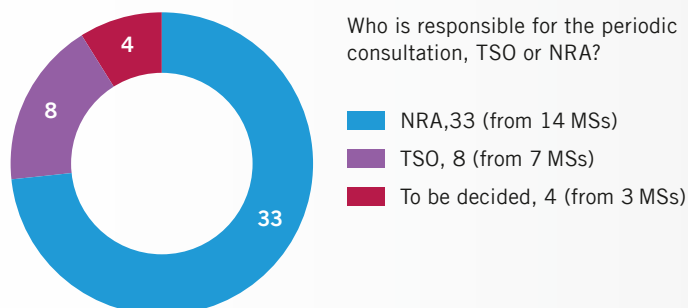
#### ARTICLE 26

##### Overview of the Rule

Article 26 'Periodic consultation' sets out that '*one or more*' intermediate consultations may be carried out, and a '*final*' consultation must be carried out, either by the NRA or the TSO, as decided by the NRA. The 'final' consultation will include all aspects of Article 26 'Periodic consultation', including any aspect already covered in an 'intermediate' consultation, if an 'intermediate' consultation was carried out. The final consultation covers the following provisions: proposed reference price methodology, revenue information, commodity-based and non-transmission tariffs, tariff changes and trends for standard capacity products, fixed payable price approach.

As for the deadline, the TAR NC state that '*the procedure consisting of the final consultation on the reference price methodology [...], the decision by the national regulatory authority [...], the calculation of tariffs on the basis of this decision, and the publication of the tariffs [...]* may be initiated as from the entry into force of this Regulation and shall be concluded no later than **31 May 2019**'.

##### Responses



**Figure 19:** Responsibility for the periodic consultation

- ➡ For 33 TSOs it is the NRA who has responsibility for consultation.
- ➡ For eight TSOs it is the TSO who has responsibility for consultation.
- ➡ For four TSOs it is still to be decided by the NRA who will be responsible for consultation.

## ➡ **Start of Consultation Process**

Of the TSOs with responsibility for the consultation process, three will start the process or preliminary work at the start of 2018. Half have started preparing for the consultation process, which mainly involves preliminary discussion with their NRA, preparing and defining the 'final' consultation document, and initial dialogue with the market. For one TSO with responsibility for the consultation process, it will depend on a derogation application that will determine the final scope of the applicable TAR NC provisions that will be covered in consultation.

## ➡ **'Intermediate' Consultation**

Two TSOs with responsibility for consultation have used 'intermediate' consultations. These 'intermediate' consultations were used by one TSO to discuss the TAR NC implementation process through 'Shipper Taskforce' meetings. The second TSO used a series of 'intermediate' consultations with stakeholders to discuss a modification proposal to amend their 'Gas Transmission Charging' regime to deliver compliance with the TAR NC. Both published their 'intermediate' consultations in English. For one TSO, the use of 'intermediate' consultations will depend on a derogation application that will determine the scope of the applicable TAR NC provisions that will be covered in consultation.

## ➡ **'Final' Consultation**

For 32 TSOs, it is the NRA who will carry out the 'final' consultation, however, the TSOs still have responsibilities in the process. They will have to provide the NRA with any documents or general information the NRA requests and some TSOs will participate in dedicated meetings related to the development of the consultation. Some TSOs will provide input to the consultation by providing implementation proposals, provide their position on topics the NRA is consulting on and carry out analysis, for example on the CWD, as is the case for two TSOs. For eight TSOs it has been decided that they will have responsibility for carrying out the 'final' consultation. For four TSOs a decision on responsibility has still to be made.

For a provisional timeline for the 'final' consultations and responsibility per MS, please see Annex C.

## ➡ **ACER's Consultation Template**

Of the TSOs who are responsible for the 'final' consultation, half have decided to use ACER's consultation template<sup>5)</sup>. Two have not decided whether to use the template or not, although one indicated that they most likely will. The use of ACER's template will depend on the outcome of a decision on a derogation application and what it will then consult on, for one TSO. A TSO, who will use their national standard template instead of ACER's, will include ACER's template as an appendix in the national template.

One TSO stated that they will use ACER's consultation template if the NRA decides that they are responsible for consultation.

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5) [http://www.acer.europa.eu/Official\\_documents/Public\\_consultations/Pages/ACER-Consultation-Template.-Tariff-NC-Article-26\(5\).aspx](http://www.acer.europa.eu/Official_documents/Public_consultations/Pages/ACER-Consultation-Template.-Tariff-NC-Article-26(5).aspx)



### 3.2.3 REMAINING PROVISIONS APPLICABLE IN 2017

#### 'SCOPE'

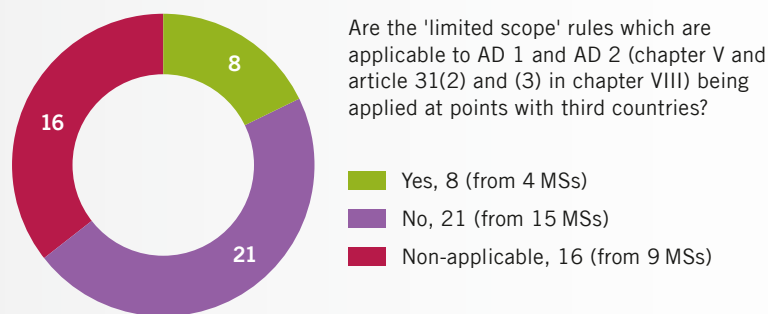
#### ARTICLE 2

##### Overview of the Rule

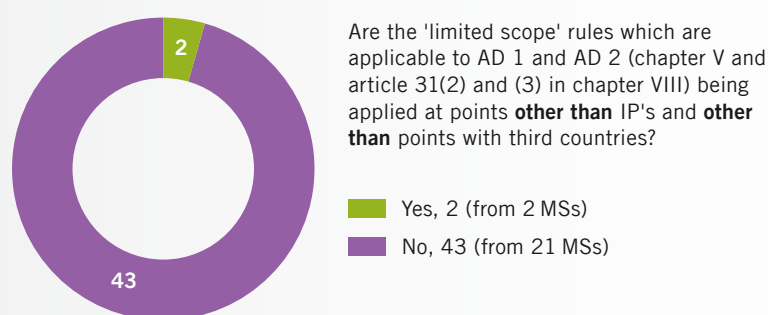
The TAR NC can be divided into 'broad scope' rules and 'limited scope' rules. 'Broad scope' rules are applied to all points on the transmission network, whereas 'limited scope' rules only apply at IPs by default. However, nothing prevents the NRA from extending the 'limited scope' rules to non-IPs. As per definitions in the CAM NC, IP means a physical or virtual point connecting adjacent entry-exit systems or connecting an entry-exit system with an interconnector, within the EU. Non-IPs include, entry-points-from/exit-points-to third countries and points such as domestic exit points, entry-points-from/entry points-to storage facilities or other facilities. The 'limited scope' rules which are applicable from AD 1 and AD 2 are Chapter V 'Pricing of bundled capacity and capacity at virtual interconnection points' and Article 31(2) and (3) 'Form of publication' in Chapter VIII 'Publication requirements'.



## Responses



**Figure 20:** Application of 'limited scope' rules at points with third countries



**Figure 21:** Application of 'limited scope' rules at points other than IP's and other than points with third countries

- ➡ Eight TSOs are applying 'limited scope' rules that are applicable from AD 1 and AD 2, at points with third countries. The 'limited scope' rules being applied are publication requirements as per Article 31(2) and (3) 'Form of publication'.
- ➡ A third of TSOs replied that this question is non-applicable for them as they do not have points with third countries, the remaining TSOs answered that they are not applying 'limited scope' rules at points with third countries.
- ➡ Currently only two TSOs are applying applicable 'limited scope' rules at points other than IPs and other than points with third countries. The remaining TSOs are not applying these rules at these points.

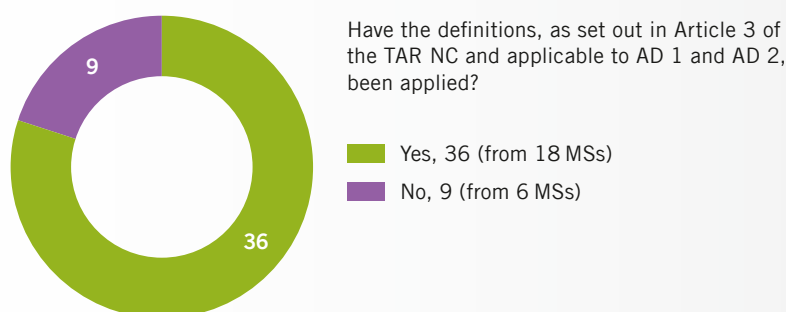
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**Overview of the Rule**

Article 3 lists 26 definitions setting out the meaning of some of the terms used in the TAR NC. The TAR NC incorporates definitions from the Gas Directive, the Gas Regulation, previous network codes and also introduces new definitions. Harmonised definitions contribute to clearer communication and avoids any potential misunderstanding. Although Article 3 is applicable as of AD 1, the definitions will not have to be introduced until the rule of the TAR NC the definition is related to, applies. A change is necessary if, for example, at the national level a certain notion is used with a different meaning than attributed to it by the TAR NC, or if the meaning of a notion is labelled differently than by the TAR NC. The eight definitions relevant for the Articles that the TSOs need to be compliant with for 2017 are:

- ▲ 'regulatory period'
- ▲ 'tariff period'
- ▲ 'non-price cap regime'
- ▲ 'price cap regime'
- ▲ 'allowed revenue'
- ▲ 'transmission tariff'
- ▲ 'non-transmission tariff'
- ▲ 'auction premium'

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**Responses**

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**Figure 22:** Introduction of the TAR NC definitions applicable to AD 1 and AD 2

- ➡ 36 TSOs answered that they are using the relevant definitions and provided links to sample documents where these definitions are in use.

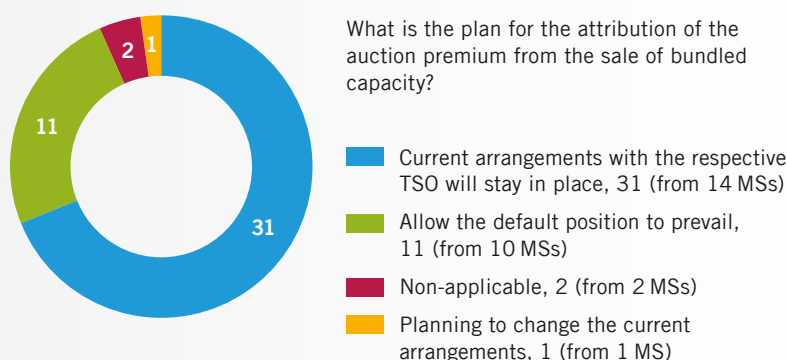
However, a small number of TSOs explained that although they have started using some of the definitions, they have not yet introduced them all. The introduction of all definitions will be completed when they change tariff period or when their national law is updated for the TAR NC.

- ➡ Just under a quarter of TSOs answered that they have not yet used the definitions as they are awaiting the outcome of: NRA decisions; a derogation application; or the outcome of reviews currently taking place on what they need to do for the implementation of the TAR NC.

### Overview of the Rule

The revenue from the bundled reserve price must be split between the two respective TSOs in proportion of the reserve prices for the capacities contributing to the bundle. As from AD 1, the TSO may need to negotiate and agree on the attribution of the auction premium from the sales of bundled capacity. The TSO has three options: (1) current arrangements with the respective TSO will stay in place, as per the CAM NC; (2) planning to change the current arrangements (the TAR NC sets no exact deadline for entering a new agreement, but the NRA will need to approve the agreement three months in advance of the yearly capacity auction, which corresponds to early April from 2018 on); (3) allow the default position to prevail – the auction premium shall be attributed to the respective TSOs equally. Current arrangements, option 1, can be the same as the default position, option 3, as explained in the 'Responses' below.

### Responses



**Figure 23:** Plan for the attribution of the auction premium from the sale of bundled capacity

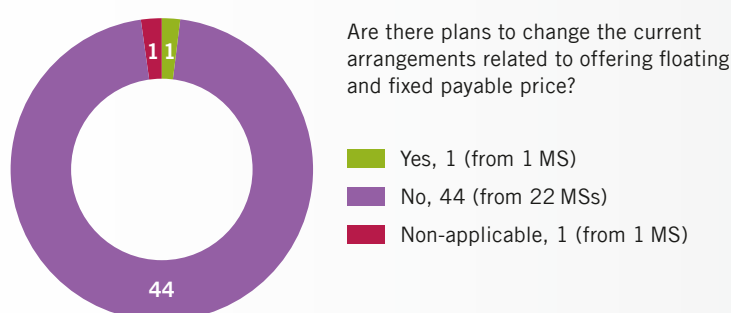
- ➡ 31 TSOs will keep the current arrangements with the respective TSO in place and for 11 TSOs the default position will prevail (the auction premium shall be attributed to the respective TSOs equally). For a number of the TSOs that indicated that they will keep the current arrangements in place – their current arrangements are the same as the default position. Some TSOs who will not 'change their current arrangements', also indicated that if they consider it necessary to do so, they might change their arrangements in the future.
- ➡ One TSO, who currently operates on the default position, indicated that they are planning to change the current arrangements with the respective TSOs, this will be discussed and reviewed with the adjacent TSOs in 2018.
- ➡ This Article is non-applicable for one TSO as it does not have an IP and another TSO does not have an IP where auctions are organised.

### Overview of the Rule

For payable price, there are two approaches the TSO can take, fixed or floating. Under the floating payable price, where capacity is bought for a gas year beyond the next, the reserve price is not known to network users. The reserve price will only be known before the annual yearly auction that takes place prior to the respective gas year. Under the fixed payable price approach, the basis and the evolution of the price is known to network users prior to the annual yearly capacity auctions. That is, the reserve price is known to network users, as is the type of index, even if the actual index value remains uncertain.

When collecting information for this report ENTSG asked the TSOs if they have any plans to change their current arrangements related to offering floating and fixed payable price. Whether they plan on changing the current arrangements, or not, they do not have to decide, or put arrangements in place, until the annual yearly capacity auctions in 2018 for the first time. Even so, this information gives us an overview of what the TSOs are currently planning in this regard.

### Responses



**Figure 24:** Plan to change the arrangements when offering floating and fixed payable price

- ➡ One TSO changed from fixed to floating payable price at IPs, in 2017, and it is currently proposed that they move from fixed to floating payable price at all points in 2019.
- ➡ The majority of TSOs said that they currently have no plans to change their payable price, however, this does not mean they will not change their current arrangements for the annual capacity auctions in 2018, or beyond.
- ➡ For one TSO, this question is non-applicable as they do not have an IP and do not apply the limited scope rules at 'other points'.

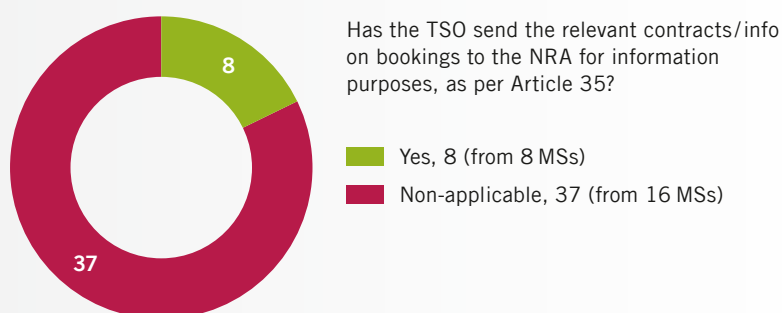
For a full list of the payable price arrangements per TSO, please see Annex D.

## ARTICLE 35 'EXISTING CONTRACTS'

### Overview of the Rule

Before 6 May 2017, TSOs were obliged to send to the NRA for information purposes the existing contracts or information on capacity bookings where such contracts and bookings foresee no change in the levels of the capacity- and/or commodity-based transmission tariffs, except for indexation.

### Responses



**Figure 25:** Sending the relevant information on 'existing contracts' to the NRA, as per Article 35

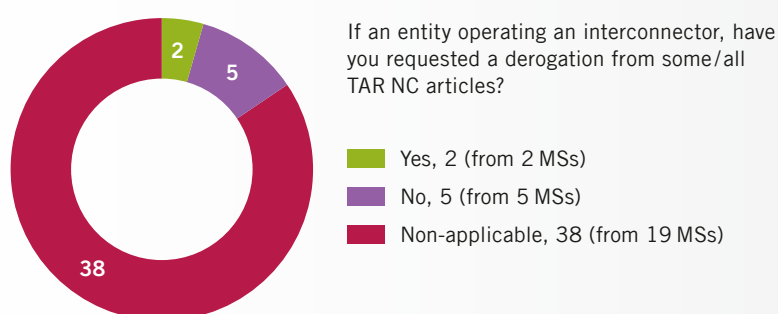
- ➡ Eight TSOs confirmed that they had sent the relevant information to their NRA before 6 May 2017.
- ➡ The majority of TSOs answered that this Article is non-applicable for them as they do not have such contracts in place (fixed price contracts concluded before 6 May 2017).



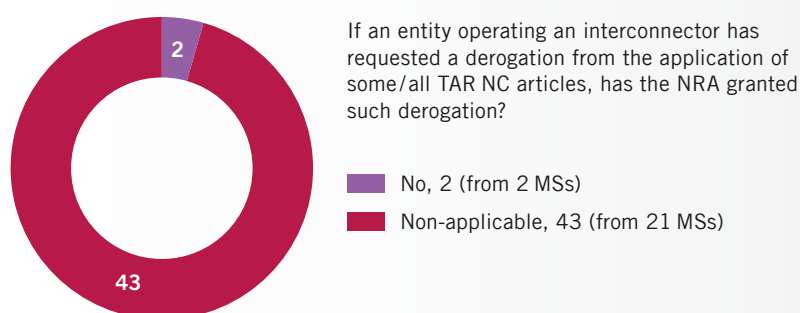
## Overview of the Rule

As from AD 1, it is possible for an entity operating an interconnector to prepare detailed reasoning (supporting documents and, optionally, a CBA) and request their NRA to grant a derogation from the application of some/all the TAR NC Articles.

## Responses



**Figure 26:** Derogation requests by interconnector operators



**Figure 27:** NRA decision on interconnector operator's derogation requests

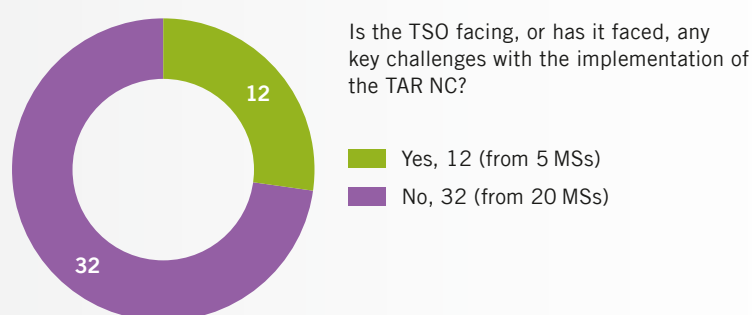
- ➡ Of the seven interconnector operators, five have not requested a derogation. As of December 2017, one interconnector operator has applied for a derogation. They are currently waiting on a decision by their NRA. For a second TSO, they intend to apply for a derogation in the near future.

## ADDITIONAL INFORMATION

### Question

TSOs were asked if they are facing, or have faced, any key challenges with the implementation of the TAR NC. If they answered yes, they were asked to provide a brief description and identify the solutions used when dealing with these challenges, if any.

### Responses



**Figure 28:** Key challenges facing the TSOs with the implementation of TAR NC

- ➡ A quarter of TSOs answered that they are facing some key challenges. For five TSOs, even though the NRA has responsibility for the consultation process in this country, providing all documents for consultation was highlighted as an issue. The same TSOs also identified the application of CWD in multi-TSO entry-exit zone as a key challenge, highlighting good cooperation between TSOs as an important step when dealing with this. Similarly, a TSO from another MS identified difficulties implementing the TAR NC for an entry-exit zone covering more than one MS, this TSO is still working on a solution. One TSO is encountering difficulties in determining the parameters for the CWD reference price methodology considering the complexity of their national transmission system. The solution they have identified is the simplification of the national transmission system by grouping entry and exit points and by identifying the dominant point related to each group of points. The classification of transmission and non-transmission services has also been identified as an issue by a TSO. For two interconnector operators implementing certain provisions of the TAR NC are a challenge, hence they are, or will, seek derogations from Articles or parts of Articles
- ➡ The majority of TSOs answered that they have not faced any key challenges with the implementation of the TAR NC as of December 2017.

## 3.3 Conclusion

### IMPLEMENTATION MONITORING

The TAR NC has been applicable since 6 April 2017, what we see from the first TAR NC monitoring report is that the vast majority of TSOs have implemented all the mandatory 2017 requirements from the TAR NC. In addition, 38 out of the 46<sup>6)</sup> TSOs have also implemented the 'early compliance' publication requirements, and TSOs have also started preparations for TAR NC implementation 2018.

For the publication requirements, 40 of the 46<sup>7)</sup> TSOs taking part in IM have published the required information as they should, a valid reason was provided by nearly all TSOs that have not published as set out in the TAR NC. Only two TSOs said that for some of the publication requirements it is a 'work in progress' or 'will not be done until 2018'. In addition, where the NRA has responsibility for publication, some TSOs have still published information on their websites.

Even so, there are a small number of issues that are worth pointing out. In several cases English was not used, sometimes the actual information to be published was not in English, or the text on websites leading to the required information was not in English, this should be addressed going forward. For three TSOs, even though the link on ENTSOG's Transparency Platform leading to the information on the TSOs or NRAs website, and the information to be published, is there, it was at times hard to find as the link did not bring the user directly to the required information, user-friendliness and ease of access can be improved. All would benefit when the link on ENTSOG's Transparency Platform leads directly to the standardised section template developed by ENTSOG and its members, this template allows the TSO to place links leading to the information required to be published for Article 29 and 30, including a link to the NRA website if they are the entity responsible for publication.

Although not mandatory, two TSOs undertook 'intermediate' consultations and published it in English. For the majority of TSOs it is their NRA who is responsible for the consultation process, however, most have already started contributing to the process through meetings and by providing any requested documentation. Eight TSOs are implementing the 'limited scope' rules at points with third countries, and at points other than IPs and points with third countries. 36 TSOs have started using the definitions from the TAR NC that should be introduced in 2017, this will contribute towards clearer communication and help avoid any potential misunderstandings.<sup>8)</sup>

For the attribution of the auction premium from the sale of bundled capacity, only in one case did TSOs indicated that they will change their current arrangements. One TSO said they are planning to change their arrangements regarding the use of fixed or floating payable price, in 2018. All TSOs with fixed price contracts concluded before 6 April 2017 sent the contracts or information to their NRA before 6 May 2017. Both TSOs operating interconnectors have, or will, apply for derogations from some Articles in the TAR NC.

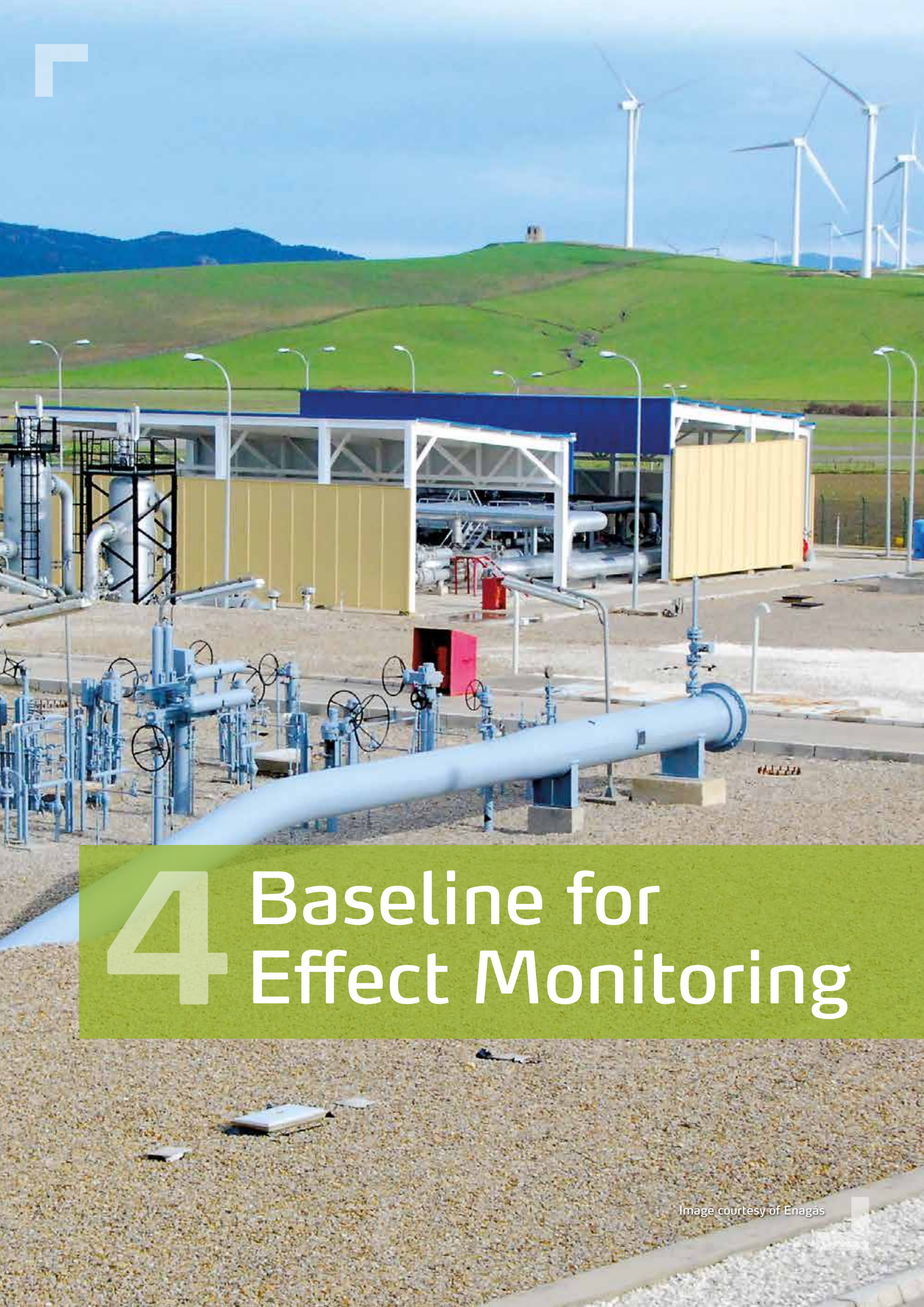
Several TSOs highlighted some key challenges they are facing with the implementation of the TAR NC. Some have already identified solutions to these challenges and for others it is a work in progress. 2017 was a busy year for the implementation of the TAR NC, especially with the publication requirements in December. TSOs indicated that they were already planning for 2018 with the publication requirements before the TSOs new tariff period and before the annual capacity auctions, and the consultation process being prominent.

6) For the publication of the reserve prices, in seven out of the remaining eight cases, it is the responsibility of the NRA and for one TSO it is non-applicable as they don't have an IP. For the publication of Article 30(1)(b), 11 out of 19 TSOs have published this information, it being the responsibility of the NRA for six TSOs, two TSOs have not published this information as one is applying for a derogation and the decision on this will determine the scope of what is to be published, and for the other TSO it is a work in progress after their derogation expired in 2017. For additional information please see the 'Publication requirements in 2017' section.

7) Of the remaining six TSOs, a decision on publication responsibility is still to be made for two TSOs from the same MS, for four TSOs certain requirements were not fulfilled due to, for example, being non-application for one TSO as they don't have an IP, due to pending derogation applications or it being a work in progress for one TSO.

8) The remaining TSOs are waiting on: NRA decisions, derogation applications or reviews currently taking place.





# 4 Baseline for Effect Monitoring

Image courtesy of Enagás



## 4.1 Introduction and Purpose

Monitoring the effect of the TAR NC as early as 2017 is necessary to provide a baseline for effect monitoring comparison in future years. The effect of the TAR NC should be compared to the baseline situation assessed in 2017, especially because the implementation of TAR NC Articles is staged during several years.

The data was collected by means of a survey. Indicators used for the present effect monitoring (EM) report (hereafter 'EM report 2017') could be adapted in future EM reports, especially regarding the availability of data.

The following results are presented only for TSOs who replied for the EM report 2017:

- ▲ 9 TSOs from 8 MSs for indicator TAR.1 on the level and variability of the under(-)/over(+) recovery, or 'under-/over-recovery'.
- ▲ 26 TSOs from 22 MSs for indicator TAR.2 on tariff changes at CAM and non-CAM points after new Reference Price Methodology (RPM) implementation (31 May 2019), or 'tariff changes'.
- ▲ 23 TSOs from 20 MSs for indicator TAR.3 on the evolution of short-term and long-term bookings after TSO implementation, or 'bookings'.
- ▲ 45 TSOs from 24 MSs for indicator TAR.4 on the publication of information in English, or 'publication in English'.
- ▲ 41 TSOs from 23 MSs for indicator TAR.5 on multipliers applied by TSOs, or 'multipliers'.



## 4.2 Information Sources and Data Collection

The data was collected by means of a survey. It consisted in 5 EM indicators to get information on the current situation which will be used as the baseline to assess TAR NC effects. Suggestions from ACER have also been taken into consideration for the definition of the EM indicators.

## 4.3 Description of the 5 EM Indicators

The 5 EM indicators used by ENTSG that will be used for the effect monitoring of TAR NC are as follows:

- ▲ Indicator **TAR.1** on the 'Level and variability of the under-/over-recovery' for TSOs.
- ▲ Indicator **TAR.2** on 'Tariff changes at CAM and non-CAM points'<sup>9)</sup>.
- ▲ Indicator **TAR.3** on 'Evolution of short-term and long-term bookings' of TSO capacity at CAM points.
- ▲ Indicator **TAR.4** on 'Publication of information in English'.
- ▲ Indicator **TAR.5** on 'Multipliers for short-term capacity products' at IPs.

The detailed description of each indicator is provided below.

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9) CAM points in a MS correspond to IPs and – where relevant – non-IPs (including entry-points-from and exit-points-to third countries) where the NRA decided to apply the CAM NC. Non-CAM points are all other points in the specific MS.

### 4.3.1 TAR.1: LEVEL AND VARIABILITY OF THE UNDER-/OVER-RECOVERY

#### Goal of TAR.1 (Under-/Over-recovery)

The objective of this indicator is to provide an assessment of the evolution of the regulatory account balance compared to the allowed revenue during the years following the implementation of the TAR NC. This topic on regulatory account is part of Chapter IV 'Reconciliation of revenue' of the TAR NC, which applies as from 31 May 2019, even though transparency requirements on revenue reconciliation is part of Chapter VIII 'Publication requirements' of the TAR NC, which applies as from 1 October 2017 with certain compliance in December 2017.

The main assumption to check is whether the TAR NC influences the level and dispersion<sup>10)</sup> of the regulatory account balance compared to the average allowed revenue for TSOs over time, i.e. during the years when the TAR NC is implemented and later. The pattern followed by the regulatory account balance may be a result of changes introduced by the TAR NC. If TAR.1 shows increased/reduced relative imbalance over time, it may also support/discard the assumption that the TAR NC implementation may develop tariff instability.

The implementation of the TAR NC may not be the only influence on the evolution of TAR.1.

#### Assumptions for TAR.1 (Under-/Over-recovery)

##### TAR.1 only applies in non-price cap regimes

TAR.1 focuses on the evolution of the under-/over-recovery for TSOs operating under a non-price cap regime. TSOs under a price cap regime do not require a regulatory account to register the difference between the allowed revenue and the actual revenue, since no allowed revenue is defined for them. Only a cap on tariff is set for TSOs with a price cap regime. Therefore, TAR.1 is not applicable for TSOs under a price cap regime. Most TSOs are operated under a non-price cap regime, except for the Slovak and Swedish TSOs which are operated under a price cap regime, and TSOs in the Czech Republic and Italy, which are operated under a combination of price cap and non-price cap regimes<sup>11)</sup>.

##### TAR.1 only considers the end-of-the-regulatory-year regulatory account balance

Only the regulatory year is relevant, i.e. the period equal to one-year for which the allowed revenue is defined within a regulatory period. The regulatory year may be different from the calendar year. It is only based on data for the under-/over-recovery between the allowed and the actual revenues at the end of a given regulatory year, not on the variations in the regulatory account balance during a given regulatory year.

10) Statistical dispersion is the extent to which a statistical distribution is stretched or squeezed, which means the extent to which the different values of the data are close or far from each other. In the present case, dispersion of the regulatory account balance means whether the values of the balance are close to the average of balances during the period. E.g., if the average balance is 0 over the period covering Year 1 to Year 3, the dispersion will be higher in case the balance values are -10, 0 and +10 than if the values are -1, 0, +1. Intuitively, this is because the range of values is higher in the first case (20 units between -10 and +10) than in the second case (2 units between -1 and +1).

11) For further developments, cf. [ENTSOG \(2017\)](#).

## TAR.1 only covers the yearly imbalance between the allowed and the actual revenue

It does not cover the TSO-specific revenue recovery arrangements that may have been defined in each MS to ensure revenue recovery over a certain number of years and/or within the year<sup>12)</sup>.

## Currency conversion

For TSOs in MSs with a currency other than the euro, a conversion into euros is required for TAR.1, by using that exchange rates applicable at 1 October 2017 and available on the website of the European Central Bank (ECB)<sup>13)</sup>.

## Change in regulatory periods

In case one of the regulatory years considered for TAR.1 is at the end of a regulatory period, TSOs should consider the under-recovery/over-recovery of this last year of the regulatory period (i.e. the same approach as for the other years of the period should be used). It is not because the imbalance is reset to zero at the end of the regulatory period that imbalance should be supposed to be zero for the last year.

## Interference with external elements

In case the value of the under-/over-recovery is not strictly determined by the operation of the TSO network, e.g. if court or NRA decisions influence the under-/over-recovery level, the measurement of the effect of the TAR NC on revenue recovery may be wrong. No such case applied for the EM report 2017, but it might be the case in future years.

## Calculations

TAR.1 should help to check if the TAR NC implementation drives increasing instability in yearly revenue recovery for TSOs, or not. For the current EM report 2017, TAR.1 articulates **two sub-indicators** of the regulatory account balance, by comparing periods 2013–15 and 2014–16, regardless of the limits of actual regulatory periods<sup>14)</sup>:

- One about the evolution of the average level of regulatory account imbalance over time<sup>15)</sup>. This sub-indicator, named **Average regulatory account Balance to the average allowed Revenue Ratio (ABRR)**, is assessed between 2013–15 and 2014–16: it shows whether the imbalance tends to increase or decrease as a share of the average allowed revenue of each period. E.g., if TSO A has an ABRR of –10.37 % in 2013–15 and –10.58 % in 2014–16, this sub-indicator shows increasing under-recoveries as a share of the average allowed revenue between periods 2013–15 and 2014–16. Reasons for this may be such as an increased overestimation of capacity bookings in 2014–16 compared to 2013–15. There exists a risk of increasing imbalance. The more ABRR tends to decrease over years in absolute terms, the better (because it implies lower revenue imbalance over time).

12) For example, in some MSs the NRA may have decided that under-/over-recoveries will be reconciled over a period of 5 years. TAR.1 does not consider such aspects and is only focused on the discrepancy between the allowed and the actual revenue for each year.

13) [Link](#) to the ECB website.

14) This grouping in 3 years is used to smooth evolutions in imbalances and revenues.

15) For example, if the regulatory account imbalance is –5, –3 and –1 for Years 1, 2 and 3, the average imbalance is –3 for this period. If the imbalance is +1, +4 and +7 for Years 4, 5 and 6, the average imbalance is +4 for that period. If it is assumed that the allowed revenue is constant from Year 1 to Year 6 and is 100, then the ABRR is  $-3/100 = -3\%$  for the Year 1 to Year 3 period, and  $+4/100 = +4\%$  for the Year 4 to Year 6 period. Therefore, the average absolute imbalance (i.e. regardless of sign) has increased, from 3 % to 4 %. This may be a sign of increased instability in revenue recovery, hence in tariff values.

- The other about the evolution of the spread of regulatory account imbalance over time, compared to the average allowed revenue<sup>16)</sup>. This sub-indicator, named **Standard Deviation of Balance to the average allowed Revenue Ratio (SDBRR)**, is assessed between 2013–15 and 2014–16: it shows if the absolute values of the regulatory account balance compared to the allowed revenue change little or much over the period. E.g., if TSO A has an SDBRR of 6 % in 2013–15 and 5 % in 2014–16, this sub-indicator shows reduced variability of the imbalance compared to the average allowed revenue over the years. The more SDBRR tends to reduce over years, the better (because it implies lower revenue and tariff instability over time).

$$\begin{aligned}
 ABRR_{2013-15} &= \frac{B_{2013} + B_{2014} + B_{2015}}{AR_{2013} + AR_{2014} + AR_{2015}} \\
 ABRR_{2014-16} &= \frac{B_{2014} + B_{2015} + B_{2016}}{AR_{2014} + AR_{2015} + AR_{2016}} \\
 SDBRR_{2013-15} &= \frac{\left[ \frac{1}{2} \sum_{i=2013}^{2015} (B_i - \bar{B}_{2013-15})^2 \right]^{\frac{1}{2}}}{\frac{1}{3} (AR_{2013} + AR_{2014} + AR_{2015})} \\
 SDBRR_{2014-16} &= \frac{\left[ \frac{1}{2} \sum_{i=2014}^{2016} (B_i - \bar{B}_{2014-16})^2 \right]^{\frac{1}{2}}}{\frac{1}{3} (AR_{2014} + AR_{2015} + AR_{2016})}
 \end{aligned}$$

Where:

- $ABRR_{2013-15}$  and  $ABRR_{2014-16}$  are the Average Balance-to-Revenue Ratios for periods 2013 to 2015 and 2014 to 2016.
- $B_{2013}$ ,  $B_{2014}$ ,  $B_{2015}$  and  $B_{2016}$  are the regulatory account balances for regulatory years 2013 to 2016, under the assumption that the balance is simply the difference between the actual and the allowed revenue for each regulatory year.
- $AR_{2013}$ ,  $AR_{2014}$ ,  $AR_{2015}$  and  $AR_{2016}$  are the allowed revenues for regulatory years 2013 to 2016.
- $SDBRR_{2013-15}$  and  $SDBRR_{2014-16}$  are the values of the standard deviation of regulatory account balances, respectively for periods 2013 to 2015 and 2014 to 2016.
- $B_i$  is the regulatory account balance for regulatory year 'i'.
- $\bar{B}_{2013-15}$  and  $\bar{B}_{2014-16}$  are the arithmetic means of the regulatory account balances, respectively for periods 2013 to 2015 and 2014 to 2016.

16) With the same example as in the previous footnote, the standard deviation of imbalances is +2 in the Year 1 to Year 3 period (–5 and –1 are indeed 2 units away for the average –3), and +3 in the Year 4 to Year 6 period (+1 and +7 are indeed 3 units away from the average +4). With the same assumptions in terms of allowed revenue as before, then the SDBRR is  $+2/100 = 2\%$  for the first period, and  $+3/100 = 3\%$  for the second period. Therefore, the dispersion of imbalances has increased, from 2 % to 3 %. This may be a sign of increased variability in the imbalances, since it is less easy to forecast what will be the imbalance in future years from information about past imbalances. Such instability may justify sharper year-on-year tariff changes.

### Example for TSO 'X'

- Assumed Imbalance: +10 (2013), +7 (2014), +5 (2015), +4 (2016)
- Assumed Allowed Revenue: 99 (2013), 101 (2014), 100 (2015) and 102 (2016)
- ABRR is therefore 7.33 % in 2013–15 and 5.28 % in 2014–16
- SDBRR is therefore 2.52 % in 2013–15 and 1.51 % in 2014–16
- Both ABRR and SDBRR decrease between 2013 and 2016, which is a good evolution.

This example shows the approach followed for each TSO to derive results.

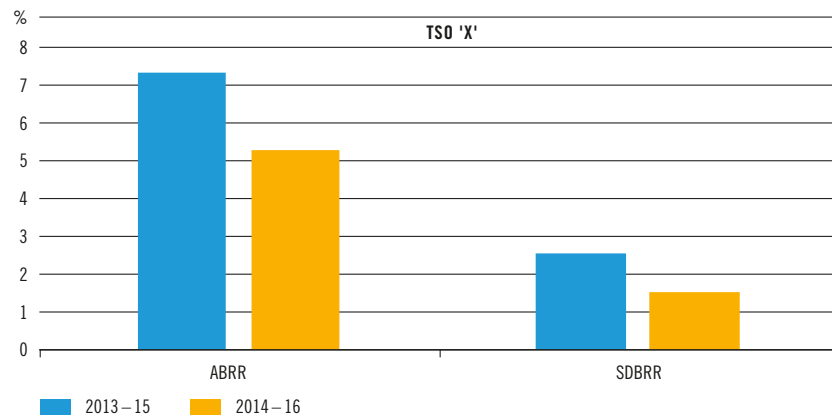


Figure 29: application of TAR.1 to fictional TSO 'X'

### Interpretation of TAR.1

- For each TSO, a table will show whether the evolution is favourable or not in terms of ABRR and SDBRR, which means whether either or both indicators evolve towards better or more stable revenue recovery.
- In the figure provided for the above example, the TSO would figure in the 'positive evolution' column, since both the absolute ABRR and SDBRR go down.



## 4.3.2 TAR.2: TARIFF CHANGES AT CAM AND NON-CAM POINTS

### Goal of TAR.2 (Tariff Changes)

The objective of TAR.2 is to consider the evolution of capacity-based and commodity-based tariffs between the tariff period before the prevailing tariff period and the prevailing tariff period for each TSO.

TAR.2 covers capacity and/or commodity charges used at each point by a TSO (ca-veats apply for the use of this indicator for commodity charges, cf. assumptions below).

The intention of this indicator is to measure if the TAR NC implies any significant consequence regarding tariff variability at CAM and non-CAM points. Therefore, indicator TAR.2 is mainly relevant once the TAR NC is fully applicable, with all its provisions applicable as from 31 May 2019.

However, the consideration of this indicator in 2017 is the 'baseline' to which the future evolution of tariff variability could be compared in future EM reports.

### Assumptions for TAR.2 (Tariff Changes)

#### Relevant points

For data collection purposes, TSOs could expressly distinguish between CAM-relevant and non-CAM-relevant points. In practice, such distinction was not made by TSOs.

TAR.2 shall cover at least standard firm yearly capacity products. Evolutions in the definition of points may limit comparability (e.g. before/after the creation of a VIP).

Only tariffs for points relevant for Transmission Services (TS) as per the TAR NC should be covered by TAR.2. Typical points to consider generally include IPs, storage connection points, DSO connection points, LNG connection points and production connection points.

#### Currency conversion to euro

TSOs for which a currency other than the euro applies shall convert tariffs in euros (EUR). The exchange rates valid at 1 October 2017 and provided by the European Central Bank were used as references (e.g., for Bulgaria 1 EUR = 1.9558 BGN).

#### Relevant capacity products and units

TAR.2 only covers the standard firm yearly tariffs applicable at each point of their network. Tariffs will be indicated for example in EUR/(MWh/day) for capacity tariffs and in EUR/MWh for commodity tariffs. TSOs may refer to other units such as EUR/(kWh/h) if such units apply to their tariffs, but they should convert tariffs in EUR in any case<sup>17)</sup>. TSOs should make sure that the comparison of tariff periods is run for the same units, for consistency purposes.

17) TSOs were in charge of currency conversions and ENTSOG checked data provided by TSOs.

## Time periods to consider

TAR.2 must not compare **previous/prevaling tariffs with future tariffs**.

TAR.2 must only compare previous and prevailing tariffs. TSOs should only compare consecutive tariff periods.

In case tariff periods cover more than 1 year, TSOs should not compare consecutive calendar years since there will be no change within a tariff period in principle, unless any adjustment to inflation or other indices is taken into account in MSs with multi-year tariff periods<sup>18)</sup>.

## Option regarding point groupings

TSOs may choose to group homogeneous or non-homogeneous points in case they share the same tariffs<sup>19)</sup>.

## Commodity charges

Article 4 of the TAR NC sets out that there should be the same flow-based charge at entry points, and the same at exit points, if any such charges are used. The same value may be used for entry and exit in this case. Since the TAR NC is not yet fully implemented, some TSOs display different commodity charges for points on the same side, which must be changed due to the TAR NC. The EM report 2017 aims to reflect the reality of TSO tariffs<sup>20)</sup>. The approach is therefore to assess both capacity charges at each point and commodity charges at each point where the charges are different from one point to another. In the case where the commodity charge is the same for all points of the same side or for all TSO points, such commodity charge is assessed only once.

## Average tariff changes

Average tariff changes were calculated by TSOs, with the possibility for them to give weights to capacity-based and commodity-based tariffs. When TSOs did not provide such average changes, the simple average of all changes in capacity-based and commodity-based tariffs was calculated by ENTSOG, under the specific assumption made for commodity charges (see above).

## Calculations

The change in percentage between each capacity-based or commodity-based tariff in the previous tariff period and the prevailing tariff period in Q4 2017 is calculated. This calculation is made both for the capacity and the commodity parts of the tariffs at each point. For example, if a TSO displays both a capacity charge and a commodity charge, the calculation will count the capacity-based tariff as one item to consider, and the commodity-based tariff as another item to consider.

For the EM report 2017, which is based on 2017 data, the range of tariff changes is calculated, as well as the simple average of percentage evolutions.

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18) Currently, MSs with multi-year tariff periods are Austria, Belgium, Croatia and Slovakia.

19) As an example of tariffs at homogeneous points, if regulatory provisions imply that tariffs are the same at all LNG connecting points, TSOs may indicate tariffs for one single representative of these points instead of all of them.

20) Some TSOs only apply commodity tariffs to certain points and exclude others (this distinction especially occurs for storages). Therefore, it seems reasonable to repeat the same commodity tariff for different points since it reflects the reality of such tariffs at each point, along with capacity tariffs. As a rule, the EM report 2017 distinguishes capacity tariffs at each point, and one single entry/exit commodity charge, unless commodity charges are different for different entry points, or different exit points.

### Example

One TSO has 3 points to consider for TAR.2: points A, B and C.

Since the last tariff period (January 2016–December 2016), tariffs have evolved in the January to December 2017 prevailing tariff period at the time of the survey (Q4 2017). Evolution for capacity tariffs is assumed to be: +5 % for A, –3 % for B and +7 % for C. Evolution for commodity tariffs is +3 % for A, 0 % for B and 0 % for C. The range of tariff changes is therefore between –3 % and 7 %, with an average evolution of +2 % (by summing up all percentage changes and dividing by 6, i.e. number of points multiplied by number of applicable capacity-based or commodity-based tariff).

### Interpretation of TAR.2

The TAR.2 indicator should be used to assess future tariff evolutions for each TSO.

**It is not intended to draw comparisons between TSOs**, because tariff evolutions depend on TSO-specific justifications which may be related to changes in the allowed revenue or changes in booking behaviour at the TSO level.

## 4.3.3 TAR.3: EVOLUTION OF SHORT-TERM AND LONG-TERM BOOKINGS

### Goal of TAR.3 (Bookings)

This indicator aims to check the possible changes in the way network users book capacities after the TAR NC implementation. The objective is to consider if the TAR NC contributes to the increase in the share of short-term bookings in total bookings. The underlying idea is that the provisions of the TAR NC about short-term multipliers may play as incentives for booking behaviour<sup>21</sup>.

The main goal of TAR.3 is to check whether the TAR NC plays a role on booking behaviour, in terms of a possible trend away from long-term bookings. The TAR NC may be a reason for such evolution, along with other causes such as the existence of unused capacity in non-congested networks. Any conclusion should be drawn with respect to the possibility of other factors.

### Assumptions for TAR.3 (Bookings)

#### TAR.3 considers CAM-based firm and interruptible capacity products

This indicator looks at yearly, quarterly, monthly, daily and within-day capacity products. Firm products are considered as a requirement, *while interruptible products are only optional*. It will be indicated where TSOs also give data for interruptible products.

<sup>21</sup>) Relevant information on this subject in the TAR NC is in Chapter III 'Reserve prices', which will apply as from 31 May 2019.

### **TAR.3 focuses on the breakdown of capacity bookings for the two most recent gas years**

The analysis performed here is to compare possible evolutions in the distribution of bookings between gas years 2014–15 and 2015–16. The point is not to underline the evolution of total booked capacities in absolute terms, but rather the different percentages corresponding to each type of capacity product. TSOs fill in data about booked capacity in GWh/d for each capacity product.

### **TAR.3 considers booking evolutions for CAM-relevant points only**

The metric calculated is the sum of total entry and exit capacity bookings for each product and at each CAM-relevant point (the calculation is not about net entry/exit bookings). No consideration is made about non-CAM points, because only the comparison of points in the scope of both the CAM NC and the TAR NC ensures higher comparability.

## **4.3.4 TAR.4: PUBLICATION OF INFORMATION IN ENGLISH**

### **Goal of TAR.4 (Publication in English)**

Indicator TAR.4 aims to check if information to be published per the TAR NC will be available in English, which is supposed to facilitate access to markets for all network users. **It contributes to transparency and tariff comparability across Europe.** Documents in English will enhance market integration by facilitating such access to information.

Such topic is described in Chapter VII ‘Consultation requirements’ and Chapter VIII ‘Publication requirements’ of the TAR NC, whose application dates were respectively on 6 April 2017 and 1 October 2017. The TAR NC states that information should be published ‘to the extent possible’ in English regarding the periodic consultation, the annual yearly capacity auction and the tariff period.

### **Assumption for TAR.4 (Publication in English)**

TAR.4 refers to information for the periodic consultation, the annual yearly capacity auction and the tariff period.

5 sub-indicators are assessed to check if information is published in English:

- ▲ Information for the periodic consultation,
- ▲ Information on the responses to the periodic consultation,
- ▲ Information for the consultation on some discounts, multipliers and seasonal factors,
- ▲ Information for the yearly capacity auction, and
- ▲ Information for the tariff period consultation.

TAR.4 only covers Art. 26, 28, 29 and 30.

As an exception for the present EM report, TAR.4 will cover what is intended to be published.

## 4.3.5 TAR.5: MULTIPLIERS APPLIED BY TSOs

### Goal of TAR.5 (Multipliers)

This indicator covers the multipliers currently applied by TSOs for each non-yearly standard capacity product. It provides information on quarterly, monthly, daily and within-day standard capacity products.

The objective of TAR.5 is to give transparency on multipliers applied to short-term products at IPs only. The TAR NC implementation may have an impact on the level of multipliers after 2019, when all Chapters in the TAR NC are implemented.

The topic of multipliers is mostly addressed in Chapter III 'Reserve prices', Chapter VII 'Consultation requirements' and Chapter VIII 'Publication requirements' of the TAR NC, whose application dates are 31 May 2019 for Chapter III, 6 April 2017 for Chapter VII, and 1 October 2017 for Chapter VIII. Art. 13 of the TAR NC sets out that the level of multipliers for quarterly and monthly standard capacity products must be between 1 and 1.5 both included, and that it must be between 1 and 3 both included for daily and within-day standard capacity products (unless 'duly justified cases' apply)<sup>22</sup>). However, this Article only applies as from 31 May 2019, and the present EM report only focuses on the baseline situation for TSOs, before the full implementation of the TAR NC.

### Assumption for TAR.5 (Multipliers)

#### TAR.5 considers a range of values for multipliers used by each TSO

This indicator focuses on the minimum, maximum and average values of multipliers to cover the case where, for a given capacity product, specific IPs benefit from specific multipliers, as allowed by Art. 12.1 of the TAR NC. For each capacity product, average levels have been calculated by the TSO before sending its data to ENTSG. However, for other TSOs multipliers will be the same for a given type of capacity product at all IPs (e.g. 1.5 for all quarterly products at all IPs).

TAR.5 considers the current multipliers and identifies outliers.

The figures used for TAR.5 show the current values of multipliers for TSOs which are not considered as outliers<sup>23</sup>.

#### TAR.5 takes specific provisions regarding within-day multipliers.

For within-day capacity purposes, some TSOs currently market daily products. The TAR NC sets out that only within-day products for these purposes, based on their hourly duration, are allowed. However, it is not currently prohibited to price within-day capacity as daily products, since provisions on within-day tariffs are part of Chapter III of the TAR NC, whose application date is on 31 May 2019. TSOs with daily products sold for within-day use have been taken out of TAR.5 analysis since they are not fully comparable with the other TSOs.

<sup>22</sup>) Article 13(1)(b) of the TAR NC sets out that: 'In duly justified cases, the level of the respective multipliers may be less than 1, but higher than 0, or higher than 3.'

<sup>23</sup>) Cf. the 'Results' section for more details on the application of this assumption.



## 4.4 Results for the 5 EM Indicators

The assessment of TSOs for each indicator implied that each TSO was randomly attributed a reference, such as 'TSO\_01'.

For example, TSO 'X' has generally different references across indicators TAR.1 to TAR.5 (however, for TAR.4 and TAR.5, which also comprise sub-indicators, each TSO keeps the same reference across all sub-indicators of TAR.4 and all sub-indicators of TAR.5).

### 4.4.1 RESULTS FOR TAR.1 (UNDER-/OVER-RECOVERY) IN 2017

The results in terms of value and variability of the regulatory account were assessed from data valid over the two periods<sup>24)</sup> 2013–15 and 2014–16. The overlap of these periods is justified for 2 reasons: 1) the number of years considered since 2013 is too small to build two non-overlapping periods, and 2) the benefit of overlapping periods limits variation effects due to changes on one single year.

Some information is available for 9 TSOs from 8 MSs only<sup>25)</sup>. This reduced number is explainable by 2 main factors: 1) this indicator is only applicable for TSOs operated under a non-price cap regime, and 2) the indicator requires that information on regulatory account and revenue reconciliation for years before the application of the TAR NC is disclosed to allow calculations of the 2 ratios (many TSOs clarified that national provisions made by NRAs don't oblige the publication of such data or even restrict such publication to preserve the confidentiality of commercially-sensitive data).

The following figures give the values of the Average Balance to Revenue Ratio (ABRR) and the Standard Deviation of the Balance to Revenue Ratio (SDBRR) for periods 2013–15 and 2014–16.

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24) The starting date of 2013 was chosen as a compromise between the need for a sufficient number of years in the sample (which required to refer to as many past years as possible), and the availability of information from TSOs (data for past years was not always comparable because of changes in regulatory methods).

25) Out of the 9 TSOs, 1 TSO cannot be used for comparisons because it does not provide data for all years. No validated regulatory account balance data is available in 2016 because data for revenue recovery in 2016 has not yet been approved by the NRA.



**Figure 30: TAR.1 results for TSOs in Europe**

Referring to all TSOs for which data is available for both periods, the average absolute imbalance over all TSOs was 6.94 % over the 2013–15 period and 8.83 % over the 2014–16 period<sup>26)</sup>. Since TSO\_03 appears as an outlier because of average absolute imbalances above 20 %, the average absolute imbalance without this TSO was calculated and it is 4.64 % and 5.84 % for each period.

About the average standard deviation of the balance compared to the allowed revenue (average SDBRR) over all TSOs, it was 6.08 % for 2013–15 and 6.01 % over 2014–16 for all TSOs in the sample.

Results show:

- ▲ A trend towards a slight increase in the absolute imbalance (absolute ABRR) between 2013 and 2016, which means that, on average, the actual revenue of TSOs was a bit further away from their allowed revenue in 2016 compared to 2013<sup>27)</sup>. This may suggest slightly increased instability in revenue recovery. As possible fallout, tariff adjustments may be necessary to compensate for the gap between allowed and on actual revenues.
- ▲ A trend towards a slight reduction in the relative standard deviation of the imbalance compared to the allowed revenues (SDBRR) between 2013 and 2016, which implies that the difference between imbalances tends to be reduced over time. It means that on average the value of the imbalance gets to be increasingly stable.

26) Intuitively, it means that a TSO was under-recovering or over-recovering an amount equivalent to 6.94 % of its allowed revenue during the period 2013–15.

27) Because of partially overlapping periods in years 2014 and 2015, the differences come from the comparison of 2013 and 2016.

The combination of the ABRR and SDBRR results suggests that between 2013 and 2016 the imbalance slightly grew in absolute terms and became slightly more stable over the years. Over all TSOs, this result means a slightly increased trend to persistent under-recovery or over-recovery.

Results on ABRR and SDBRR on such a reduced time horizon with partly overlapping years and a reduced sample size are probably not very significant.

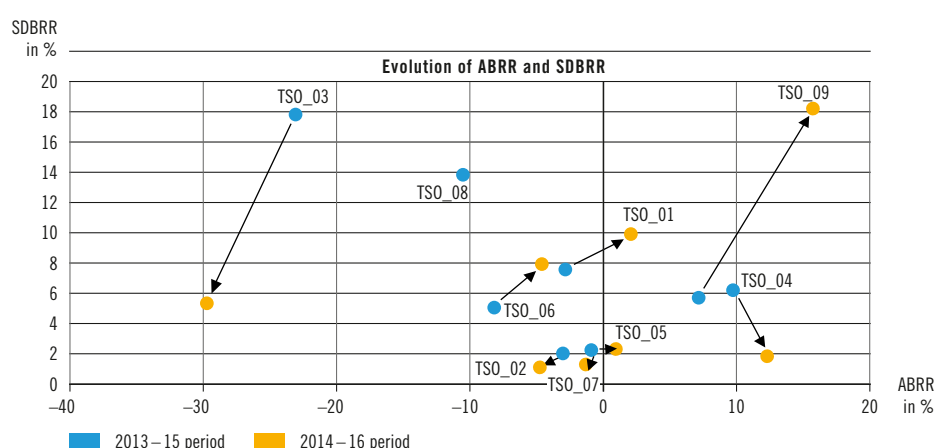
As for the current years and sample, the results are summarised in the following table. Green cells indicate a favourable evolution in terms of the relevant sub-indicator ABRR or SDBRR: a reduction in the absolute value of ABRR and/or in SDBRR. Orange cells correspond to a negative evolution, i.e. an increase in the absolute value of ABRR and/or SDBRR.

Most TSOs are in the situation where the evolution is mixed, which means that they experienced either a reduced absolute ABRR coupled with an increasing SDBRR, or an increasing absolute ABRR coupled with a reduced SDBRR. TSO\_08 could not be assessed since no validation of the regulatory account balance has been yet approved for 2016.

QUALITATIVE EVOLUTION		
Evolution since 2013	Sub-indicator ABRR	Sub-indicator SDBRR
TSO_01		
TSO_02		
TSO_03		
TSO_04		
TSO_05		
TSO_06		
TSO_07		
TSO_08	N/A	N/A
TSO_09		

**Table 1:** Qualitative evolution of TAR.1 sub-indicators ABRR and SDBRR

The figure below shows the evolution of TSOs between the overlapping 2013–15 and 2014–16 periods.



**Figure 31:** Graphical evolution of TAR.1 sub-indicators ABRR and SDBRR

The figure above indicates the evolution of ratios for TSOs where some information is available. For most TSOs, evolution of the position of their ABRR-SDBRR couple is no greater than 15% in absolute value for both periods. This points out that the imbalance is not higher than 15% most of the time, and that the imbalance is relatively stable compared to the allowed revenue.

The ideal situation would be for a TSO located at the origin of the figure – i.e. at the (0%, 0%) point – because it would reflect the exact recovery of the allowed revenue and a perfect stability of this situation between periods.

#### 4.4.2 RESULTS FOR TAR.2 (TARIFF CHANGES) IN 2017

The evolution of tariffs between the previous tariff period and the one prevailing in Q4 2017 is available for 26 TSOs from 22 MSs<sup>28)</sup>.

For most TSOs, the evolution of capacity-based and commodity-based tariffs since the previous tariff period is no higher than +/-10%. Average evolutions are therefore generally not very sharp.

TSO\_25 and TSO\_26 were removed from the figure below and from the calculation of averages. For TSO\_25, it is because it is considered as an outlier, and for TSO\_26 it is because of a lack of available data. The tariff methodology of TSO\_25 has changed just before the entry into force of the TAR NC, meaning that some commodity charges were removed (-100%) and capacity charges were introduced<sup>29)</sup>. For TSO\_26, information is only available for 2017 because of the end of a derogation, therefore, it is not possible to calculate tariff changes.

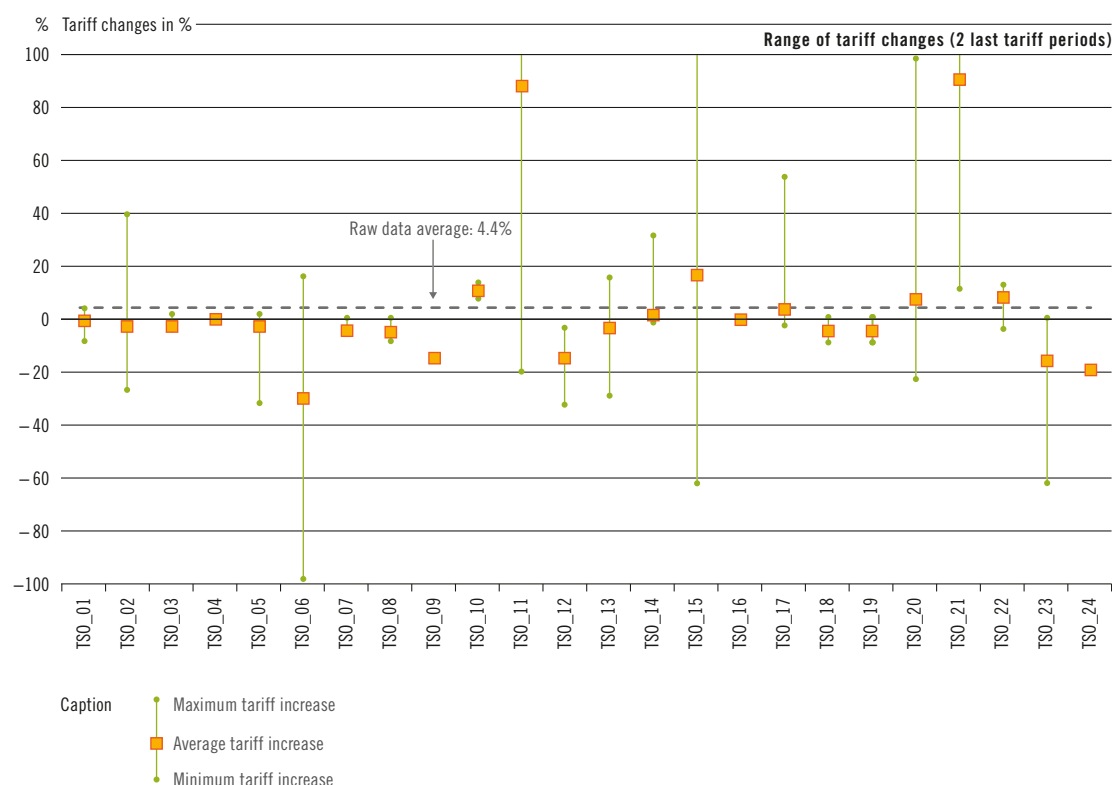


Figure 32: Graphical evolution of TAR.2

28) In the specific group of TSOs with tariff periods longer than one year, tariffs for some TSOs evolved from one year to the next within the tariff period (for TSO\_07, TSO\_15 and TSO\_24), and tariffs for the other TSOs only evolved at the change of tariff periods (for TSO\_11 and TSO\_14).

29) The increase in capacity tariffs is infinite in this case (it is a division by zero), which makes TSO\_25 an outlier. To avoid this problem, this TSO was not included in calculations.

For the 24 remaining TSOs, the average tariff evolutions suggested above may hide sharp evolutions for individual tariffs. Some TSOs display large variations for some capacity-based or commodity-based tariffs at some points despite quite limited average variations. Significant changes are observed for TSO\_11 and TSO\_21. For TSO\_11 it is because of a very strong adjustment at one point, compared to other points where moderate increases or even decreases are observed. For TSO\_21 it is because of significant tariff increases at all points, and especially some commodity tariffs<sup>30)</sup>.

Figure 32 shows the evolution of tariffs between the previous and the prevailing tariff periods for each TSO, with **orange and red squares marking the calculated average evolution of capacity-based and commodity-based tariffs**. The black dashed line is the average tariff evolution for all TSOs (+4.4 %).

### 4.4.3 RESULTS FOR TAR.3 (BOOKINGS) IN 2017

Data received from 23 TSOs from 20 MSs allows us to assess the segmentation of capacity bookings in gas years 2014–15 and 2015–16, as measured in GWh/d. TSOs were offered the possibility not to give details as to interruptible bookings, especially for confidentiality reasons<sup>31)</sup>. Overall, out of 23 responses, only 10 responses gave a positive value for interruptible bookings.<sup>32)</sup> For the 13 other TSOs, the value is zero, either because TSOs decided not to communicate on existing interruptible bookings, or because there is simply no interruptible capacity sold. Out of the 23 TSOs which replied, 2 TSOs did not provide information for gas year 2014–15: for TSO\_16 this is because of the set-up of the gas market in 2015, implying that products were only sold on a calendar year basis<sup>33)</sup> in 2015 and 2016, and for TSO\_11 because of no bookings during 2015.

The next figure – given in two parts for visibility – shows that for most TSOs, yearly firm products constitute the bulk of capacity bookings in terms of total contracted capacity. There is at least a relative dominance of yearly products for 19 TSOs in 2015–16 out of the 23 responses received<sup>34)</sup>.

Only 2 TSOs feature cases where short-term firm products constitute the majority of bookings. For one of these TSOs, TSO\_13, there was a majority of bookings on the basis of quarterly firm products in 2014–15, and in 2015–16 a majority of bookings came in turn from daily firm products. The IT system of TSO\_20 did not make it possible to distinguish between monthly, quarterly and yearly products, therefore all bookings for these products are indicated as monthly products.

Out of the 10 TSOs which both sell and communicate on interruptible products, 2 of them (TSO\_04 and TSO\_12) have a majority of bookings made up of interruptible products in 2015–16.

For this baseline report, the changes from one year to another are not due to the TAR NC implementation.

30) For that TSO, such commodity tariffs are different on the same side, i.e. either entry or exit.

31) Since it is assumed that, in general, TSOs get most of their revenues from firm capacity products, data on interruptible products was deemed less necessary than data on firm products. However, the lack of a common approach for all TSOs as regards interruptible products somewhat limits the conclusions that can be drawn about interruptible products.

32) TSOs which indicated interruptible bookings are TSO\_01, TSO\_02, TSO\_03, TSO\_04, TSO\_06, TSO\_08, TSO\_12, TSO\_20, TSO\_21 and TSO\_23.

33) For TSO\_16, Figure 35 shows results not for the 2015–16 gas year but for the 2016 calendar year. This difference was not deemed sufficient to exclude TSO\_16 from the comparison with other TSOs.

34) TSO\_06 mentioned that since the CAM NC was not yet applicable in gas year 2014–15, for this EM report 2017 they assimilated their non-CAM 3-month products of that time to monthly products, while their non-CAM products of that time with a validity period higher than 3 months were considered as equivalent to yearly products. TSO\_06 used the same approach regarding gas year 2015–16 for consistency and comparability with the previous gas year. This approach is justified because the CAM NC was applicable as from 1 November 2015, whereas the 2015–16 gas year had already started since 1 October 2015.

Annualised breakdown of capacity bookings (1/2)

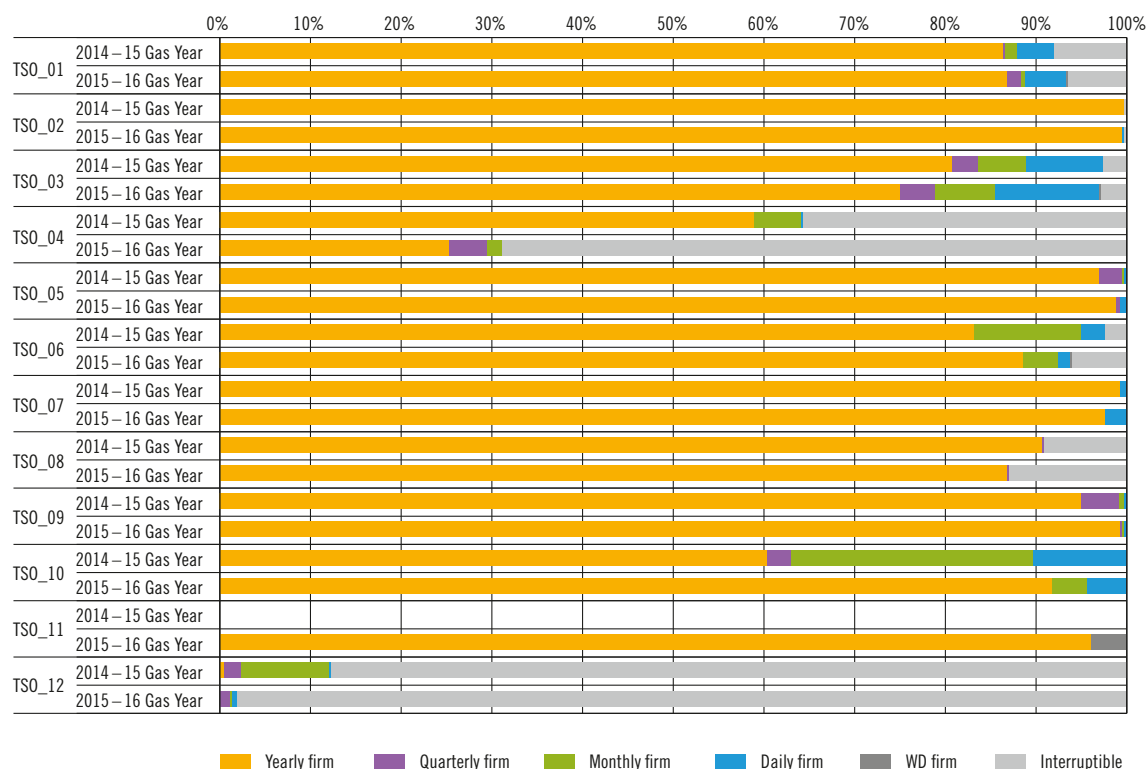


Figure 33: TAR.3 evolutions for TSOs in Europe (1/2)

Annualised breakdown of capacity bookings (2/2)

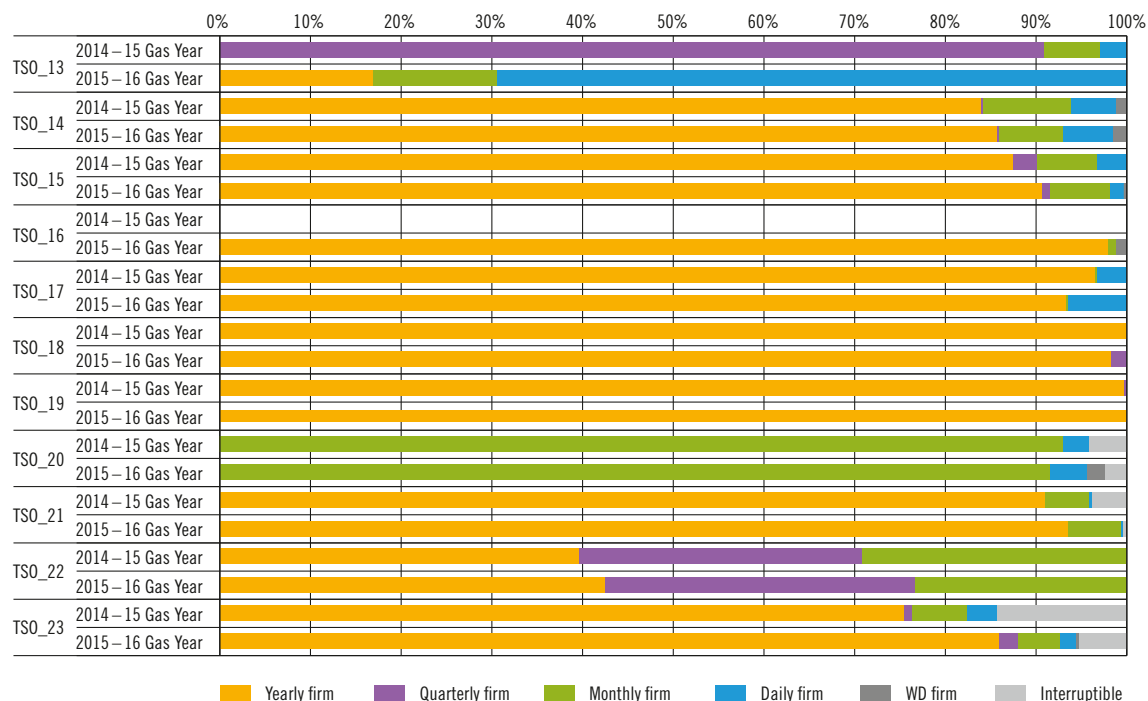
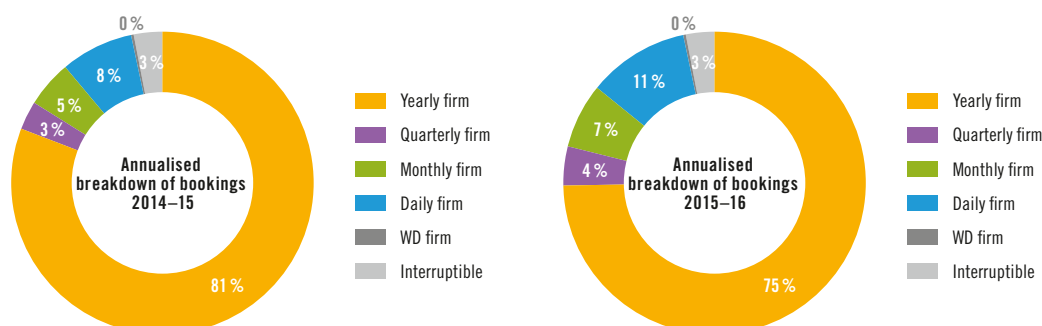


Figure 34: TAR.3 evolutions for TSOs in Europe (2/2)



In terms of the evolution of bookings for the aggregated 23 TSOs which replied to this question, the following figure indicates a moderate reduction of the share of yearly capacity products in the portfolio of booked capacity between gas years 2014–15 and 2015–16.

However, it is important to note that some TSOs did not send data on indicator TAR.3. In case they participate in future EM reports, the current results may be significantly modified.



**Figure 35:** Aggregated breakdown of TAR.3 capacity bookings

Interestingly, in just one year the share of yearly bookings was adjusted down from 81 % to 75 % of total TSO capacity bookings. These capacities were replaced by short-term products, namely quarterly (+1 pt.), monthly (+2 pts) and mainly daily products (+3 pts). This change in bookings did not affect within-day products, whose share in total bookings is still negligible.

For interruptible products, it is impossible to draw any significant conclusion, because of the choice of some TSOs not to communicate on such products. However, it seems that the share of interruptible products still represents only a limited portion of TSO bookings, to the notable exception of the 2 TSOs mentioned previously. An exhaustive view of interruptible products could alter the previous picture, especially in case the share of interruptible products is currently underestimated due to TSOs keeping interruptible bookings confidential.

Again, the above figure on bookings breakdown is probably dependent on some TSOs not sending data for this indicator. More comprehensive feedback from EU TSOs could show a different picture, probably with significantly lower yearly bookings.

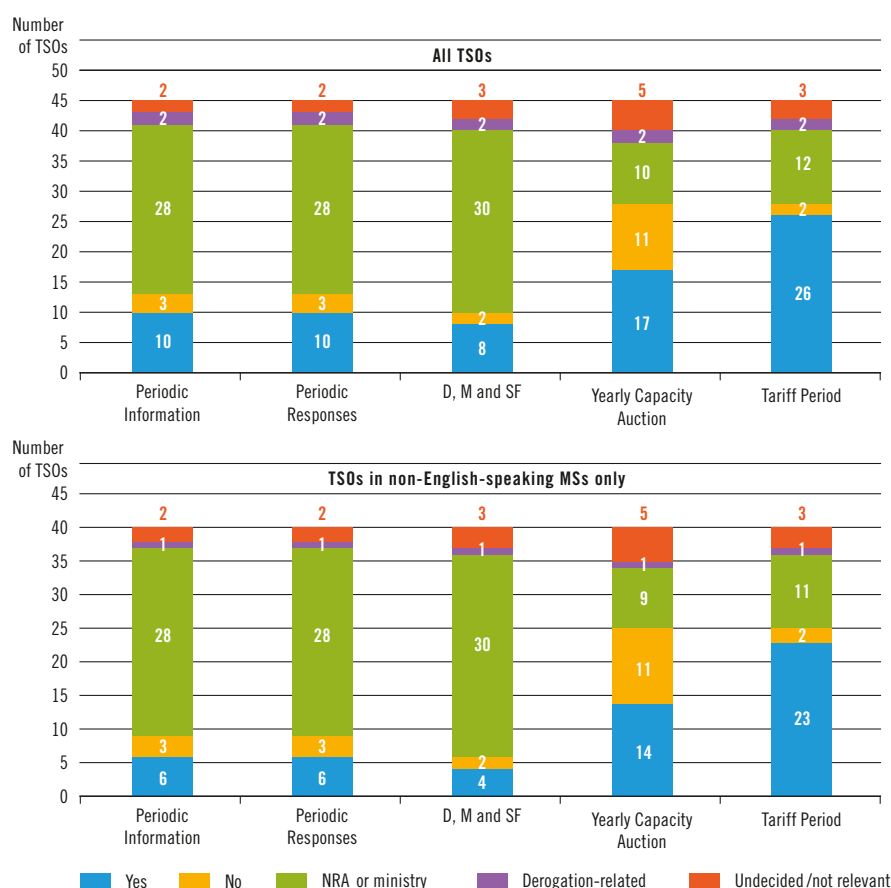
#### 4.4.4 RESULTS FOR TAR.4 (PUBLICATION IN ENGLISH) IN 2017

45 TSOs from 24 MSs sent some details about the publication of information in English, which makes it the indicator with the best rate of feedback out of the 5 TAR NC EM indicators. Out of these TSOs, 5 are from 3 MSs where English is an official language, and this aspect will be considered in the results. The table and figure below present the general situation for all 45 responding TSOs.

For each TSO, the reference used remains the same for each sub-indicator of TAR.4. For example, TSO 1 refers to the same TSO across all sub-indicators of TAR.4.

STATUS OF ENGLISH PUBLICATION FOR EACH INFORMATION ITEM					
	Periodic Information	Periodic Responses	D, M, and SF	Yearly Capacity Auction	Tariff Period
TSO_01	Yes	Yes	Yes	Yes	Yes
TSO_02	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_03	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_04	Yes	Yes	Yes	Yes	Yes
TSO_05	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_06	NRA or ministry	NRA or ministry	Yes	Yes	NRA or ministry
TSO_07	Derogation-related	Derogation-related	Derogation-related	Derogation-related	Derogation-related
TSO_08	No	No	NRA or ministry	Yes	NRA or ministry
TSO_09	No	No	No	Yes	Yes
TSO_10	NRA or ministry	NRA or ministry	NRA or ministry	Yes	Yes
TSO_11	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_12	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_13	Derogation-related	Derogation-related	Derogation-related	Derogation-related	Derogation-related
TSO_14	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_15	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_16	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_17	NRA or ministry	NRA or ministry	NRA or ministry	Yes	Yes
TSO_18	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_19	NRA or ministry	NRA or ministry	NRA or ministry	Yes	Yes
TSO_20	Yes	Yes	Yes	NRA or ministry	NRA or ministry
TSO_21	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_22	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_23	Yes	Yes	Yes	Yes	Yes
TSO_24	NRA or ministry	NRA or ministry	NRA or ministry	Yes	Yes
TSO_25	Yes	Yes	Undecided/not relevant	Undecided/not relevant	No
TSO_26	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_27	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_28	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_29	NRA or ministry	NRA or ministry	NRA or ministry	Undecided/not relevant	Yes
TSO_30	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes
TSO_31	Undecided/not relevant	Undecided/not relevant	Undecided/not relevant	Undecided/not relevant	Undecided/not relevant
TSO_32	Yes	Yes	NRA or ministry	Yes	Yes
TSO_33	Yes	Yes	Yes	Yes	Yes
TSO_34	Yes	Yes	Yes	Yes	Yes
TSO_35	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_36	NRA or ministry	NRA or ministry	NRA or ministry	Yes	Yes
TSO_37	NRA or ministry	NRA or ministry	NRA or ministry	Undecided/not relevant	Undecided/not relevant
TSO_38	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_39	Yes	Yes	NRA or ministry	Yes	Yes
TSO_40	No	No	No	No	No
TSO_41	Undecided/not relevant	Undecided/not relevant	Undecided/not relevant	Undecided/not relevant	Undecided/not relevant
TSO_42	NRA or ministry	NRA or ministry	NRA or ministry	Yes	Yes
TSO_43	Yes	Yes	Yes	Yes	Yes
TSO_44	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry	NRA or ministry
TSO_45	NRA or ministry	NRA or ministry	NRA or ministry	No	Yes

**Table 2:** Status of English publication for each information item



**Figure 36:** TAR.4 results for TSOs in Europe

Results are much contrasted for each sub-indicator about English publication.

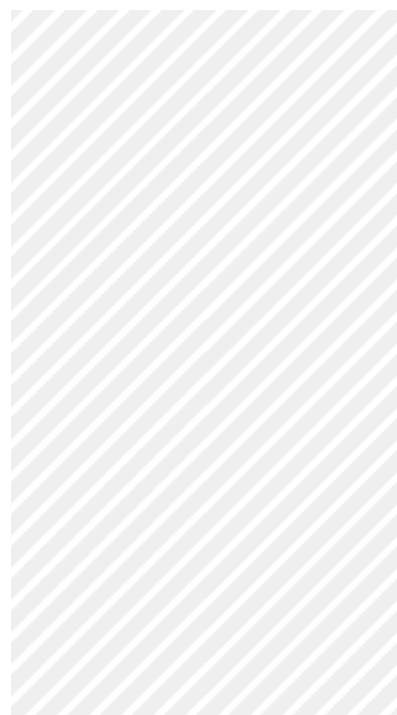
To summarise, regarding the periodic consultation and the NRA consultation on some discounts, multipliers and seasonal factors, many TSOs indicated that the NRA or the ministry will be responsible. In contrast, for the yearly capacity auction and the tariff period consultation, many TSOs put forward that they will publish information in English. For each sub-indicator, more details are provided below.

▲ **Information on the periodic consultation:** periodic consultation will be performed by the NRA or TSO, as decided by the NRA, as per Art. 26 of the TAR NC. In MSs where the NRA is going to be responsible for this consultation, TSOs replied 'N/A' to the question about publication in English, because they cannot commit themselves for something handled by the NRA. In the full survey of TSOs, 28 TSOs indicated 'N/A' because the NRA or ministry will oversee the consultation, 2 TSOs mentioned that the responsibility hasn't been yet attributed (or is not relevant where the TSO indicated that it benefits from special national provisions), and for 2 TSOs an existing or possible derogation may or will apply. 9 TSOs from 8 MSs indicated they would publish information in English (including 4 TSOs from English-speaking MSs). 3 TSOs from 3 MSs said they would not publish information in English<sup>35</sup>). *Summary: a majority of TSOs indicate that the choice of publishing information in English as regards the periodic consultation will be made by NRAs. Where TSOs are responsible for this information item, most of them declare that information in English will be available.*

▲ **Responses to the periodic consultation:** it will also be managed by NRAs or TSOs, as decided by the NRA, also as per Art. 26 of the TAR NC. Results are similar to those for the previous sub-indicator. *Summary: same as for information on the periodic consultation.*

<sup>35</sup>) No further information was given by TSOs.

- Information on the consultation for some discounts, multipliers and seasonal factors:** this consultation is handled by NRAs as set out in Art. 28 of the TAR NC. In their response to ENTSG, 30 TSOs replied 'N/A' because the decision on English publication will be made by the NRA, and 2 TSOs pointed out derogation-related reasons. However, despite this responsibility of NRAs, 8 TSOs from 7 MSs indicated that information for this consultation would be published by the NRA in English (including 4 TSOs from English-speaking MSs). 2 TSOs from 3 MSs declared that their NRA would not publish information in English. However, these TSO statements on the NRA consultation for some discounts, multipliers and seasonal factors are indicative and do not commit TSOs to doing anything, since NRAs are responsible for this consultation. *Summary: since this information item is handled by NRAs, it is logical that most TSOs point out that NRAs will decide whether to publish in English. Among the other TSOs, a significant number indicate that publication will be in English.*
- Information about the yearly capacity auction:** information provision for the yearly CAM auction will depend on whether the NRA or TSO publishes such information, as decided by the NRA and in accordance with Art. 29 of the TAR NC. Compared to previous pieces of information in TAR.4, this one is about a more frequent process, namely a yearly process. These yearly auctions are important for TSOs since they determine long-term bookings and bring some clarity on revenue recovery. Results are significantly different from results for previous pieces of information. Overall uncertainty on the availability of information in English is lower, with 28 TSOs replying 'Yes' or 'No', compared to 13 and 11 respectively for indicators TAR.1 and TAR.3. 5 TSOs stated that the topic is undecided or not relevant due to national provisions or the lack of an IP (in the sense of the CAM NC), and 2 TSOs indicated that existing or possible derogations may play a role. Other than these answers, 17 TSOs from 13 MSs stated that information for yearly auctions would be in English (including 3 TSOs from English-speaking MSs), while 11 TSOs from 2 MSs declared that auction information would be in the national language only. 10 TSOs explained that the NRA or ministry will be in charge of this topic. Interestingly, for non-English speaking MSs only, the number of TSOs declaring that publication will be in English is slightly higher than the number of those declaring it won't. *Summary: a relative majority of TSOs forecast that information will be published in English for the CAM yearly auctions (in some cases, NRAs may be in charge of this choice). This short majority of TSOs which announce a publication in English is not just determined by English-speaking MSs, since the result still prevails when these TSOs are not considered.*
- Information before the tariff period:** the NRA will decide in each MS if it is the TSO or the NRA itself that will handle the publication of information before the tariff period. Compared to information before the periodic consultation, this sub-indicator shows more clarity as to the extent that information will be published in English. 2 TSOs pointed out it is unclear if information for the tariff period will be in English and 1 TSO indicated that this is not relevant due to specific national provisions, while 2 TSOs put forward possible or prevailing derogation-related justifications. But for other respondents, most TSOs declare that they will make information on the tariff period available in English: 26 TSOs from 12 MSs declared such information will be in English (including 3 TSOs from English-speaking MSs), against 2 TSOs from 2 MSs stating that it would be in the national language only. 12 TSOs explained that the NRA or ministry will be in charge of this topic. In contrast with the sub-indicator on yearly auctions, on the whole panel of TSOs there is an absolute majority of TSOs asserting that information will be accessible in English (this result still holds when taking out TSOs from English-speaking MSs). *Summary: this sub-indicator shows that most TSOs announce that publication on the tariff period will be in English. In a minority of MSs where NRAs will be responsible, they will determine if it will be published in English. This sub-indicator shows that information prior to the tariff period should benefit from the highest comparability across Europe, thanks to the availability of an English translation.*



## 4.4.5 RESULTS FOR TAR.5 (MULTIPLIERS) IN 2017

41 TSOs from 23 MSs replied about this indicator. The figures below show the current values of multipliers for TSOs which are not considered as outliers.

- For each TSO, the reference used remains the same for each sub-indicator of TAR.5. For example, TSO 1 refers to the same TSO across all sub-indicators of TAR.5.

**Multipliers for quarterly products:** out of 41 TSOs, 3 may be considered as outliers because their values are significantly outside the range allowed by Article 13 of the TAR NC, i.e. between 1 and 1.5 (TSO\_11, TSO\_14 and TSO\_15). It was assumed that outliers have averages which are lower than 0.5 or higher than 2; average of these outliers are respectively 38.7, 38.7 and 0.4. Therefore, they aren't shown on the figure below. This figure indicates for each TSO their minimum and maximum quarterly multiplier, and it displays for the whole group of TSOs an average of the average multiplier provided by each non-outlier TSOs (the black line). This average quarterly multiplier is **1.18** among non-outlier TSOs. Most non-outlier TSOs are always in the range, against only 7 TSOs with a maximum multiplier above the upper limit, and none below the lower limit. TSOs currently outside the range will have to adjust to comply with it in the next tariff period after AD3 on 31 May 2019.

Multipliers for Quarterly Products

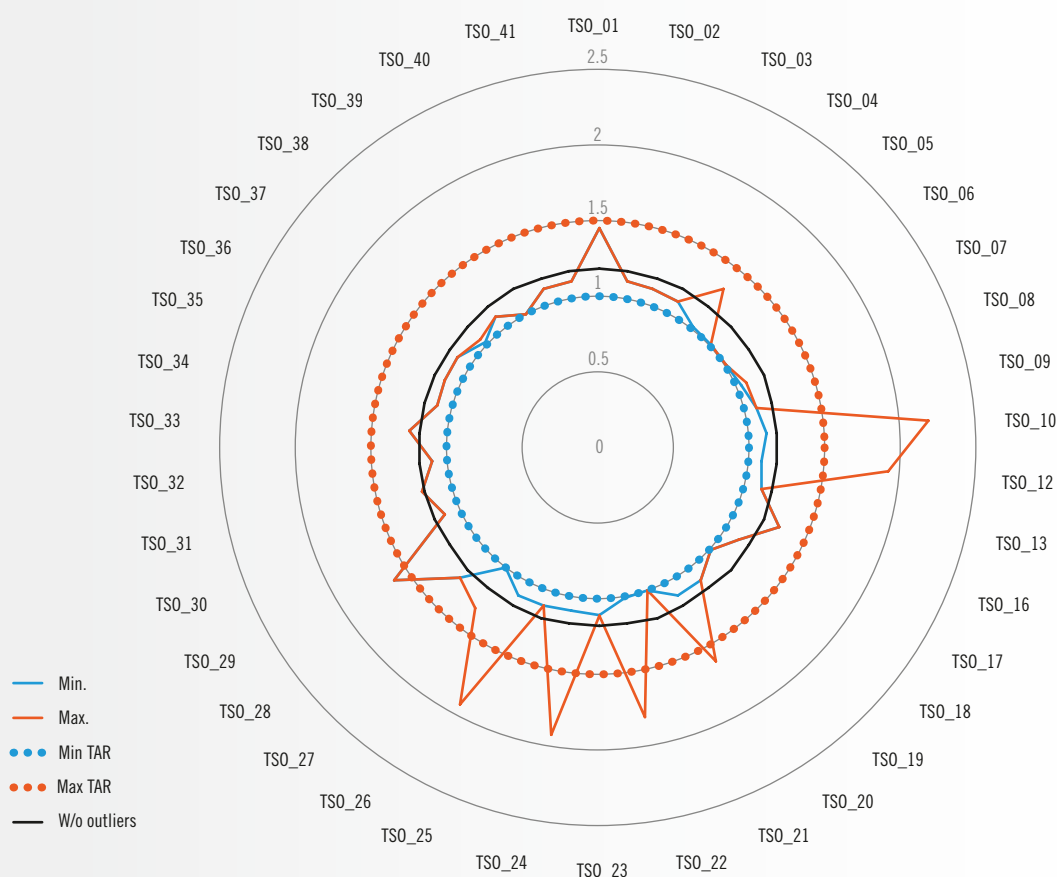
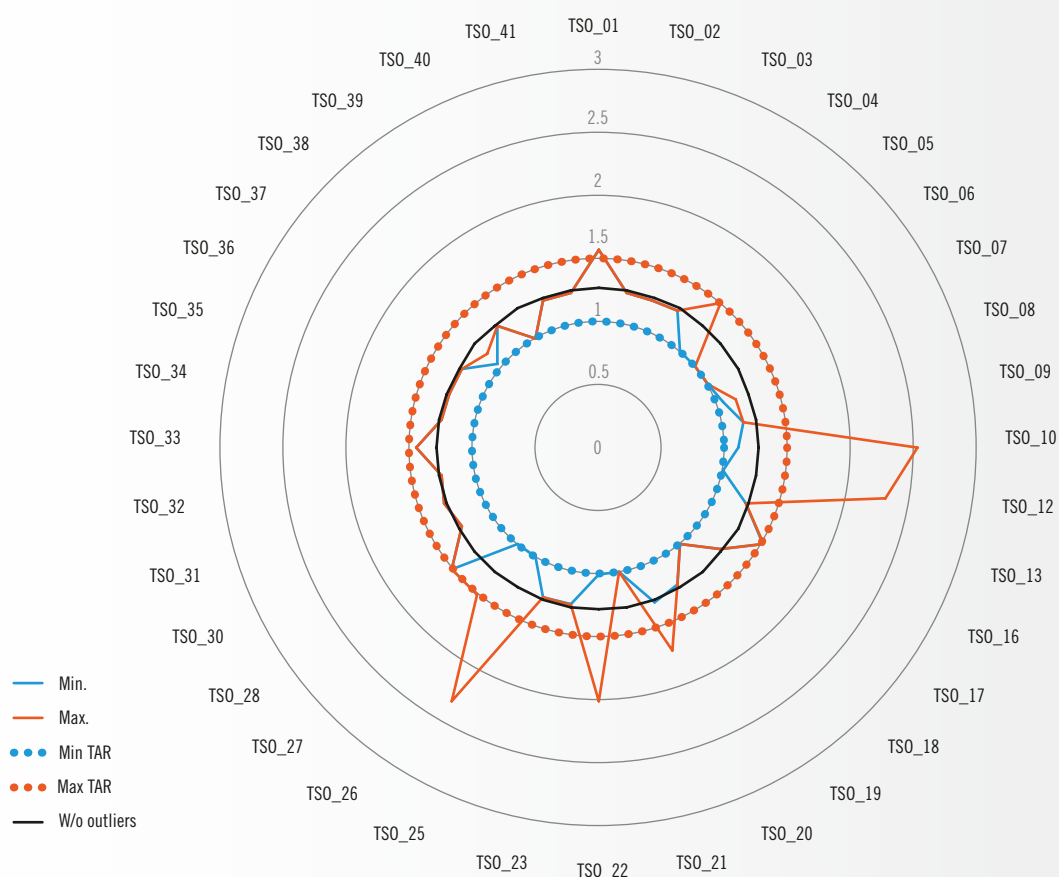


Figure 37: TAR.5 sub-indicator on quarterly multipliers for TSOs in Europe



▲ **Multipliers for monthly products:** out of 41 TSOs which replied, 5 may be considered as outliers (TSO\_11, TSO\_14, TSO\_15, TSO\_24, and TSO\_29) because their values are significantly outside the range allowed by Article 13 of the TAR NC, i.e. between 1 and 1.5. It was assumed that outliers have averages which are lower than 0.5 or higher than 2; average of these outliers are 12.9, 12.9, 0.1, 2.2 and 2.4. Outliers are not depicted on the figure below. This figure indicates for each TSO their minimum and maximum monthly multiplier, and it displays for the whole group of TSOs an average of the average multiplier provided by each non-outlier TSOs (the black line). This average monthly multiplier is **1.27** among non-outlier TSOs. Most non-outlier TSOs are always in the range, against only 6 with a multiplier above the upper TAR NC limit, and none below the lower limit. TSOs currently outside the range will have to adjust to comply with it in the next tariff period after AD3 on 31 May 2019.

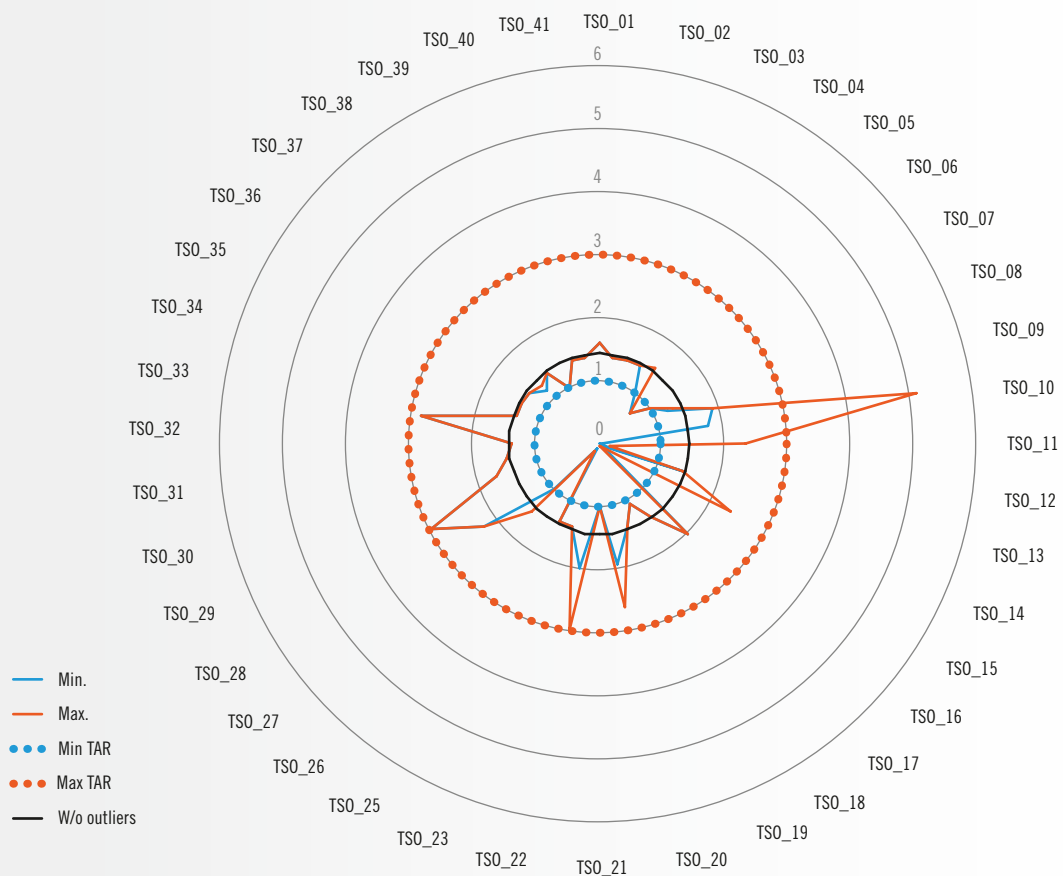
### Multipliers for Monthly Products



**Figure 38:** TAR.5 sub-indicator on monthly multipliers for TSOs in Europe

▲ **Multipliers for daily products:** out of 41 TSOs which replied, 1 may be considered as an outlier (TSO\_24) because its values are significantly outside the standard range allowed by Article 13 of the TAR NC, i.e. between 1 and 3, although this range may be any non-zero positive number ‘in duly justified cases’. It was assumed that outliers have averages which are higher than 4; TSO\_24 has an average of 4.4. TSO\_24 is not depicted on the figure below. This figure indicates for each TSO their minimum and maximum daily multiplier, and it displays for the whole group of TSOs an average of the average multiplier provided by all TSOs other than TSO\_02 (the black line). This average daily multiplier is **1.43** among non-outlier TSOs. Most non-outlier TSOs are always in the range, against only TSO\_10 with a multiplier above the TAR NC upper limit of 3, and 6 TSOs below the lower limit of 1. However, these TSOs may not have to change their multipliers in relation with AD3 of the TAR NC on 31 May 2019, in case such values are ‘duly justified’.

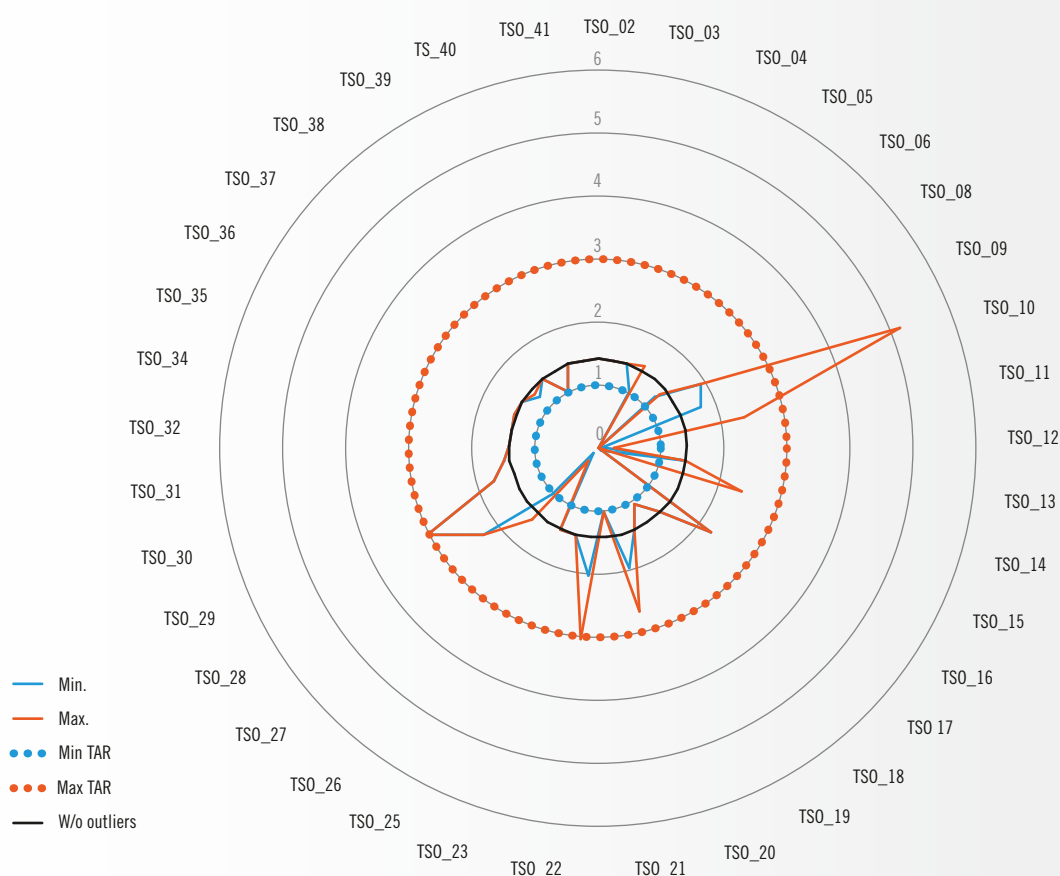
**Multipliers for Daily Products**



**Figure 39:** TAR.5 sub-indicator on daily multipliers for TSOs in Europ

▲ **Multipliers for within-day products:** out of 41 TSOs, 3 TSOs were excluded from the analysis of the WD products because these TSOs charge within-day products as daily products, which is not allowed by the TAR NC (TSO\_01, TSO\_07 and TSO\_33). These TSOs were taken out of the analysis since they are not fully comparable with other TSOs. However, it is not currently prohibited to price within-day capacity as daily products, since provisions on within-day tariffs are part of Chapter III of the TAR NC, whose application date is on 31 May 2019. As such, these products cannot be compared directly to WD products of other TSOs. Out of the remaining 38 TSOs, 1 may be considered as an outlier (TSO\_24) because its values are too much outside the standard range allowed by Article 13 of the TAR NC, i.e. between 1 and 3, although this range may be any non-zero positive number 'in duly justified cases'. It was assumed that outliers have averages which are higher than 4; TSO\_24 has an average of 4.4. TSO\_24 is not depicted on the figure below. This figure indicates for each TSO their minimum and maximum within-day multiplier, and it displays for the whole group of TSOs an average of the average multiplier provided by all TSOs other than TSO\_24 (the black line). This average within-day multiplier is **1.39** among non-outlier TSOs. Most non-outlier TSOs are always in the range, with only TSO\_10 with a multiplier above the TAR NC upper limit of 3, and 6 TSOs below the lower limit of 1. However, these TSOs may not have to change their multipliers in relation with AD3 of the TAR NC on 31 May 2019, in case such values are 'duly justified'.

### Multipliers for Within-day Products



**Figure 40:** TAR.5 sub-indicator on within-day multipliers for TSOs in Europe

**Summary on TAR.5:** overall, most TSOs already comply with multiplier ranges for all capacity products. For TSOs currently out of the ranges, changes may or will be necessary for compliance with AD3 (noting the possible deviation from standard ranges for daily and within-day products in 'duly justified cases' as per the TAR NC).

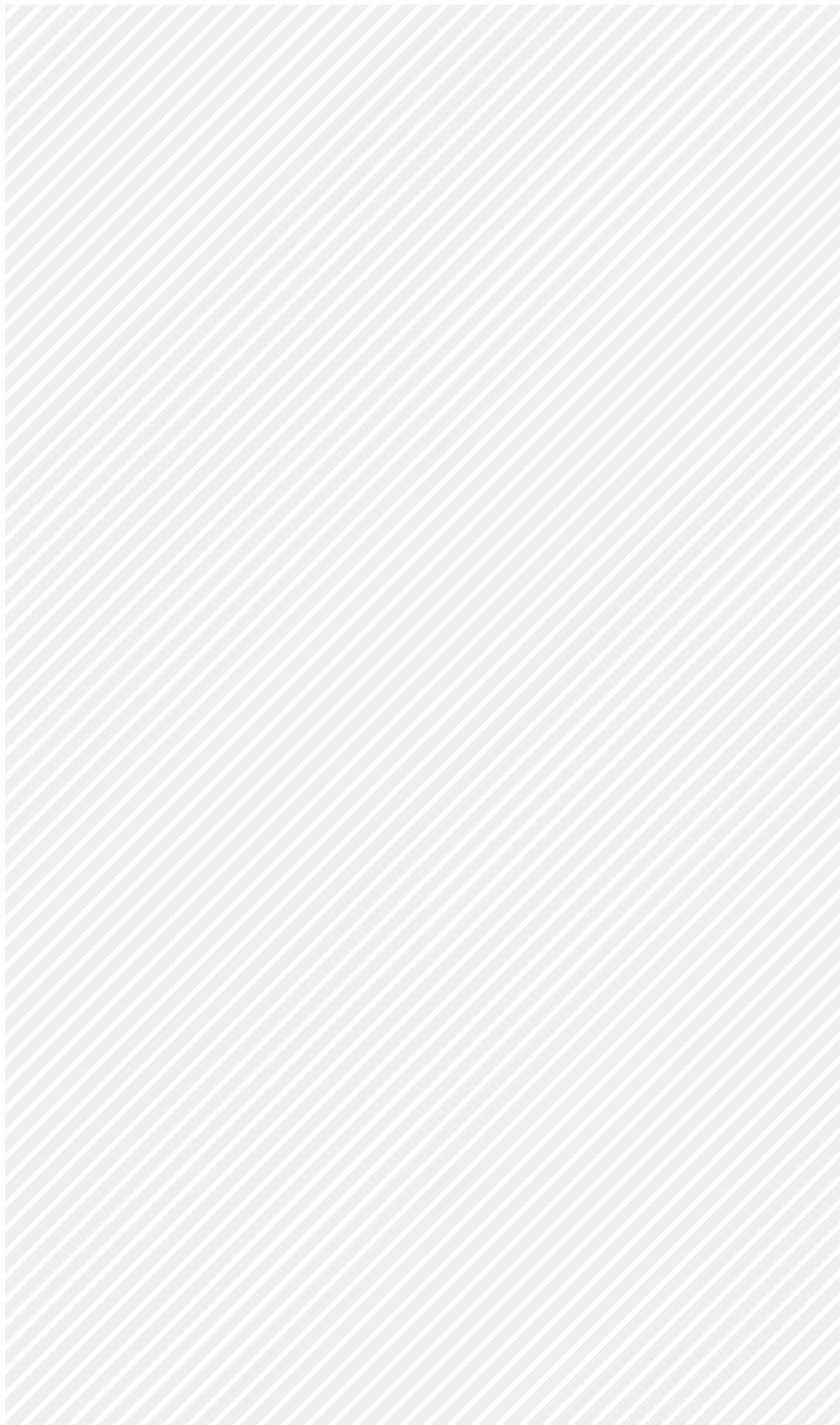
## 4.5 Conclusion

### EFFECT MONITORING

In terms of the 5 EM indicators used in this EM report 2017, the following conclusions can be drawn:

- ▲ **TAR.1 (under-/over-recovery):** the evolution is mixed in terms of revenue recovery, with most TSOs reporting mixed results as regards the level and the variability of the regulatory account balance since 2013. However, these results correspond to early years and stem from a limited number of TSOs participating in this indicator. Data to be collected in future years will be useful to verify the impact of the TAR NC on revenue recovery.
- ▲ **TAR.2 (tariff changes):** the pattern followed in Europe shows a moderate increase in tariffs across all TSOs between the last 2 tariff periods, with some special cases due to radical changes in capacity-based and commodity-based tariffs. Longer time series will be necessary to check which effect the TAR NC will have on tariff changes.
- ▲ **TAR.3 (bookings):** for most TSOs taking part in this EM report, the share of yearly capacity products remains dominant in recent years. Nonetheless, between gas years 2014–15 and 2015–16 a slight shift towards short-term products was observed in many TSOs and it is especially beneficial to daily products. This trend will have to be checked in future EM reports.
- ▲ **TAR.4 (publication in English):** across the 5 sub-indicators used for TAR.4, it appears that the availability of English translations will mainly depend on the decision of NRAs as regards the periodic consultation and the consultation on some discounts, multipliers and seasonal factors. More than one third of TSOs highlighted that an English version would be available for the yearly auctions, and more than a half of TSOs stated that an English version would be available for the tariff periods.
- ▲ **TAR.5 (multipliers):** considering all types of short-term products, most TSOs already comply with the ranges of multipliers which are defined in the TAR NC. A few TSOs currently use multipliers which are sometimes significantly out of the ranges. For the tariff period following AD3 of the TAR NC, they will have to adjust to these ranges (for quarterly and monthly multipliers), or they will have to provide a due justification for this level (for daily and within-day multipliers).

These baseline results paint a picture of the situation of European TSOs at the start of the implementation of the TAR NC.







# Annexes

image courtesy of Fluxys



# Annex A

LIST OF PARTICIPATING EUROPEAN TSOs		
	European TSOs covered in the implementation monitoring part of the report	European TSOs covered in the effect monitoring part of the report
Austria	Gas Connect Austria GmbH	Gas Connect Austria GmbH
	Trans Austria Gasleitung GmbH	Trans Austria Gasleitung GmbH
Belgium	Fluxys Belgium SA	Fluxys Belgium SA
Bulgaria	Bulgartransgaz EAD	Bulgartransgaz EAD
Croatia	Plinacro	Plinacro
Czech Republic	NET4GAS s.r.o.	NET4GAS s.r.o.
Denmark	Energinet	Energinet
Estonia	Elering AS (derogation)	Elering AS (derogation)
Finland	Gasum Oy (derogation)	Gasum Oy (derogation)
France	GRTgaz	GRTgaz
	TIGF SA	TIGF SA
Germany	bayernets GmbH	bayernets GmbH
	Fluxys Deutschland GmbH	Fluxys Deutschland GmbH
	Fluxys Tenp GmbH	Fluxys Tenp GmbH
	GASCADE Gastransport GmbH	GASCADE Gastransport GmbH
	Gastransport Nord GmbH	Gastransport Nord GmbH
	Gasunie Deutschland Transport Services GmbH	Gasunie Deutschland Transport Services GmbH
	GRTgaz Deutschland GmbH	GRTgaz Deutschland GmbH
	jordgas Transport GmbH	jordgas Transport GmbH
	Lubmin-Brandov Gastransport GmbH	no data provided
	NEL Gastransport GmbH	NEL Gastransport GmbH
	Nowega GmbH	Nowega GmbH
	ONTRAS Gastransport GmbH	ONTRAS Gastransport GmbH
	Opal Gastransport GmbH & Co. KG	no data provided
	Open Grid Europe GmbH	Open Grid Europe GmbH
	terranets bw GmbH	terranets bw GmbH
	Thyssengas GmbH	Thyssengas GmbH
Greece	DESFA S.A.	DESFA S.A.
Hungary	FGSZ Ltd	FGSZ Ltd
Ireland	Gas Networks Ireland	Gas Networks Ireland
Italy	Snam Rete Gas S.p.A.	Snam Rete Gas S.p.A.
	Infrastrutture Trasporto Gas S.p.A.*	Infrastrutture Trasporto Gas S.p.A.*
	Società Gasdotti Italia S.p.A.*	Società Gasdotti Italia S.p.A.*
Latvia	Conexus Baltic Grid	Conexus Baltic Grid
Lithuania	AB Amber Grid	AB Amber Grid
Luxembourg	Creos Luxembourg S.A. (derogation)	Creos Luxembourg S.A. (derogation)
the Netherlands	BBL Company V.O.F.	BBL Company V.O.F.
	Gasunie Transport Services B.V.	Gasunie Transport Services B.V.
Poland	GAZ-SYSTEM S.A.	GAZ-SYSTEM S.A.
	GAZ-SYSTEM ISO (EuRoPol GAS S.A)	no data provided
Portugal	REN – Gasodutos, S.A.	REN – Gasodutos, S.A.
Romania	Transgaz SA	Transgaz SA
Slovakia	eustream a.s.	eustream a.s.
Slovenia	Plinovodi d.o.o.	Plinovodi d.o.o.
Spain	Enagás S.A	Enagás S.A
	Regasificadora del Noroeste S.A	Regasificadora del Noroeste S.A
Sweden	Swedegas AB	Swedegas AB
United Kingdom	GNI (UK) Limited	GNI (UK) Limited
	Interconnector UK Ltd.	Interconnector UK Ltd.
	National Grid Gas plc	National Grid Gas plc
	Premier Transmission Ltd.	Premier Transmission Ltd.

\* As per their national regulatory framework, tariffs are calculated and published by a third TSO from the same MS who is responsible for tariff derivation – for this report, the information for these two TSOs is contained in the information sent by the third TSO.

# Annex B

Links to the Article 29 and 30 information published on the TSO/NRA website and a guide to the information published on ENTSOGs Transparency Platform

TSO/NRA WEBSITE		
	European TSOs covered in the implementation monitoring part of the report	Link to the Article 29 and 30 information published on the TSO/NRA website
Austria	Gas Connect Austria GmbH	<a href="#">NRA website</a>
	Trans Austria Gasleitung GmbH	<a href="#">NRA website</a>
Belgium	Fluxys Belgium SA	<a href="#">TSO website</a>
Bulgaria	Bulgartransgaz EAD	<a href="#">TSO website</a>
Croatia	Plinacro	<a href="#">TSO website</a>
Czech Republic	NET4GAS s.r.o.	<a href="#">TSO website</a>
Denmark	Energinet	<a href="#">TSO website</a>
Estonia	Elering AS (derogation)	<a href="#">TSO website</a>
Finland	Gasum Oy (derogation)	
France	GRTgaz	<a href="#">TSO website</a>
	TIGF SA	<a href="#">TSO website</a>
Germany	bayernets GmbH	<a href="#">TSO website</a>
	Fluxys Deutschland GmbH	<a href="#">TSO website</a>
	Fluxys Tenp GmbH	<a href="#">TSO website</a>
	GASCADE Gastransport GmbH	<a href="#">TSO website</a>
	Gastransport Nord GmbH	<a href="#">TSO website</a>
	Gasunie Deutschland Transport Services GmbH	<a href="#">TSO website</a>
	GRTgaz Deutschland GmbH	<a href="#">TSO website</a>
	jordgas Transport GmbH	<a href="#">TSO website</a>
	Lubmin-Brandov Gastransport GmbH	<a href="#">TSO website</a>
	NEL Gastransport GmbH	<a href="#">TSO website</a>
	Nowega GmbH	<a href="#">TSO website</a>
	ONTRAS Gastransport GmbH	<a href="#">TSO website</a>
	Opal Gastransport GmbH & Co. KG	<a href="#">TSO website</a>
	Open Grid Europe GmbH	<a href="#">TSO website</a>
	terranets bw GmbH	<a href="#">TSO website</a>
	Thyssengas GmbH	<a href="#">TSO website</a>
Greece	DESFA S.A.	<a href="#">TSO website</a>
Hungary	FGSZ Ltd	<a href="#">TSO website</a>
Ireland	Gas Networks Ireland	<a href="#">TSO website</a>
Italy	Snam Rete Gas S.p.A.	<a href="#">TSO website</a>
	Infrastrutture Trasporto Gas S.p.A.	
	Società Gasdotti Italia S.p.A.	
Latvia	Conexus Baltic Grid	<a href="#">TSO website</a>
Lithuania	AB Amber Grid	<a href="#">TSO website</a>

TSO/NRA WEBSITE		
	European TSOs covered in the implementation monitoring part of the report	Link to the Article 29 and 30 information published on the TSO/NRA website
Luxembourg	Creos Luxembourg S.A. (derogation)	
the Netherlands	BBL Company V.O.F.	<a href="#">TSO website</a>
	Gasunie Transport Services B.V.	<a href="#">NRA website</a>
Poland	GAZ-SYSTEM S.A.	<a href="#">TSO website</a>
	GAZ-SYSTEM ISO (EuRoPol GAS S.A)	<a href="#">TSO website</a>
Portugal	REN – Gasodutos, S.A.	<a href="#">NRA website</a>
Romania	Transgaz SA	<a href="#">TSO website</a>
Slovakia	eustream a.s.	<a href="#">TSO website</a>
Slovenia	Plinovodi d.o.o.	<a href="#">TSO website</a>
Spain	Enagás S.A	<a href="#">TSO website</a>
	Regasificadora del Noroeste S.A	
Sweden	Swedegas AB	<a href="#">TSO website</a>
United Kingdom	GNI (UK) Limited	<a href="#">TSO website</a>
	Interconnector UK Ltd.	<a href="#">TSO website</a>
	National Grid Gas plc	<a href="#">TSO website</a>
	Premier Transmission Ltd.	<a href="#">TSO website</a>

## ENTSOs Transparency Platform – Link to Published Information on TSO or NRAs Website

ENTSOs Transparency Platform has a link for all TSOs to the information published on their website, or their NRAs website, depending who has publication responsibility. This link can be accessed by going into ENTSOGs Transparency Platform using the following link:

<https://transparency.entsog.eu/> – click ‘Operators’ on the top toolbar – click on the panel for the TSO you are looking for information on – under ‘Links’ click ‘Tariff information page’ – this will bring you directly to the TSOs or NRAs website.

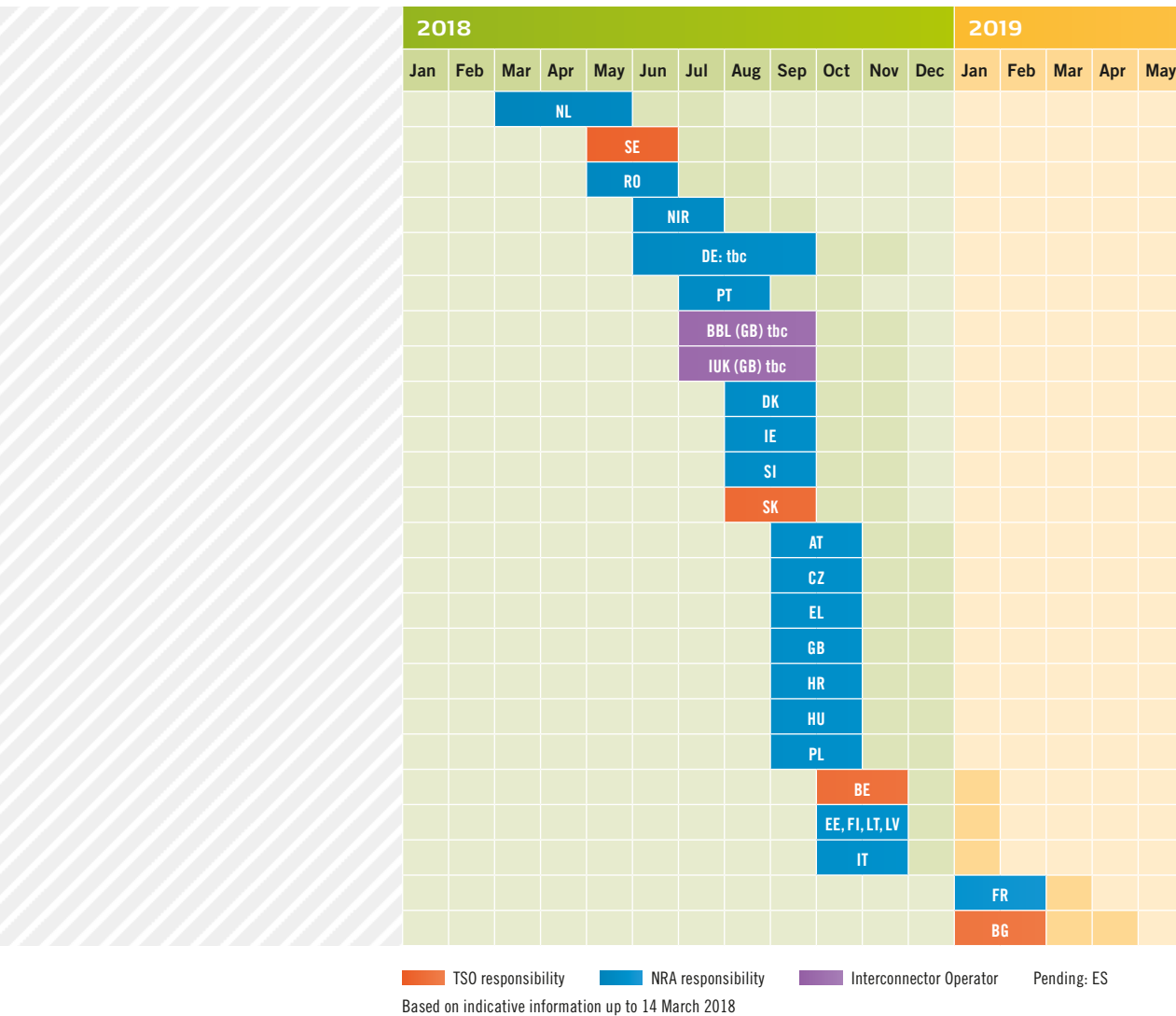
## ENTSOs Transparency Platform – Standardised Table

ENTSOs Transparency Platform has a standardised table which publishes the information for all TSOs on the reserve prices for standard capacity products for firm capacity and for standard capacity products for interruptible capacity, and the flow-based charge where applied. Data can be accessed per TSO or IP directly from ENTSOGs Transparency Platform using the following link:

<https://transparency.entsog.eu/#/points/data?points=> – click the ‘Tariff Data’ tab, enter the relevant TSO or IP name into the search box, and fill in the relevant date range on the right-hand side.

# Annex C

Final consultation (Art. 26) – provisional timelines and responsibility per MS





# Annex D

PAYABLE PRICE CURRENTLY OFFERED BY TSOs		
	European TSOs covered in the implementation monitoring report	Payable price currently offered by TSOs
Austria	Gas Connect Austria GmbH	Floating payable price
	Trans Austria Gasleitung GmbH	Floating payable price
Belgium	Fluxys Belgium SA	Floating payable price
Bulgaria	Bulgartransgaz EAD	Fixed payable price
Croatia	Plinacro	Floating payable price
Czech Republic	NET4GAS s.r.o.	Floating and Fixed payable price
Denmark	Energinet	Floating payable price
Estonia	Elering AS (derogation)	
Finland	Gasum Oy (derogation)	
France	GRTgaz	Floating payable price
	TIGF SA	Floating payable price
Germany	bayernets GmbH	Floating payable price
	Fluxys Deutschland GmbH	Floating payable price
	Fluxys Tenp GmbH	Floating payable price
	GASCADE Gastransport GmbH	Floating payable price
	Gastransport Nord GmbH	Floating payable price
	Gasunie Deutschland Transport Services GmbH	Floating payable price
	GRTgaz Deutschland GmbH	Floating payable price
	jordgas Transport GmbH	Floating payable price
	Lubmin-Brandov Gastransport GmbH	Floating payable price
	NEL Gastransport GmbH	Floating payable price
	Nowega GmbH	Floating payable price
	ONTRAS Gastransport GmbH	Floating payable price
	Opal Gastransport GmbH & Co. KG	Floating payable price
	Open Grid Europe GmbH	Floating payable price
	terranets bw GmbH	Floating payable price
	Thyssengas GmbH	Floating payable price
Greece	DESFA S.A.	Floating payable price
Hungary	FGSZ Ltd	Floating and Fixed payable price
Ireland	Gas Networks Ireland	Floating payable price
Italy	Snam Rete Gas S.p.A.	Floating payable price
	Infrastrutture Trasporto Gas S.p.A.	Floating payable price
	Società Gasdotti Italia S.p.A.	Floating payable price
Latvia	Conexus Baltic Grid	Floating payable price
Lithuania	AB Amber Grid	Floating payable price
Luxembourg	Creos Luxembourg S.A. (derogation)	
the Netherlands	BBL Company V.O.F.	Fixed payable price
	Gasunie Transport Services B.V.	Floating payable price
Poland	GAZ-SYSTEM S.A.	Floating payable price
	GAZ-SYSTEM ISO (EuRoPol GAS S.A)	
Portugal	REN – Gasodutos, S.A.	Floating payable price
Romania	Transgaz SA	Floating payable price
Slovakia	eustream a.s.	Fixed payable price
Slovenia	Plinovodi d.o.o.	Floating payable price
Spain	Enagás S.A	Floating payable price
	Regasificadora del Noroeste S.A	Floating payable price
Sweden	Swedegas AB	Floating payable price
United Kingdom	GNI (UK) Limited	Floating payable price
	Interconnector UK Ltd.	Fixed payable price
	National Grid Gas plc	Floating payable price
	Premier Transmission Ltd.	Floating payable price



# Abbreviations

<b>ABRR</b>	Average regulatory account balance to the average allowed revenue ratio
<b>ACER</b>	Agency for the Cooperation of Energy Regulators established by Regulation (EC) No 713/2009
<b>AD</b>	application date
<b>CAM NC</b>	Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013 (OJ L 72, 17.3.2017, p. 1)
<b>CWD</b>	capacity-weighted distance
<b>EC</b>	the European Commission
<b>ECB</b>	European Central Bank
<b>EM</b>	Effect Monitoring
<b>ENTSO G</b>	European Network of Transmission System Operators for Gas
<b>EU</b>	the European Union
<b>Gas Directive</b>	Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (OJ L 211, 14.8.2009, p. 94)
<b>Gas Regulation</b>	Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 (OJ L 211, 14.8.2009, p. 36)
<b>IDoc</b>	Implementation Document for the Network Code on Harmonised Transmission Tariff Structures for Gas
<b>IM</b>	Implementation Monitoring
<b>IP</b>	interconnection point, as defined by Article 3(2) of the CAM NC
<b>MS(s)</b>	Member State(s)
<b>NRA</b>	national regulatory authority
<b>RPM</b>	reference price methodology
<b>SDBBR</b>	Standard deviation of balance of the average allowed revenue ratio
<b>TAR NC</b>	the Network Code on Harmonised Transmission Tariff Structures for Gas
<b>TP</b>	Transparency Platform
<b>TS</b>	Transmission Services



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