Annex 1: Overview of multiplier levels

The following table presents the multipliers[1] applied to reference prices during the gas year 2020 – 2021 in order to obtain the reserve prices of Within-Day, Daily, Monthly and Quarterly capacity products in each Member State. The same multipliers are usually uniformly applied in each Member States[2].

Gas year 2020-2021		Multiplier levels for the distinct non-yearly capacity products (Article 13 of the NC TAR)			
Country[3]	Direction	Within day	Daily	Monthly	Quarterly
AT	Entry	1.20	1.20	1.05	1.03
AT	Exit	1.3	1.3	1.15	1.05
BE	Entry and exit	1.45	1.45	1.45	1.45
BG	Entry and exit	2.50	2.38	1.40	1.30
CZE	Entry and exit	1.70	1.50	1.25	1.10
DE	Entry and exit	2.00	1.40	1.25	1.10
DK	Entry and exit	1.39	1.39	1.25	1.10
ES	Entry and exit	5.06	3.01	1.46	1.39
FR	Entry and exit	1.50	1.50	1.50	1.33
GR	Entry and exit	3.00	3.00	1.48	1.38
HR	Entry and exit	3.00	3.00	1.50	1.35
HU	Entry and exit	3.00	1.90	1.17	1.07
IE	Entry and exit	2.79	2.79	1.50	1.35
IT	Entry and exit	1.50	1.50	1.30	1.20
LT	Entry and exit	1.50	1.50	1.25	1.10
LV	Entry and exit	1.70	1.50	1.25	1.10
NL	Entry and exit	1.84	1.75	1.50	1.25
PL - Gas-System	Entry and exit	2.18	2.18	1.44	1.26
PL - Gas-System (ISO)	Entry and exit	1.95	1.95	1.30	1.10
PT	Entry and exit	2.20	2.00	1.50	1.30
RO	Entry and exit	2.77	2.77	1.38	1.20
SI	Entry and exit	2.80	2.75	1.45	1.40
SK	Entry and exit	2.99	2.99	2.40	1.60

[1] These figures are yearly averages. They do not take into account seasonal factors (where such factors apply).
[2] There are two exceptions (Austria and Poland).
[3] Some Member States do not have interconnection points where multipliers are applied.

Annex 2: Analysis and Evaluation of responses

1. Introduction

Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a Network Code on harmonised transmission tariff structures for gas ('NC TAR') introduced new provisions on quarterly, monthly, daily and within-day multipliers that are applicable for the calculation of short-term capacity products.

The NC TAR offered the possibility for the Agency to issue a recommendation to cap the multipliers used to calculate the reserve prices of day-ahead ('DA') and within-day ('WD') capacity products to 1.5. In order to assess this option, the Agency used several instruments to assess whether lowering the multiplier cap would be appropriate. The Agency's assessment is presented in this Annex.

Reading guide

Section 2 provides an evaluation of the responses to the public consultation. Chapter 3 focusses on an analysis of the variability of bookings patterns at different interconnection points ('IPs'), while Chapter 4 substantiates the decision of the Agency not to recommend a cap applicable to DA and WD multipliers of 1.5. Chapter 5 finally presents good practices that should be implemented by NRAs when setting multipliers pursuant to Article 28 of the NC TAR.

2. Public consultation - Evaluation of responses

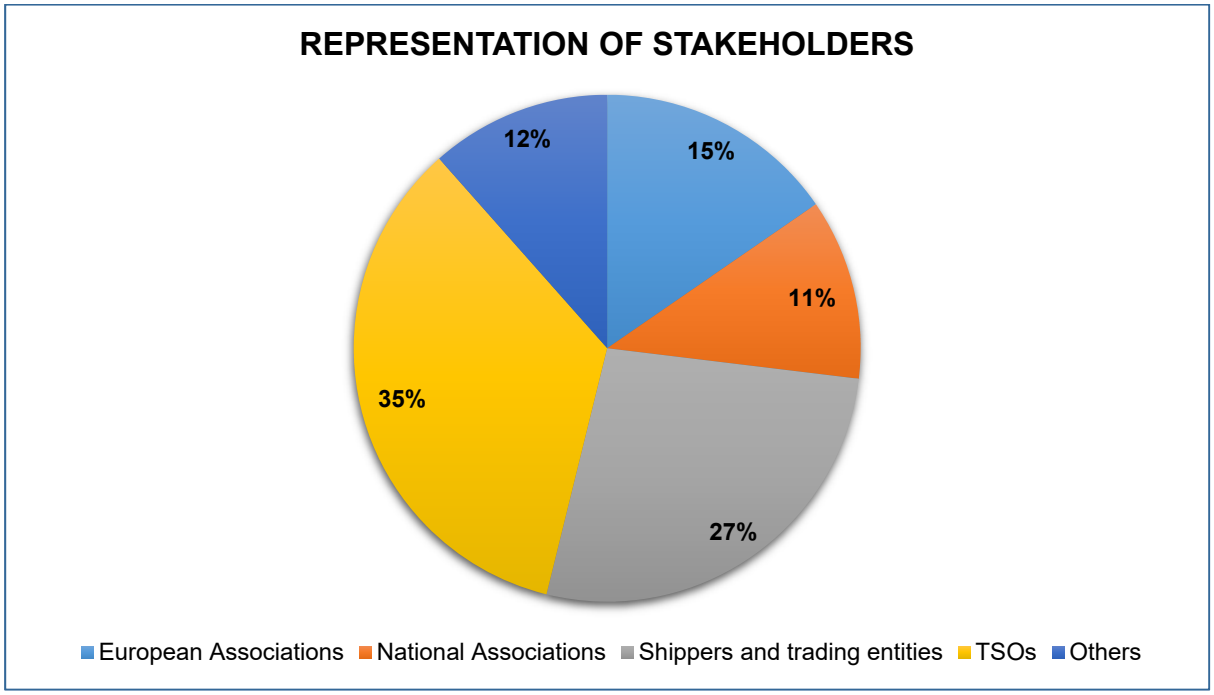
The Agency carried out a public consultation that was launched on 16 November 2020 and closed on 9 December 2020. The purpose of this exercise was to gather stakeholders' views on the impact that multipliers had on their commercial activity related to the use of the natural gas networks in the European Union.

2.1. About the respondents

The Agency received 26 responses to the consultation, which were duly published on 5 February 2021. The respondents to the consultation belonged to:

- 4 European associations,
- 3 national associations,
- 7 shippers or energy trading entities,
- 9 TSOs,
- 3 respondents belonging to other categories (one energy exchange, one gas producer, one power generation and supply company).

Figure 1 below presents the different categories of respondents.



2.2. Evaluation

Question 1	What role do short-term capacity products (DA and WD) play in your capacity booking strategy (balancing activities, market arbitrage, supply profiling…)?	ACER's view
Number of respondents	20 responses (out of 26 respondents)	
Positions and Rationale	One third of respondents emphasized the important role of DA and WD products in capacity booking strategy for shippers as they form the basis of portfolio strategy. DA and WD products are considered important to ensure a sufficient market liquidity and price convergence between hubs. Affordable DA and WD products foster competition. They are also necessary to cover balancing needs. Some respondents add that these product are even more important for companies active in the electricity generation sector, with a high need for flexibility. On the contrary, other respondents consider that DA and WD products have limited utility (to allow market arbitrage, or to cover balancing needs). Their booking strategy rather rely on long term products. Several respondents have nuanced views. They argue that there is a trade-off between short term and long-term bookings, and that adjusting multipliers will change the optimal booking pattern. They also acknowledge that their booking strategy depends on specific circumstances; for instance, short terms bookings are favoured if there is no risk of congestion or where gas hubs are liquid. Some respondents argued that lower DA and WD multipliers and an increasing importance of DA and WD bookings could induce additional constraints for TSOs (balancing activities, management of the capacity booking planning).	The Agency notes that the relative importance of DA and WD products in a booking strategy depends on the type of stakeholders and the circumstances. Shippers and traders active in liquid markets and with uncongested IPs tend to favour DA and WD products. On the contrary, gas producers or shippers active in less liquid markets rather rely on long term bookings. The Agency also understands the particular importance of DA and WD for electricity generations.

Question 2	Have you observed that DA and WD multipliers impact booking behaviour and booking strategies (could be your own booking strategy or those of other market players)? For instance, have you observed that low DA and WD multipliers can shift contracted capacity from yearly capacity products to shorter-term capacity products? Please explain your reasoning:	ACER's view
Number of respondents	26 responses	
Yes	**16 respondents**	
Other	**6 respondents**	
No	**4 respondents**	
Positions and Rationale	A majority of respondents consider that multipliers visibly impact shippers' booking strategies. If perceived too high, multipliers deter short-term bookings. However, they also note that the rising trend short-term bookings is not only driven by the effects of lowered multipliers, but has been intensified by ongoing developments in EU gas markets, such as booking strategies turning more flexible, markets' supply diversification, lowering congestion and restraining demand expectations. A second group of respondents further temper the effects of short-term tariff multipliers, indicating that the commodity market circumstances are more relevant than the multiplier values to explain shifting booking trends, but also that short-term multipliers impacts are chiefly visible to limited periods. A third group underlines that tariff multipliers' effects cannot be isolated, due to the parallel modifications experienced by tariff structures' in terms of Entry/Exit split or pricing of interruptible products. They warn about the unpredictable - and even possibly not optimal outcome - if setting an EU cap for short-term multipliers.	The Agency understands that DA and WD multipliers have a significant impact. However, it is also clear that other parameters and circumstances influence booking strategies. Overall, it is difficult to assess the effects of the multipliers (or their capping)at a European level. The Agency suggests that instead of setting a lower cap for the DA and WD multipliers, a better way would be to evaluate multiplier ranges and their trade-offs on an IP by IP level building a substantive analysis on the potential ranges before setting multipliers at a given IP.
Other points of note	Some respondents consider that it would be more suitable to arrange short-term products' tariffs as the referential ones for all products' tariff system setting (e.g. offering possible discounts to longer-term bookings). In their opinion, this approach would better reflect the actual trading and IP booking activity observed across EU gas markets.	

Question 3	**Have you observed that DA and WD multipliers impact transmission services revenue and its recovery? In particular, could low DA and WD multipliers induce under-recoveries of TSOs' revenues on a transitory basis (in most systems such under-recoveries are systematically rolled to next years by revenue reconciliation mechanisms)? Please explain your reasoning:**	**ACER's view**

Number of respondents	25 responses (out of 26 respondents)	
Yes	**9 respondents**	
Other	**9 respondents**	
No	**7 respondents**	
Positions and Rationale	A first group of respondents considers that, to the extent that the contracted capacities at each entry and exit point are correctly forecasted, the TSO's regulated revenues will be fully recovered. However, the shift to more short-term capacity bookings makes it harder to forecast capacity bookings and so increases the risk of over- or under-recoveries. The amounts to be cleared through the revenue reconciliation mechanism could then increase. A second group confirms that only long-term bookings provide the stability and predictability to the gas system and secure the revenue for the TSOs. An increased share of short-term bookings would induce more tariff volatility. A third group adds that more optimised and profiled bookings at IPs would lead TSOs to recover the missing revenues via tariff changes (e.g. increased reference prices, modified entry-exit split, or tariffs increase in a subsequent years). These evolutions could influence the costs paid by end consumers. A fourth group considers that low DA and WD multipliers could induce cross-subsidisations among domestic and interconnection points and discrimination between network users with base-load or peak-load booking patterns.	As most respondents, the Agency also considers that DA and WD multipliers do not significantly impact TSOs' revenues and their recovery (or only in a transitory manner if the revenue recovery mechanism has to be reconciled). Low DA and WD multipliers can however impact the stability of transmission tariffs. A change of these multipliers can induce cross-subsidies between holders of short term and long term capacity products, between current and future users, between holders of cross-border capacities and end consumers. The Agency takes note of these concerns. Yet, benefits may also arise from trade and more competition. In this context, the Agency considers that an appropriate balance shall be stricken between stability and flexibility. This balance therefore is likely to be better assessed on a case-by-case basis, which is an approach the Agency promotes in its recommendation.

Question 4	Have you observed significant changes in DA and WD multipliers in the 2016-20 period? Please explain your reasoning:	ACER's view
Number of respondents	25 responses (out of 26 respondents)	
Yes	**13 respondents**	
Other	**5 respondents**	
No	**7 respondents**	
Positions and Rationale	Most respondents consider that the DA and WD multipliers have been stable over the period or have slightly changed to comply with the range allowed by the NC TAR. Some respondents however noticed these multipliers have in average slightly increased across Europe. Some respondent also complained about very high DA and WD multipliers applied in few Member States.	The Agency is equally concerned about the overly high ranges. Whereas the Agency would not promote further modifications to the ranges pursuant to Article 13 urges that appropriate analysis takes place when these high ranges are set at the EU IPs.

Question 5	Have you observed that changes in multipliers have led to changes in the tariffs applicable for other capacity products (e.g. yearly capacity product)? Please explain your reasoning:	ACER's view
Number of respondents	25 responses (out of 26 respondents)	
Yes	**5 respondents**	
Other	**9 respondents**	
No	**11 respondents**	
Positions and Rationale	A first group of respondents considers that changes in multipliers lead to changes in yearly capacity tariffs: • A reduction of DA and WD multipliers would further push the price of annual product up. • Comparatively cheaper short-term products would result in the reduction of bookings of yearly capacity products. • Shippers would indeed optimise their capacity bookings and reduce their overall amount of capacity bookings. Tariffs would then need to increase. A second group of respondents considers that it is difficult to attribute evolutions of tariffs to a single cause. Multipliers' impact cannot be isolated. Some of them add that changes in multipliers cannot be considered as a driving factor, affecting tariffs for other capacity products. Other parameters appear predominant (evolution of allowed revenues, of gas demand, end of long term commitments…).	The Agency reads out from these replies that the evolution of tariffs does not relate to a single cause. It is clear that a shift towards more profiled and short term bookings usually contributes to an increase of reference prices[4]. But it is also clear that other factors affect booking behaviors and levels of tariffs. Here again, the Agency considers that the relative influence of these factors can only be sort out on a case-by-case basis.

[4] Expect if multipliers are calculated specifically to compensate the profiling, which can lead to high multipliers.

Question 6-6.1	Have you observed that DA and WD multipliers have placed or could place in the coming years excessive costs on short-term capacity compared to the costs recovered through yearly capacity products? In the affirmative, how could it affect competition and market integration?	ACER's view
Number of respondents	26 responses	
Yes	**8 respondents**	
Other	**8 respondents**	
No	**10 respondents**	
Positions and Rationale	A first group of respondents answers positively that excessive costs have been placed or could be placed in the coming years on short term capacity: • High multipliers and expensive short-term capacities cement old market structures. They limit arbitrage opportunities, price convergence, liquidity and competition. • Multipliers and short-term tariffs should be compared to short run marginal costs faced by TSOs. Too high short-term prices could prevent efficient cross-border trades from occurring, inducing a loss of social welfare. • Too expensive short-term capacity would remain unsubscribed, which would ultimately lead to higher yearly tariffs. • Short-term multipliers particularly affect stakeholders involved in the electricity generation sector (the volatility of their gas consumption preventing long-term forecast of their gas transmission capacity needs). On the contrary, a second group disagree that excessive costs are placed on short term capacity: • There is currently little incentive to book long-term capacity and more shippers are booking short-term products with the current multipliers. • Lower short-term multipliers would induce a cross-subsidisation from long-term capacity holders to short term holders. This would distort competition.	Respondents provided a set of valid but also contradicting arguments. Most of them consider that multipliers affect competition and market integration. While the Agency is generally convinced that too high multipliers are clearly detrimental to market liquidity and competition, it also considers that the holders of short term capacity products should cover a fair share of transmission costs. Once again, the balance between these two objectives shall be appropriately considered..

	• Lower multipliers would increase tariff volatility (inducing transitory under-recovery and eventually leading to tariff increases). • Applying a cap to multipliers could provide an advantage to larger market participants who have the advantage of availing of more flexibility. Small players (residential, smaller customers and medium enterprise sectors) do not benefit from the same flexibility to book short-term products. They have to book yearly products to cover their peak day. • Flight to short-term bookings would induce more pressure on the balancing system (with some capacity bookings triggered by imbalances). Two respondents suggest considering the termination of existing long term capacity bookings to prevent any discrimination between holders of long-term and short-term bookings.	

Question 6.2	Please explain how you evaluate if costs for short-term bookings are excessive compared to yearly bookings and on what criteria you base your argument.	ACER view
Number of respondents	18 responses (out of 26 respondents)	
Positions and Rationale	Depending on their answers to the previous questions, the respondents use different arguments. Those who consider DA and WD multipliers to be too high compare the prices of daily capacity products with cross-border market spreads. They underline that high multipliers are often associated with an insufficient liquidity of spot markets. They also assume that too high DA and WD multipliers could deter short term bookings, and increase the risk of sunk costs for TSOs. For a cost reflectivity perspective, they consider that short term capacity products do not induce significantly higher short run marginal cost for TSOs, and thus that higher DA and WD multipliers are hardly justified. On the contrary, respondents considering that the current level of DA and WD multipliers are generally adequate argue that short term capacity products generate higher costs (administrative expenditures, balancing costs, higher commercial risks…). Moreover, they consider that the level of DA and WD multipliers should not aim at reflecting short run marginal cost, but at fairly allocating TSOs' fixed costs among the different categories of network users. They point out DA and WD multipliers should exceed monthly and quarterly ones, which supports the current range (from 1 to 3) of the NC TAR. They consider that the comparatively strong appetite of shippers for short term capacity products to the detriment of long term products demonstrate that DA and WD multipliers are not excessive. They also tend to believe that reasonably high DA and WD multipliers are associated with a better tariff stability. One respondent consider that multiplier levels cannot be properly assessed as, in the absence of an opt-out clause from long term capacity contracts, the shippers are not homogeneously exposed to short term capacity prices.	The Agency notes the divided views expressed by respondents, which are difficult to assess without referring to specific circumstances of a given IP. While the Agency considers that too high multipliers are detrimental to market liquidity and competition, cost-reflectivity is also a legitimate regulatory objective. Here the Agency disagrees with some respondents that considers that DA and WD tariffs should only reflect short run marginal costs. Gas TSOs have mostly fixed costs, and these costs should be reasonably allocated across all categories of network users.

Question 7	Have you observed that DA and WD multipliers have impacted or could impact in the coming years cross-border flows? Consider, in particular, situations where high DA and WD multipliers may prevent the use of available cross-border capacity or where high multipliers for DA and WD capacity product may negatively affect the correlation between gas prices in neighbouring hubs. Please explain your reasoning:	ACER's views
Number of respondents	26 responses	
Yes	**11 respondents**	
Other	**5 respondents**	
No	**10 respondents**	

Positions and Rationale	A first group of respondents answers positively and considers that high multipliers for DA and WD capacity product may negatively affect the correlation between gas prices in neighbouring hubs. From their perspective: • There is not clear incentive to book short term capacity from a trading perspective due to the excessive cost of capacity. • High within day multipliers reduce balancing efficiency as the cost of addressing imbalances becomes higher. • Setting too high short term multipliers may be detrimental to an optimized use of cross-border capacity, whereas the decrease of European gas production may lead to more long-distance transit flows. On the contrary, a second group of respondents considers that multipliers have a limited impact on cross-border flows. They argue that: • The impact of DA and WD multipliers is limited considering that network users predominantly book yearly, quarterly and monthly capacity products. These longer bookings contribute to low spread (since there is no marginal cost to flow gas once the capacity is booked). • Some IPs are mainly used for supply purposes and not for arbitrage purposes. Multipliers have a limited in these cases. • Lower DA and WD multipliers would lead to lower long term bookings. This could induce under-recoveries for TSOs that would eventually have to increase their cross-border tariffs applied to all capacity products, which would eventually hamper cross-border trade.	Here again, respondents raise relevant but contradicting views. From these responses, the Agency understands that taking into account the circumstances at a given IP is key to assess the impact of multipliers on cross-border flows. Some IPs are used for arbitrage purposes, and there multipliers have an important impact. On the contrary, at IPs used for supply purposes, flows can only be marginally impacted by multipliers. The Agency also notes that DA and WD multipliers can impact the balancing efficiency.

Question 8	Have you observed that DA and WD multipliers can be a market barrier (for instance by granting an advantage to holders of long-term bookings)? Please explain your reasoning:	ACER's view
Number of respondents	25 responses (out of 26 respondents)	
Yes	**10 respondents**	
Other	**4 respondents**	
No	**11 respondents**	
Positions and Rationale	According to a first group of respondents, high WD and DA multipliers act as a barrier against new entrants in the markets. The higher DA and WD multipliers, the higher the price spread must be between two markets for a profitable short-term transport. Some shippers may not have the operational nor financial structure to endorse a trading strategy through longer-term capacity products. Thus, new entrants tend to become less active in markets with higher multipliers, which in turn allows long term capacity holders to maintain a greater influence on gas prices. According several respondents, DA and WD multipliers can be a barrier if reference prices are initially high. A second group of respondents considers that they did not observed DA and WD multipliers acting as market barriers. Shippers have to option to buy gas at hubs if they do not want to book DA or WD capacity products at cross-border IPs. Congestion management procedures (e.g. UIOLI) limit the risk of capacity hoarding. These respondents agree with the first group that legacy capacity bookings can be considered as a sunk costs for shippers and do have a great influence on gas prices (since there is no marginal cost to flow gas once the capacity is booked). However, they consider that an artificial rise of costs of long-term gas capacity bookings would be detrimental for gas in terms of market-to-market competition and even of fuel-to-fuel competition.	The Agency considers that DA and WD multipliers have an impact on competition. However, this impact cannot be properly assessed without taking into account the respective maturity of each market. Moderate DA and WD multipliers (among other parameters) help emerging markets to compensate incumbents' positions and to progress towards more competition (by allowing new entrants to optimise their bookings) and liquidity. In more mature markets (with liquid hubs, limited congestion…), with less dominant players, this benefit is less important.

Question 9	From your perspective, what would be the advantages and disadvantages of capping DA and WD multipliers at 1.5 across Europe?	ACER's view
Number of respondents	26 responses	
Positions and Rationale	According to respondents, capping DA and WD would have the following advantages: • It would increase of the ability of small-size shippers to trade short-term capacity products (less market barriers), • It would increase of the number of market arbitrage opportunities, which in turn would increase competition and market integration, • It would facilitate trading and improve market liquidity, • It would be an additional step towards a better European harmonization and a simplification of the gas market. They also point out disadvantages of setting such a cap: • It would lead to higher reference prices (and eventually to less short-term arbitrage opportunities between hubs), • It would reduce the flexibility to take into account local circumstances. It would limit NRAs' and TSOs' ability to apply multipliers to improve tariffs cost-reflectivity, • It could induced undue cross-subsidisation between domestic and interconnection points and discrimination between network users with base-load or peak-load booking patterns, • It could trigger cascading effects. Lower DA and WD multipliers at capped 1.5 would also require lower monthly and quarterly multipliers, • Higher reference price and lower cost reflectivity would not favour revenue recovery, • Lower DA and WD multipliers could induce a higher probability of congestions.	The Agency agrees with most of the advantages and disadvantages listed by the respondents. While moderate DA and WD multipliers are generally favourable to competition and market liquidity, they can induce detrimental effects in terms of cost-reflectivity, cross-subsidisation and tariff stability. Here again, the Agency considers that striking a good balance between these positive and negative effects requires to take into account the specificities of each IP.

3. The Agency's analysis

The responses to the public consultation give a nuanced overview of the multipliers applied to day-ahead and within-day products across the European Union. These multipliers are important parameters, influencing shippers' booking strategies.

Their chosen levels must strike a balance between conflicting objectives. For example, low multipliers are generally seen as having a positive impact on market liquidity, competition, balancing efficiency, but low multipliers can also undermine cost-reflectivity, induce undue cross-subsidisation and increase tariffs volatility, if applied excessively.

The responses also show the difficulty to isolate and to assess the precise impacts of multipliers:

- Many factors, simultaneously at play, can induce tariff changes at IPs (seasonal factors, entry/exit split, evolution of TSOs' allowed revenues, evolution of bookings and of gas demand, etc…).
- Market circumstances are diverse and can change over time. For instance, the availability of competing gas sources routes or supply routes, the hub liquidity, the presence of legacy bookings, the risk of congestion influence the booking behaviour of shippers and the impact of multipliers at a given IP.
- Moreover, many of these factors are interdependent. Any change of DA and WD multipliers could for instance lead to increased reference prices, or distort the entry-exit split, or affect the liquidity.

This complexity makes it difficult to isolate and assess the benefits that would be induced by capping the multipliers at 1.5 at EU level, as indicated by Article 13(3) of the NC TAR.

Therefore, the Agency suggests that instead of reducing the ranges further for the daily and within day multipliers, it is more appropriate to manage the trade-offs on an IP by IP level and complete a more substantive analysis on the multiplier range that is specifically applied at a given IP.

During its own data analysis, the Agency did not find sufficient evidence supporting that a harmonised cap of DA and WD multipliers below 1.5 would deliver significant benefits. The following section displays a series of examples, showing the heterogeneity of circumstances at different IPs, and how this advocates for a differentiated setting of multipliers for each IP.

3.1. IPs with different roles

Cross-border IPs are used in diverse ways across Europe. At some IPs, flows are rather stable and amount to a high share of the technical capacity. At other IPs, flows are highly variable and responsive to cross-border spreads. The last edition of the Market Monitoring report provides a deeper analysis of these patterns[5].

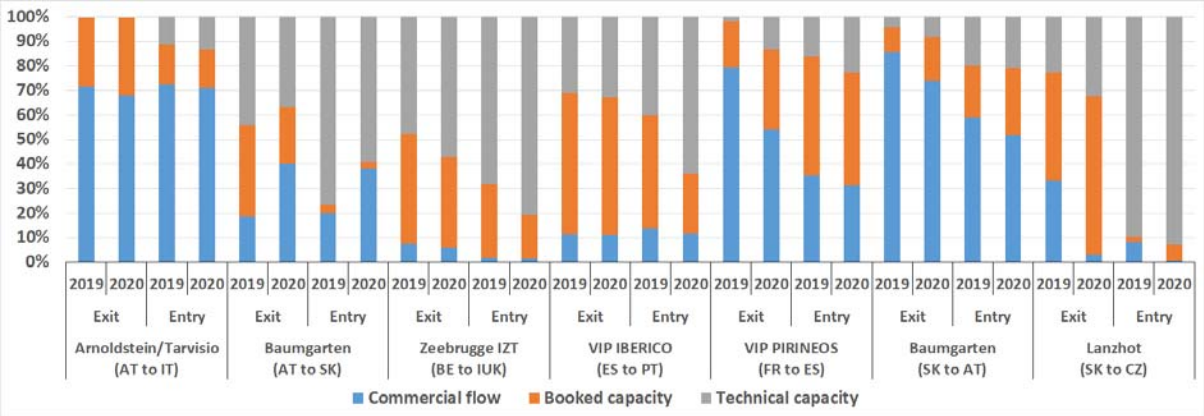
[5] See section *5.1.3 Utilisation of cross border capacity in the internal gas market* (p 76) in the Gas wholesale market volume of the ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2020

The first group of IPs, referred to as "core supply IPs" in the Market Monitoring report, are located on major supply routes and provide a baseload supply to several market zones (e.g. Yamal, Kipi and Baumgarten). The utilisation of these points seems to be little affected by the expiry of legacy contracts or by tariff changes (such as an evolution of multipliers).

On the contrary, the second group of IPs, referred to as "residual supply IPs" in the Market Monitoring report (e.g. interconnectors between UK and the continent), rather offers access to marginal supply sources, allows arbitrage between hubs, or is required to ensure an adequate level of security of supply. The utilisation of this second group of IPs is variable and impacted by the comparison between cross-border spreads and transmission tariffs.

Between these two characteristic groups, many IPs are hybrids and combine elements of both categories: there are stable flows, but almost always significantly below the technical capacity of these IPs. Beyond these baseloads, their utilisation is variable and responsive to cross-border spreads.

Figure 2 below compares the nominations, the booked capacity and the technical capacity for a number of IPs. The figure shows how nominations represent a higher share of technical capacity in some cases (core supply IPs), whereas in other cases, nominations are only a fraction of the technical capacity (residual supply IPs).



The stability of flows and the responsiveness to changes in market spreads are a key determinant of the role that multipliers have. These aspects are further explored in the next section.

3.2. Booking patterns to be assessed for each IP before setting multipliers

Several factors influence how multipliers can impact market integration.

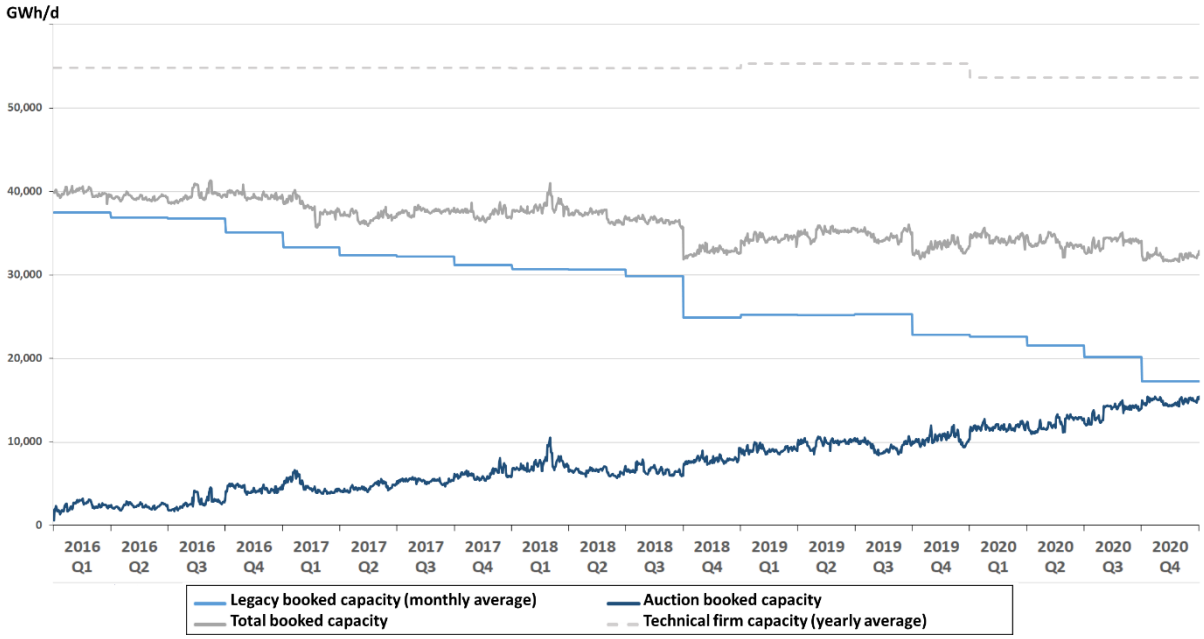
As previously explained, the position of an IP in the gas system, its role in the market, the presence of competing supply routes and of alternative gas sources (e.g. LNG) is likely to make capacity bookings more responsive to cross-border price spreads and therefore to tariffs and multipliers.

Additionally the kind of capacity products booked at the IPs also matter.

Evolution of Legacy bookings

In general, the aggregated amount of long term capacity bookings across Europe is gradually decreasing, due the end of legacy bookings made before the implementation of the NC CAM. These legacy bookings are only partially replaced by new (and shorter term) bookings, as shippers use the flexibility offered by the CAM NC and TAR NC to better optimise and profile their bookings.

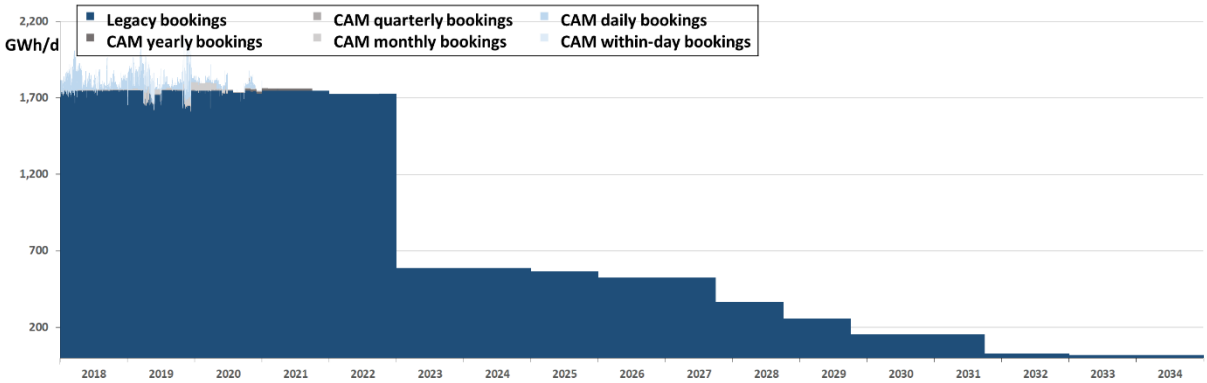
Figure 3 below provides a comparison between legacy bookings, CAM bookings, and total bookings aggregated at a EU level. The figure depict how the phase out of legacy bookings triggers an increase of CAM bookings.

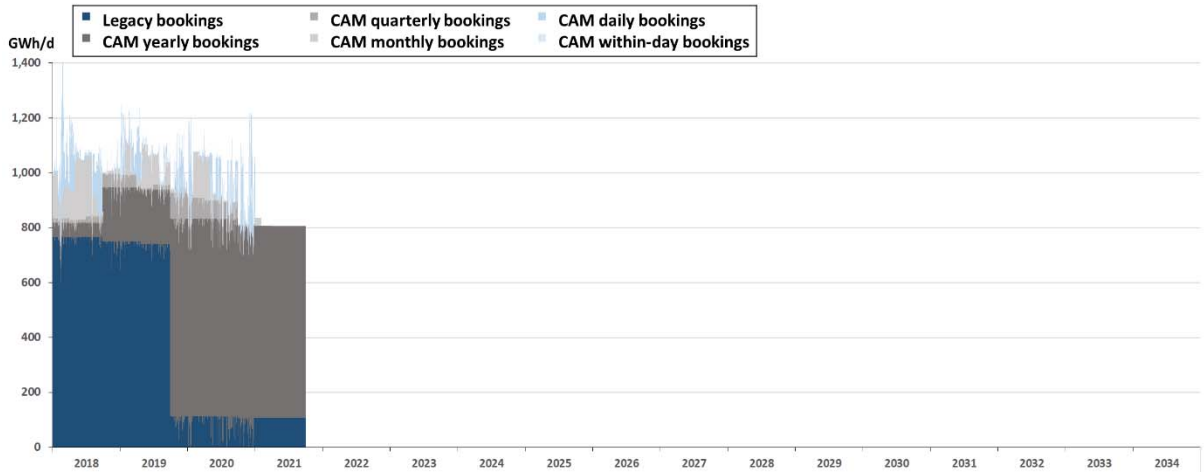


It is important to note that the evolution of bookings is not uniform across EU IPs. This is illustrated by the following examples.

First, looking at two entry IPs in Italy and Austria (see Figures 4-5 below), it can be observed that the bookings profile is different in each case. While a significant number of legacy bookings will last until the end of the decade at the Baumgarten entry IP in Austria, most of them were ended in 2019 at the Tarvisio entry IP in Italy, where most of the capacity bookings are now renewed every year through CAM auctions.

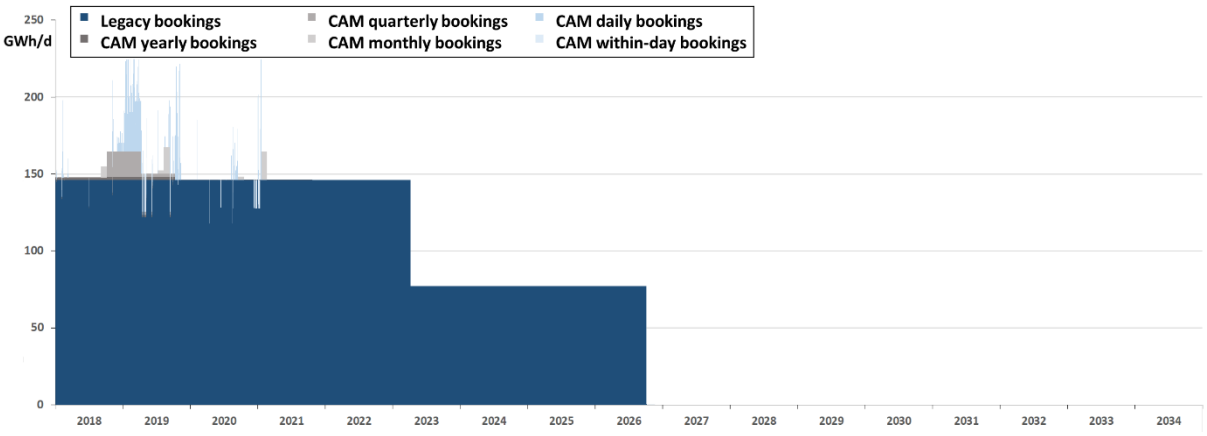
Figures 4-5 represent the booking types at the Baumgarten and Tarvisio IPs respectively. Legacy bookings (in dark blue) will last until 2031 at the Baumgarten IP (entry in Austria), even if they will drop by the end of 2022. At the Travisio IP (entry in Italy), most of legacy bookings already ended.

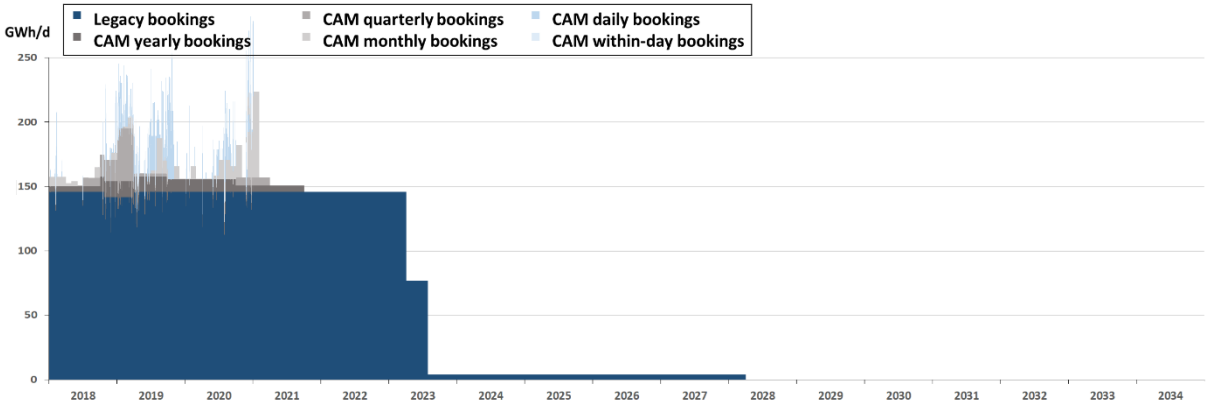




Second, the Pirineos IP between France and Spain is an example of how legacy bookings can span over different time durations on each side of the same IP, as shown in figures 6-7 below. In the case of the Spanish side, most of the legacy bookings end in 2023, while some of them will last until 2026 on the French side.

Figures 6-7 represent the booking types at the Pirineos IP, exit from France and entry in Spain, respectively. Legacy bookings will by the end of 2023 on the Spanish side, while approximately half of them will last until 2026 on the French side.





The presence or absence of multi-year capacity bookings at a given IP is an important parameter to consider when setting DA and WD multipliers. Indeed, such bookings represent sunk costs for shippers and a very limited market spread[6] is sufficient to trigger their nominations. In this respect, long term bookings efficiently contribute to price convergence and market integration between connected hubs.

If a significant amount of long term bookings are in force at a given IP, since market integration is already ensured, the NRAs should make a decision on the multipliers by trying to find a good balance between:

- on the one hand, a fair distribution of costs between the holders of short term and long term bookings (having in mind the objective of cost-reflectivity and that peak capacity drives most of TSOs' fixed costs);
- on the other hand, market access conditions that foster competition (allowing new players to book short-term products at a reasonable price to compete with incumbents).

If there is no significant long term booking at an IP, NRAs should more carefully assess the impact of DA and WD multipliers on market integration. In this case, shippers will profile their bookings to minimise their transmission costs based on quarterly, monthly, DA and WD multipliers. On days when flows will exceed annual and monthly bookings, DA and WD multipliers will determine the minimum spot market spread that will trigger gas flows. On these days, DA and WD multipliers limit price convergence between connected hubs.

Given the heterogeneity of booking patterns from one IP to another, it is therefore important to take into account the presence or absence of legacy bookings for each IP when assessing DA and WD multipliers. The gradual ending of legacy bookings will lead to more homogenous situations at IPs in the coming years, and will increase the impact of DA and WD multipliers on market integration.

Asymmetries between sides of the same IP: more factors

There are a number of factors which affect the impact of multipliers, and these factors can differ on each side of the same IP.

For example:

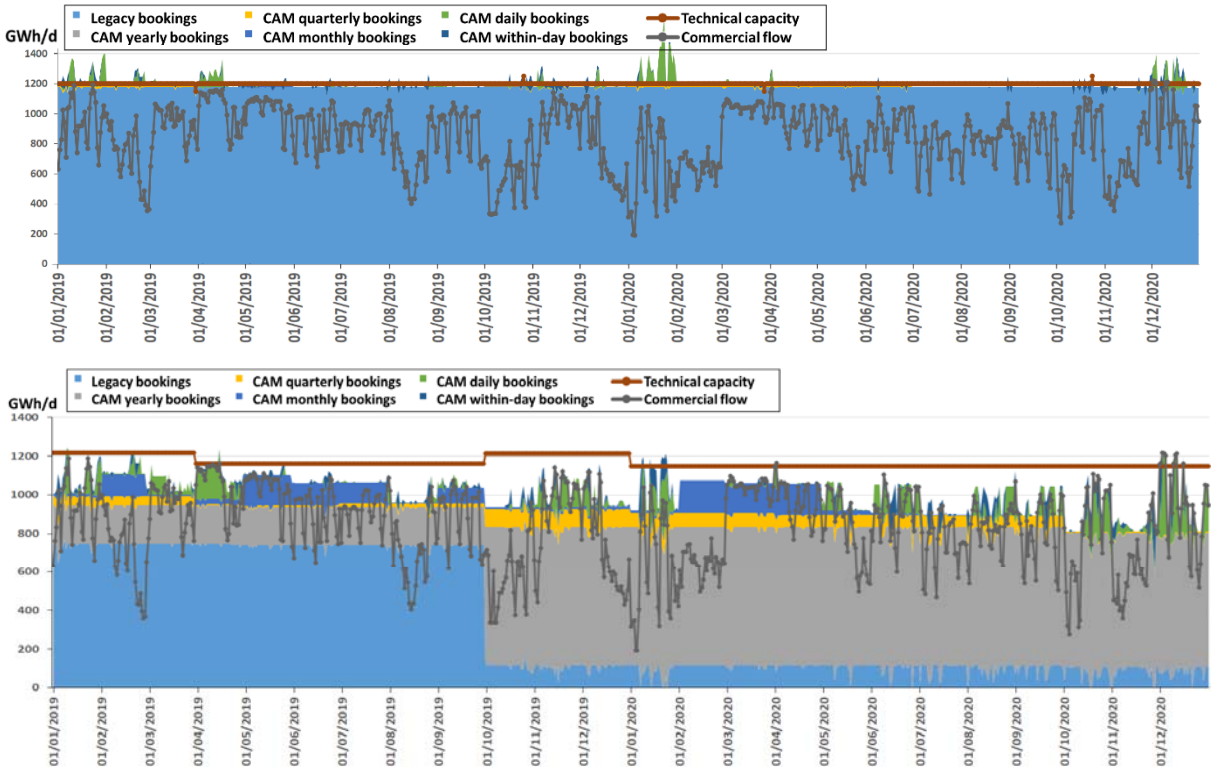
- The proportion of long term and short term bookings at each side of the IP,
- The differences in technical capacity at each side of the IP (and the resulting risk of congestion),
- The quality of capacity products (firm or interruptible) that influence shippers' appetite for short term capacity products,
- The differences of yearly reference prices applicable on either side of an IP (it is not possible to assess the impact of a multiplier by dissociating it from the reference price to which it is applied)

The IP from Austria to Italy (Arnoldstein/Tarvisio) offers an example showing that is important to assess distinctly the situation on both sides of the IP. In this case, the capacity is almost fully booked long term on the Austrian side while on the Italian side, the capacity is booked through CAM auctions. In such a situation, only multipliers on the Italian side of the IP can currently have a significant impact

[6] This market spread has to be higher than the commodity charge, if such a charge is applied at this IP.

on booking behaviours and market integration. Different multipliers on each side of the same IP can therefore be justified.

Figures 8-9 represent the booking profiles, the flow and the technical capacity on each side of the IP between Austria and Italy (Arnoldstein/Tarvisio). First, on the Austrian side, there is almost never a need to book capacity in addition to the legacy bookings to allow the flow from Austria to Italy. Then, on the Italian side, since Q4 2019, bookings are profiled with a combination of CAM products. Periods of peak flow trigger the bookings of daily and within-day products.



4. Conclusions

4.1. Position of the Agency

In line with what most respondents to the public consultation indicated, the Agency considers that NRAs should set DA and WD multipliers as a trade-off between two sets of conflicting objectives:

- On the one hand, relatively low multipliers favour competition, market liquidity and price convergence,
- On the other hand, sufficiently high multipliers are necessary to ensure a reasonable level of cost-reflectivity and a fair sharing of costs between holders of short term and long term capacity products.

However, the Agency does not consider that DA and WD multipliers have a direct impact on TSOs' revenue recovery. Several respondents argue that high multipliers encourage long term bookings that secure TSOs' revenues, but TSOs' costs can be reallocated to other network users. The relevant issues would rather be the fairness of this cost allocation and the stability of transmission tariffs. Additionally, at some IPs, new long term commitments are unlikely and too high multipliers could deter short term bookings and actually hamper revenue recovery.

Both the responses to the public consultation and the analysis of booking patterns at some IPs show that multipliers should be set taking into account many factors and a diversity of situations. For this reason, the Agency considers that NRAs can strike a better trade-off between their objectives if multipliers are set for each IP on a case-by-case basis, rather than trying to set a more harmonised EU-wide standard at this stage. This assessment may change in the future, when the expiry of long-term contracts will bring more homogeneous booking conditions.

In the light of the foregoing, the Agency considers that it is preferable not to cap the multipliers and to maintain the flexibility currently offered by the NC TAR (with a range of 1 to 3 recommended for WD and DA multipliers).

The Agency remains concerned that a few stakeholders complain that these ranges are not followed entirely (e.g. in Spain, DA and WD multipliers currently[7] exceed 3). The table displayed in Annex 1 shows that multipliers are harmonised nationally, but that neighbouring countries do not necessarily coordinate their decisions at shared IPs. While the previous sections have shown that the circumstances can differ on both sides of the same IP, and that different multipliers could be adequate, this should not prevent a coordinated approach. This lack of co-ordination could cause more problems where seasonal factors are involved in combination with high multipliers. For example, in 5 countries[8], the combination of multipliers and seasonal factors leads to a more than 4-fold increase in the prices of DA and WD capacity products compared to the reference prices during certain periods of the year. Yet, neighbouring countries do not implement similar price signals.

4.2. Improved practices

As an outcome of this analysis the Agency considers that the following good practices should be implemented regarding multipliers:

Substantiated trade-offs

The responses to the public consultation show that in many cases, stakeholders do not share the rationale supporting the decision setting the DA and WD multipliers. In their decisions, where high DA and WD multipliers exceeding 3 are set[9], the NRAs should clarify their regulatory objectives (how they rank their priorities between market integration, competition, and cost reflectivity) and should explain how they take into account the specificities of each IP (role in the system, presence of legacy bookings, etc.).

Cross-border coordination between NRAs when setting multipliers across an IP

In most cases, NRAs tend to adopt a harmonised set of multipliers for all IPs in their system. However, at cross-border IPs, multipliers usually differ from one side of the border to another. These differences can be amplified by an uncoordinated application of seasonal factors. The Agency encourages NRAs to consult each other and to better coordinate their efforts in this regard, in order to avoid situations

[7] e.g. in Spain, DA and WD multipliers currently exceed 3. The next Spanish Reference Price Methodology (Circular 6/2020) will be fully applicable from 1st of October of 2021. From then on, DA multipliers will be reduced from 3.01 to 1.60 and the WD multipliers for exist points from 5.06 to 3.80. On the contrary, the WD multipliers for entries will be increased from 5.06 to 6.10.

[8] Croatia, Hungary, Ireland, Romania, Slovenia

[9] Article 13(1)(b) of the NC TAR already states that DA and WD multipliers can exceed 3 only in duly justified cases.

where incentives set on one side of an IP are cancelled by opposite signals on the other side (in particular where high multipliers apply in combination with seasonal factors).

Monthly and quarterly multipliers

The agency stresses that the ranges for quarterly and monthly multipliers set by Article 13 of the NC TAR are binding and must be implemented. The Agency noticed that these multipliers currently exceed the cap of 1.5 in Slovakia. The Agency notes that the tariff decision 0040/2019/P of the Slovakian NRA will become applicable on 1st January 2022. The quarterly and monthly multipliers will then be reduced to 1.5.