Consultation document

Implementation of the network code on harmonised transmission tariff structures for gas

Vienna, 21 December 2023

Table of contents

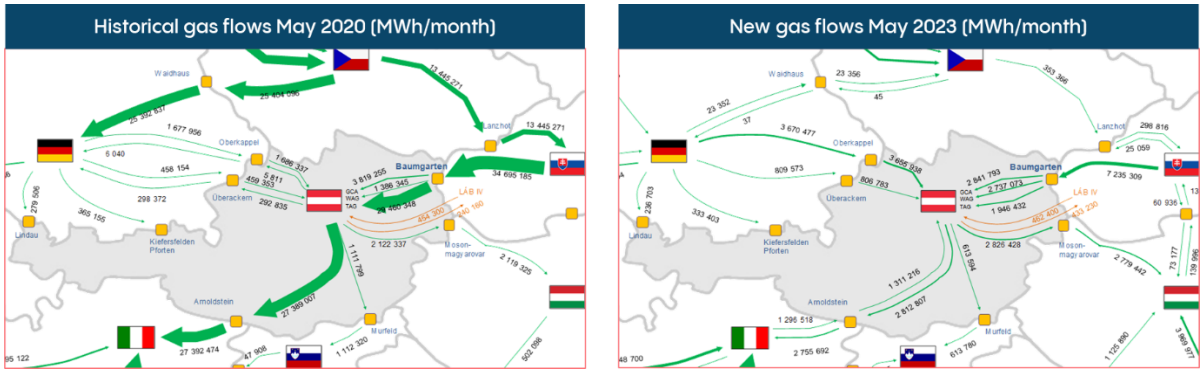
The tariffs published here are consulted according to Regulation (EU) 2017/460 (TAR NC). Please note that the tariffs published here represent indicative, non-binding tariffs that are provided for information purposes and might change as different inputs will be used for the new tariff period.

Preamble

Commission Regulation (EU) 2017/460 of 16 March 2017 on establishing a network code on harmonised transmission tariff structures for gas (TAR NC) provides the rules for inter alia determining transmission tariffs and their consultation. As stipulated by Article 27(5) TAR NC the periodic consultation on the reference price methodology (RPM) according to Article 26 TAR NC shall be conducted at least every five years, starting from 31 May 2019.

The current regulatory period for the Austrian gas transmission system ends with 31 December 2024, thus from 1 January 2025 new allowed revenues and new tariffs will apply, requiring an update of the tariff calculation methodology. In addition to this, the consequences of Russia's invasion of Ukraine have caused a major shift in the European gas sector and combined with the expiration of significant long-term contracts imply a fundamental review of the current RPM that was applied to calculate transmission tariffs for the past two regulatory periods (i.e., since 1 January 2013). The current RPM was developed and successfully applied under the predominant use of the Austrian gas transmission system for Russian gas flows (transit and domestic consumption), where Baumgarten took the role of the dominant node for gas flows. Now, in a completely changed situation, gas is entering the Austrian system from multiple directions (Germany, Italy and Slovakia) and transit flows have reduced greatly, as illustrated by the example of May 2023 compared to May 2020:

Figure 1: Changed flows in the Austrian transmission network



To adapt the RPM to this changed reality it is proposed to apply the capacity-weighted distance (CWD) RPM as it is the default RPM stipulated by TAR NC and offers robust, cost-reflective tariffs in an environment of uncertain future gas flows.

The present document provides all network users and interested parties the possibility to assess the proposed RPM, its inputs and the resulting indicative tariffs. The final tariffs

applicable from 1 January 2025 will be published beginning of June 2024, ahead of the annual yearly capacity auction.

1 Description of the proposed reference price methodology (Article 26(1)(a) TAR NC)

1.1 Description of the proposed reference price methodology

The reference price methodology (RPM) applied to calculate the indicative tariffs for the Austrian entry-exit system is the capacity-weighted distance model (CWD) described by the Agency for the Cooperation of Energy Regulators (ACER) in its documents "Revised chapter on Cost Allocation and determination of the reference price of the draft Framework Guidelines on rules regarding harmonised transmission tariff structures"[1] and "Tariff Methodologies: Examples. Illustrating the document: Public Consultation on Draft Framework Guidelines on rules regarding harmonised transmission tariff structures for gas".[2]

In accordance with Article 6(3) TAR NC, the RPM is applied jointly by all transmission system operators within the Austrian entry-exit system to all entry and exit points. The resulting reference prices will be applied during the upcoming tariff period, i.e. starting on 1 January 2025. During the next regulatory period, tariffs will be updated on a yearly basis.

For the determination of the transmission service revenues to be recovered by capacity-based transmission tariffs, a RPM based on the CWD model as described in Article 8 TAR NC is proposed. Recovery of allowed revenues is ensured by an inter-TSO compensation (ITC) mechanism as described in section 1.5.

The CWD RPM is configured with:

- an entry/exit-split of 50% / 50%;
- equalisation adjustments of tariffs for homogeneous groups of entry points and exit points, such that all points within these groups have equal tariffs;
- discounts of 100% for entry points from storage and 0% for exit points to storage;
- discounts of 10% for conditional products (DZK, dynamically allocable capacity) compared to the corresponding FZK (firm, freely allocable capacity) products at all entry and exit points.

Additionally, the RPM for capacity-based transmission tariffs is accompanied by

- a flow-based charge, levied for the purpose of covering the costs mainly driven by the quantity of gas flow ("commodity charge").

[1] https://www.acer.europa.eu/Official_documents/Public_consultations/Documents/Revised%20chapter.pdf#page=11
[2] https://www.acer.europa.eu/Official_documents/Public_consultations/Documents/TARIFF_METHODOLOGIES_EXAMPLES.pdf#page=24

Following ACER's general recommendation of shorter tariff periods, tariffs are calculated on a yearly basis within the 5th regulatory period. This allows to reflect changes in gas flow patterns and demands for transmission capacity more accurately by considering under- and over-recovery of allowed revenues in a timely manner.

The following input parameters are required for the RPM:

Table 1: Input parameters for the CWD RPM for tariff period 2025

Input parameter	Symbol	Value
Total allowed transmission service revenue to be recovered from capacity-based transmission tariffs by both TSOs	R_{total}	→ Table 8 and Table 9 (Sum of the allowed revenues to be recovered by capacity-based tariffs for both TSOs)
Entry/exit-split (before adjustments according to Article 6(4) TAR NC), i.e. the share of revenues to be recovered at entry/exit points	w_E	50%/50%
Forecasted contracted capacities for each direction, point and capacity type (FZK/DZK/UK)	C	→ Table 2 and Table 3
Shortest pipeline distances between all entry and exit points that can be combined in a relevant flow scenario	D	→ Table 4
Homogeneous groups of points to be used for equalisation		→ Table 5 and Table 6
Discount factor for storage entry points	d_E^{UGS}	100%
Discount factor for storage exit points	d_X^{UGS}	0%
Discount factor for dynamically allocable capacity (DZK)	d^{DZK}	10%

The reference price methodology used for the calculation of tariffs is the capacity weighted distance (CWD) methodology, as described in Article 8 TAR NC. It consists of the following subsequent steps:

1. Calculation of the part of capacity-based transmission service revenues to be recovered by entry points, R_E, and by exit points R_X:

$$R_E = R_{total} \cdot w_E$$

$$R_X = R_{total} \cdot (1 - w_E)$$

2. Calculation of the capacity-weighted average distance for each entry point, CWD_{E_i}, and for each exit point, CWD_{X_i}:

$$CWD_{E_i} = \frac{\sum_j C_{X_j} \cdot D(E_i, X_j)}{\sum_j C_{X_j}}$$

$$CWD_{X_i} = \frac{\sum_j C_{E_j} \cdot D(E_j, X_i)}{\sum_j C_{E_j}}$$

3. Calculation of the weight for capacity-based revenues for each entry point, $W_{E_i}^c$, and for each exit point, $W_{X_i}^c$:

$$W_{E_i}^c = \frac{C_{E_i} \cdot CWD_{E_i}}{\sum_j C_{E_j} \cdot CWD_{E_j}}$$

$$W_{X_i}^c = \frac{C_{X_i} \cdot CWD_{X_i}}{\sum_j C_{X_j} \cdot CWD_{X_j}}$$

4. Calculation of the part of the capacity-based transmission service revenues to be recovered by each entry and by each exit point:

$$R_{E_i} = W_{E_i}^c \cdot R_E$$

$$R_{X_i} = W_{X_i}^c \cdot R_X$$

5. Calculation of the initial capacity tariffs (FZK) for each entry point, $T_{E_i}^{FZK\ ini}$, and for each exit point, $T_{X_i}^{FZK\ ini}$:

$$T_{E_i}^{FZK\ ini} = \frac{R_{E_i}}{C_{E_i}^{FZK} + C_{E_i}^{DZK} \cdot (1 - d^{DZK})}$$

$$T_{X_i}^{FZK\ ini} = \frac{R_{X_i}}{C_{X_i}^{FZK} + C_{X_i}^{DZK} \cdot (1 - d^{DZK})}$$

6. Calculation of the initial DZK tariffs for each entry point, $T_{E_i}^{DZK\ ini.}$, and for each exit point, $T_{X_i}^{DZK\ ini.}$ by application of the discount factor d^{DZK}:

$$T_{E_i}^{DZK\ ini} = T_{E_i}^{FZK\ ini} \cdot (1 - d^{DZK})$$

$$T_{X_i}^{DZK\ ini} = T_{X_i}^{FZK\ ini} \cdot (1 - d^{DZK})$$

7. Adjustments according to Article 6(4) TAR NC and Article 9(1) TAR NC:

7.1 Equalisation: For each homogeneous group G_j the equalised group tariff $T_{G_j}^{FZK\ eq}$ (to be applied at each entry point E_i or each exit point X_i within the group) is determined by dividing the planned revenues from initial tariffs by the total forecasted contracted capacities (adjusted with the DZK discount factor, where applicable). The equalised DZK tariff is calculated by applying the DZK discount factor.

7.2 Storage Discounts: The discounted storage tariff for each storage entry point E_i and for each storage exit point X_i is calculated by applying the respective storage discount factor:

$$T_{E_i}^{FZK\ disc} = T_{E_i}^{FZK\ eq} \cdot (1 - d_E^{UGS})$$

$$T_{X_i}^{FZK\ disc} = T_{X_i}^{FZK\ eq} \cdot (1 - d_X^{UGS})$$

Note: At storage points no DZK capacities are marketed currently.

7.3 Benchmarking: Not applied for tariff period 2025.

7.4 Rescaling:

7.4.1 Calculation of the theoretically recovered revenue with tariffs calculated up to this point by multiplication of tariffs and forecasted contracted capacities and subsequent summation, $R_{pre-rescaling}$. Due to the storage discounts granted, this value is smaller than the allowed revenue R_{total}.

7.4.2 Calculation of the global rescaling factor f^{re} to ensure full recovery of the total allowed revenues:

$$f^{re} = \frac{R_{total}}{R_{pre-rescaling}}$$

7.4.3 Calculation of the final reference price methodology tariffs by application of the global rescaling factor f^{re}, distinguishing three different cases:

7.4.3.1 Case a): Tariff is neither adjusted by equalisation nor by a storage discount:

$$T_{E_i}^{FZK} = T_{E_i}^{FZK\ ini} \cdot f^{re}, \qquad T_{E_i}^{DZK} = T_{E_i}^{DZK\ ini} \cdot f^{re},$$
$$T_{X_i}^{FZK} = T_{X_i}^{FZK\ ini} \cdot f^{re}, \qquad T_{X_i}^{DZK} = T_{X_i}^{DZK\ ini} \cdot f^{re}$$

7.4.3.2 Case b): Tariff is adjusted by equalisation:

$$T_{E_i}^{FZK} = T_{E_i}^{FZK\ eq} \cdot f^{re}, \qquad T_{E_i}^{DZK} = T_{E_i}^{DZK\ eq} \cdot f^{re},$$
$$T_{X_i}^{FZK} = T_{X_i}^{FZK\ eq} \cdot f^{re}, \qquad T_{X_i}^{DZK} = T_{X_i}^{DZK\ eq} \cdot f^{re}$$

7.4.3.3 Case c): Tariff is adjusted by a storage discount:

$$T_{E_i}^{FZK} = T_{E_i}^{FZK\ disc} \cdot f^{re}$$
$$T_{X_i}^{FZK} = T_{X_i}^{FZK\ disc} \cdot f^{re}$$

Additional tariff calculation principles for points without technical/forecasted contracted capacity:

- Tariffs for firm capacity products at points with technical capacity but without forecasted contracted capacity are derived from the closest point tariff by applying the ratio between the CWD of these points:
  - The FZK tariff at exit point Petrzalka is derived from the FZK tariff at exit point Mosonmagyaróvár by applying the ratio between the CWD of these points.
- Tariffs for interruptible capacity products for virtual reverse-flow (i.e. at points with technical capacity only in the forward flow direction) are derived from the closest point tariff by applying the ratio between the CWD of these points.
  - The tariff for interruptible virtual reverse-flow at entry point Mosonmagyaróvár is derived from the FZK tariff at entry point Baumgarten by applying the ratio between the CWD of these points.

- The tariff for interruptible virtual reverse-flow at entry point Petrzalka is derived from the FZK tariff at entry point Baumgarten by applying the ratio between the CWD of these points.
- The tariff for interruptible virtual reverse-flow at entry point Murfeld is derived from the FZK tariff at entry point Arnoldstein by applying the ratio between the CWD of these points.

1.2 Parameters used in the applied reference price methodology that are related to the technical characteristics of the transmission system (Article 26(1)(a)(i) TAR NC)

The choice of parameters used as inputs in the RPM are based on the prerequisites of the TAR NC. The forecasted contracted capacities as well as the quantities of gas flows are based on actual annual bookings with forecasts for bookings of capacity products with shorter durations. The forecasts considered each entry and exit point individually.

1.2.1 Structural representation of the transmission network (Article 30(1)(a)(iv) TAR NC)

The Austrian natural gas network is subdivided into three Market Areas, however only Market Area East contains gas transmission pipelines and thus is subject to the TAR NC application scope, i.e. entry points and exit points of gas transmission networks. Furthermore, Market Area East is not connected to Market Area Tyrol and Market Area Vorarlberg within Austria.

For an overview of the transmission system please refer to the TSO websites:

i. Gas Connect Austria GmbH (GCA): https://www.gasconnect.at/
ii. Trans Austria Gasleitung GmbH (TAG): https://www.taggmbh.at/

Technical capacities for the entry and exit points of the transmission system are provided in Table 2 and Table 3 below.

1.2.2 Technical capacity and forecasted contracted capacity at entry and exit points (Article 30(1)(a)(i) and Article 30(1)(a)(ii) TAR NC)

The calculation of technical capacities was performed according to the calculation methodology pursuant § 34 Gaswirtschaftsgesetz 2011 (GWG 2011) (approved by E-Control), inter alia by conducting state-of-the-art load flow simulations.

Regarding the forecasted contracted capacity, on top of the existing long-term bookings, additional bookings were forecasted based on expected capacity demand for 2025 (indicative forecast from November 2023). The forecasted contracted capacity already includes the forecasted short-term bookings (quarter, month, day-ahead and within-day capacity products) on an annualised basis and weighted with the respective multipliers defined in section 5.1, as well as forecasted interruptible capacity bookings (weighted reflecting the discounts in section 5.4.1, respective points are marked with an asterisk* in the tables

below). Note that this can lead to instances where the forecasted contracted capacity appears larger than the technical capacity.

Table 2: Capacities at entry points (kWh/h)

Entry point	Technical capacity	Forecasted contracted capacity 2025	
		FZK / UK	DZK
Baumgarten	96 080 396	25 785 676	
Arnoldstein	17 377 622	9 181 043	521 331
Oberkappel*	10 349 306	10 987 013	
Überackern*	4 750 155	2 230 891	3 357 000
Mosonmagyaróvár	0	0	
Murfeld	0	0	
Petrzalka	0	0	
Storage MAB*	7 273 500	8 672 911	
Storage Penta West	2 950 825	0	
Distribution Area	10 848 000	4 028 400	

Table 3: Capacities at exit points (kWh/h)

Exit point	Technical capacity	Forecasted contracted capacity 2025	
		FZK / UK	DZK
Baumgarten	10 272 000	4 599 481	
Arnoldstein	50 014 969	6 683 747	
Oberkappel*	15 660 325	13 795 957	
Überackern*	7 273 500	324 117	6 431 372
Mosonmagyaróvár*	6 378 300	6 142 392	
Murfeld	4 688 610	638 699	
Petrzalka	1 119 000	0	
Storage MAB*	7 273 500	7 574 727	
Storage Penta West	2 950 825	0	
Auersthal	4 635 629	0	4 635 629
Kirchberg	0	0	
Gr. Göttfritz	0	0	
Rainbach	0	0	
Bad Leonfelden	2 378 658	0	2 378 663
Arnreith	0	0	
Baumgarten-PVS2	21 422 795	21 422 795	
Eggendorf	1 111 503	1 111 503	
Grafendorf	166 731	166 731	

Exit point	Technical capacity	Forecasted contracted capacity 2025	
		FZK / UK	DZK
St. Margarethen	221 439	221 439	
Weitendorf	1 952 543	1 952 543	
Sulmeck-Greith	110 456	110 456	
Ettendorf	55 223	55 223	
Waisenberg	22 022	22 022	
Ebenthal	110 087	110 087	
Finkenstein	284 539	284 539	

1.2.3 Additional technical information about the transmission network (Article 30(1)(a)(v) TAR NC)

In the applied reference price methodology the following distances are used as parameters to calculate capacity weighted distance tariffs:

Table 4: Pipeline-distances between entry points and exit points (in km)

from Entry / to Exit	Baumgarten	Oberkappel	Überackern	Mosonmagyaróvár	Petrzalka	Murfeld	Arnoldstein	Storage Penta West	Storage MAB	Domestic[3]
Baumgarten	-	245	340	49	39	241	385	337	5	27
Oberkappel	245	-	95	288	278	480	624	92	244	218
Überackern	340	95	-	383	373	575	719	3	339	313
Mosonmagyaróvár	49	288	383	-	10	284	428	380	48	70
Petrzalka	39	278	373	10	-	274	418	370	38	60
Murfeld	241	480	575	284	274	-	144	572	240	262
Arnoldstein	385	624	719	428	418	144	-	716	384	406
Storage Penta West	337	92	3	380	370	572	716	-	336	310
Storage MAB	5	244	339	48	38	240	384	336	-	26
Auersthal	27	218	313	70	60	262	406	310	26	-
Kirchberg	81	164	259	124	114	316	460	412	80	54
Gr. Göttfritz	136	109	204	179	169	371	515	467	135	109
Rainbach	188	57	152	231	221	423	567	519	187	161
Bad Leonfelden	205	40	135	248	238	440	584	536	204	178
Arnreith	225	20	115	268	258	460	604	556	224	198
Baumgarten-PVS2	3	242	337	46	36	238	382	334	2	24
Eggendorf	75	314	409	118	108	166	310	406	74	96
Grafendorf	140	379	474	183	173	101	244	471	139	161
St. Margarethen	183	422	517	226	216	58	201	514	182	204
Weitendorf	214	453	548	257	247	27	171	545	213	235
Sulmeck-Greith	234	473	568	277	267	48	150	565	233	255
Ettendorf	272	511	606	315	305	85	113	603	271	293
Waisenberg	303	542	637	346	336	117	81	634	302	324
Ebenthal	324	563	658	367	357	137	61	655	323	345
Finkenstein	364	603	698	407	397	178	20	695	363	385

[3] Assumption: Domestic entries (from storages) to enter the transmission system via Auersthal.

Regarding DZK (dynamically allocable capacities) restrictions on possible flow scenarios are applied in accordance with the conditions defined for enabling firm usage of DZK:

i. Entry Überackern (to Exit Oberkappel)
ii. Entry Arnoldstein (to Exit Distribution Area Carinthia; see definition below)
iii. Exit Überackern (from Entry Oberkappel)
iv. Exit Distribution Area (from Entry Baumgarten); see definition below
v. Exit Distribution Area (from Entry Oberkappel); see definition below

1.2.4 Homogeneous groups of points

For the purpose of equalisation the following homogeneous groups of points are defined:

Table 5: Homogeneous groups exits

Homogeneous Group	Points
Exit SK	Exit Baumgarten
	Exit Storage MAB
Exit DE	Exit Oberkappel
	Exit Überackern
	Exit Storage Penta West
Exit Distribution Area	Auersthal
	Kirchberg
	Gr. Göttfritz
	Rainbach
	Bad Leonfelden
	Arnreith
	Baumgarten-PVS2
	Eggendorf
	Grafendorf
	St. Margarethen
	Weitendorf
	Sulmeck-Greith
Exit Distribution Area Carinthia	Ettendorf
	Waisenberg
	Ebenthal
	Finkenstein

Table 6: Homogeneous groups entry

Homogeneous Group	Points
Entry DE	Entry Oberkappel
	Entry Überackern

For more details on the transmission system (e.g. pipeline lengths, diameters and compressor stations) please refer to the TSO websites:

- https://www.gasconnect.at/
- https://www.taggmbh.at/

1.2.5 Quantity and direction of the gas flows (Article 30(1)(a)(iii) TAR NC)

For the quantity and the direction of the gas flow for entry and exit points and associated assumptions, such as demand and supply scenarios for the gas flow under peak conditions please refer to the coordinated network development plan (KNEP) section 5.2.2. (Gebuchte Kapazitäten und Kapazitätsbedarfe je Ein- Ausspeisepunkt in den Jahren 2022 bis 2031; p. 72ff) that is jointly created by GCA, TAG and AGGM (Market and Distribution Area Manager) and is approved by E-Control (KNEP 2023-2032 was approved on 31.5.2023):

- https://www.e-control.at/bereich-recht/entscheidungen-vorstand-gas/knep-g#/

1.3 Value of proposed adjustment at entry and exit points to storage facilities (Article 26(1)(a)(ii) TAR NC)

The following discounts are applied to capacity-based transmission tariffs at entry points from and exit points to storage facilities. Taking into account that storage withdrawal capacity is always higher than storage injection capacity, on average the discount for storage capacity is at least 50%.

Table 7: Discounts at entry and exit points to storage facilities

Discount at entry points from gas storage facilities	100%
Discount at exit points to gas storage facilities	0%

There are several storage facilities which are connected to more than one transmission or distribution network and that are used to compete with the interconnection points (IPs) in Austria:

- Storages 7 Fields and Haidach (cross-border usage possibility Austria and Germany): entry/exit point “Storage Penta West” competes with interconnection points “Überackern-ABG” and “Überackern-SUDAL”
- Storage Lab (cross-border usage possibility Slovakia and Austria): entry/exit point “Storage MAB” competes with interconnection point Baumgarten

In order to avoid distortions a fee for cross-border storage usage on the foundation of Article 9(1) TAR NC was introduced already in the past. This fee is calculated and charged ex-post based on the actual daily cross-border usage and will be continued:

- volume base: peak hourly usage per gas day

- tariff base: respective interconnection point tariff (FZK), including the daily multiplier (see section 5.1 below)

1.4 Allowed revenue (Article 30(1)(b)(i) TAR NC)

The allowed revenues for GCA and TAG are currently undergoing the cyclical cost review process of E-Control and are thus subject to change. In order to perform the calculation of indicative reference prices for the public consultation the following illustrative values were applied as estimates:

Table 8: Allowed transmission revenues GCA for next tariff period 2025 (RP5 - indicative values) and current period (RP4 - actual values)

	RP5	RP4
GCA allowed revenues	121 000 000 EUR	126 092 600 EUR
GCA share to be recovered by capacity-based transmission tariffs	95 000 000 EUR	126 092 600 EUR
GCA share to be recovered by commodity-based transmission tariffs	26 000 000 EUR	0 EUR
GCA share to be recovered by non-transmission tariffs	0 EUR	0 EUR

Table 9: Allowed transmission revenues TAG for next tariff period 2025 (RP5 - indicative values) and current period (RP4 - actual values)

	RP5	RP4
TAG allowed revenues	179 000 000 EUR	278 833 200 EUR
TAG share to be recovered by capacity-based transmission tariffs	155 000 000 EUR	278 833 200 EUR
TAG share to be recovered by commodity-based transmission tariffs	24 000 000 EUR	0 EUR
TAG share to be recovered by non-transmission tariffs	0 EUR	0 EUR

These allowed revenues are before application of the inter-TSO compensation mechanism as defined in the section 1.5.

The change of allowed revenues from 2024 to 2025 is in particular subject to the following factors:

i. The duration of the regulatory period of 4 years, where the cost base for 2021-2024 was determined in 2020.

ii. The shift from reference volumes with risk remuneration to forecasted contracted capacity without risk remuneration. In line with this shift, a roll-up of past risk remunerations granted to the TSOs is considered in the allowed revenues.

iii. The impact of Russia's war against Ukraine on the gas flow situation (⟶ change in expected compressor energy demand) and on energy prices (⟶ change in expected compressor energy costs).

Please note that the information pursuant to Article 30(1)(b)(iii) TAR NC is still subject to the regulatory approval process of the methodology pursuant § 82 GWG 2011 and will be provided in the publication before the start of the annual capacity auctions in July 2024.

1.5 Inter-TSO compensation mechanism (Article 10(3) TAR NC)

The two TSOs GCA and TAG jointly span the common entry-exit system of Market Area East and consequently apply an overall market area tariff calculation approach. The nature of market area wide CWD tariffs does not ensure direct cost recovery for each TSO on itself. Thus, an inter-TSO compensation mechanism is required to fulfil the legal requirement of systematic cost recovery. This gives rise to:

i. inter-TSO compensation from capacity-based transmission tariffs

ii. inter-TSO compensation from the commodity-based transmission tariffs (Article 4(3) TAR NC)

The application of the RPM for 2025 tariffs results in planned ITC payments from GCA to TAG. Since tariffs are calculated based on forecasted contracted capacity, revenues based on actual contracted capacity will deviate from the planned revenues. Consequently, the ITC payments shall be performed on a "pay-as-earned" principle, meaning the share of the planned ITC payments in GCA's planned transmission tariff revenues shall be used to determine the inter-TSO payment from GCA's actual transmission tariff revenues. This principle is applied to each tariff category that is set with an overall market area tariff calculation approach (i.e. capacity-based tariffs and flow-based charge).

i. The planned ITC is calculated as the difference between GCA's planned revenues and GCA's allowed revenues: $ITC_{plan} = R^{GCA}_{plan} - R^{GCA}_{allowed}$

ii. The pay-as-earned tariff component is calculated as the share of the planned ITC in the planned revenues of the ITC providing TSO (GCA): $\alpha_{ITC} = \frac{ITC_{plan}}{R^{GCA}_{plan}}$

iii. The ITC to be paid by GCA to TAG is determined by applying the tariff component to the actual revenues: $ITC_{actual} = \alpha_{ITC} \cdot R^{GCA}_{actual}$

iv. Total ITC payments are capped by the sum of the planned ITC payments.

v. This has to be performed separately for each of the tariff categories, i.e. capacity-based tariffs and commodity-based tariffs.

The following table contains the indicative ITC tariff components for the tariff period 2025:

Table 10: ITC tariff components α_{ITC} for tariff period 2025

GCA's revenue share from capacity-based tariffs for ITC payments to TAG	44%
GCA's revenue share from the flow-based charge for ITC payments to TAG	28%

2 Transmission tariff level and estimation

2.1 Value of indicative reference price (Article 26(1)(a)(iii) TAR NC) and difference in the level of transmission tariffs for the same type of transmission service (Article 30(2)(a)(i) and Article 30(2)(a)(ii) TAR NC)

The following indicative capacity-based transmission tariffs, expressed in EUR/kWh/h/a, result from applying the RPM with the input parameters described in section 1. The tables below compare them to the tariffs of the current tariff and regulatory period (RP4 tariffs).

Table 11: Indicative capacity-based tariffs of GCA for tariff period 2025

Direction	Type	Point	Indicative capacity-based tariff	RP4 tariffs	Relative difference
			EUR/kWh/h/a	EUR/kWh/h/a	%
Entry	FZK	Baumgarten	1.11	0.85	+31%
Entry	FZK	Oberkappel	2.97	0.97	+206%
Entry	FZK	Überackern	2.97	0.97	+206%
Entry	FZK	Verteilergebiet (Domestic Area)	0.00	0.00	
Exit	FZK	Baumgarten	1.25	1.23	+2%
Exit	FZK	Oberkappel	2.48	3.26	-24%
Exit	FZK	Überackern	2.48	3.26	-24%
Exit	FZK	Mosonmagyaróvár	1.25	1.23	+2%
Exit	FZK	Petrzalka	1.18	1.23	-4%
Exit	FZK	Murfeld	2.18	1.90	+15%
Exit	FZK	Verteilergebiet (Domestic Area)	1.11	0.42	+163%
Entry	DZK	Überackern	2.67	0.88	+204%
Exit	DZK	Überackern	2.23	2.93	-24%

Direction	Type	Point	Indicative capacity-based tariff	RP4 tariffs	Relative difference
			EUR/kWh/h/a	EUR/kWh/h/a	%
Exit	DZK	VG Auersthal (Domestic Area)	0.99	0.38	+162%
Exit	DZK	VG Bad Leonfelden (Domestic Area)	0.99	0.38	+162%
Entry	FZK	Storage Penta West	0.00	0.00	
Entry	FZK	Storage MAB	0.00	0.00	
Exit	FZK	Storage Penta West	2.48	0.44	+463%
Exit	FZK	Storage MAB	1.25	0.44	+184%

Table 12: Indicative capacity-based tariffs of TAG for tariff period 2025

Direction	Type	Point	Indicative capacity-based tariff	RP4 tariffs	Relative difference
			EUR/kWh/h/a	EUR/kWh/h/a	%
Entry	FZK	Baumgarten	1.11	0.85	+31%
Entry	FZK	Arnoldstein	4.18	0.97	+330%
Exit	FZK	Arnoldstein	3.47	4.35	-20%
Exit	FZK	Verteilergebiet (Domestic Area)	1.11	0.42	+163%
Exit	FZK	VG-Kärnten (Domestic Area Carinthia)	2.70	3.85	-30%
Entry	DZK	Arnoldstein	3.77	0.68	+454%

The following tables show the estimated tariffs resulting from applying the proposed reference price methodology to forecasted contracted capacities and flow volumes for the remainder of the tariff period. Please note that forecasts and calculations will be done on a yearly basis for the following year and therefore can result in different tariffs than preliminarily indicated below.

Table 13: Estimated capacity tariffs for the full regulatory period GCA

Direction	Type	Point	2025 (indicative)	2026 (preliminary)	2027 (preliminary)	2028 (preliminary)
			EUR/kWh/h/a	EUR/kWh/h/a	EUR/kWh/h/a	EUR/kWh/h/a
Entry	FZK	Baumgarten	1.11	1.06	1.06	0.96
Entry	FZK	Oberkappel	2.97	2.90	3.02	3.26
Entry	FZK	Überackern	2.97	2.90	3.02	3.26

Direction	Type	Point	2025 (indicative)	2026 (preliminary)	2027 (preliminary)	2028 (preliminary)
			EUR/kWh/h/a	EUR/kWh/h/a	EUR/kWh/h/a	EUR/kWh/h/a
Entry	FZK	Verteilergebiet (Domestic Area)	0.00	0.00	0.00	0.00
Exit	FZK	Baumgarten	1.25	1.33	1.44	1.82
Exit	FZK	Oberkappel	2.48	2.57	2.68	3.14
Exit	FZK	Überackern	2.48	2.57	2.68	3.14
Exit	FZK	Mosonmagyaróvár	1.25	1.39	1.51	1.94
Exit	FZK	Petrzalka	1.18	1.31	1.43	1.85
Exit	FZK	Murfeld	2.18	2.35	2.54	2.73
Exit	FZK	Verteilergebiet (Domestic Area)	1.11	1.23	1.33	1.72
Entry	DZK	Überackern	2.67	2.61	2.72	2.94
Exit	DZK	Überackern	2.23	2.31	2.42	2.83
Exit	DZK	VG Auersthal (Domestic Area)	0.99	1.11	1.20	1.55
Exit	DZK	VG Bad Leonfelden (Domestic Area)	0.99	1.11	1.20	1.55
Entry	FZK	Storage Penta West	0.00	0.00	0.00	0.00
Entry	FZK	Storage MAB	0.00	0.00	0.00	0.00
Exit	FZK	Storage Penta West	2.48	2.57	2.68	3.14
Exit	FZK	Storage MAB	1.25	1.33	1.44	1.82

Table 14: Estimated capacity tariffs for the full regulatory period TAG

Direction	Type	Point	2025 (indicative)	2026 (preliminary)	2027 (preliminary)	2028 (preliminary)
			EUR/kWh/h/a	EUR/kWh/h/a	EUR/kWh/h/a	EUR/kWh/h/a
Entry	FZK	Baumgarten	1.11	1.06	1.06	0.96
Entry	FZK	Arnoldstein	4.18	4.03	4.11	4.22
Exit	FZK	Arnoldstein	3.47	3.71	3.98	4.44
Exit	FZK	Verteilergebiet (Domestic Area)	1.11	1.23	1.33	1.72
Exit	FZK	VG-Kärnten (Domestic Area Carinthia)	2.70	2.88	3.11	3.21
Entry	DZK	Arnoldstein	3.77	3.63	3.70	3.80

2.1.1 Indicative reference prices for interruptible capacity products

Tariffs for interruptible capacity products are determined in accordance with sections 5.4.1 (ex-ante discounts) and 1.1 (virtual reverse-flow). For points with ex-post discounts as described in section 5.4.2 the interruptible capacity product tariff is equal to the FZK tariff and not provided separately in this document.

Table 15: Indicative interruptible capacity-based tariffs of GCA for tariff period 2025 without ex-post discounts

Type	Direction	Point	Indicative capacity-based tariff	RP4 tariffs	Relative difference
			EUR/kWh/h/a	EUR/kWh/h/a	%
Interruptible	Entry	Oberkappel	2.61	0.85	+208%
Interruptible	Entry	Überackern	2.61	0.85	+208%
Interruptible (VRF)	Entry	Mosonmagyaróvár	1.58	0.85	+86%
Interruptible (VRF)	Entry	Petrzalka	1.35	0.85	+59%
Interruptible (VRF)	Entry	Murfeld	2.69	0.97	+177%

For short-haul transmission services involving the transfer of gas between ABG and SUDAL pipelines (both part of the German gas transmission system) in GCA's Überackern station the currently applicable discounted tariff is continued:

Table 16: Tariffs for interruptible short-haul capacity of GCA for tariff period 2025

Type	Direction	Indicative capacity-based tariff	RP4 tariffs	Relative difference
		EUR/kWh/h/a	EUR/kWh/h/a	%
Short-haul from Überackern-SUDAL to Überackern-ABG	Entry	0.14	0.14	0%
	Exit	0.14	0.14	0%
Short-haul from Überackern-ABG to Überackern-SUDAL	Entry	0.14	0.14	0%
	Exit	0.14	0.14	0%

Revenues from this short-haul tariff are to be treated under GCA's capacity-based transmission revenues, however no contracted capacity is forecasted for short-haul transmission services.

2.2 Indicative commodity-based transmission tariffs (Article 26(c)(i) TAR NC)

2.2.1 Commodity charge (Article 4(3)(a) TAR NC):

The commodity charge is calculated on the basis of allowed costs to be recovered by a flow-based charge and forecasted flow volumes. It is set in such a way that it is the same at all entry points and the same at all exit points. Allowed costs are forecasted based on power

and gas usage and the associated costs thereof. The parameters were chosen to cover the costs mainly driven by the quantity of gas flow (as ordained by Article 4(3)(a)(iii) TAR NC).

The entry/exit-split for commodity is set to 50% / 50% as indicated in Table 19.

The charge is expressed in monetary terms in the form of EUR/MWh. The table below shows the relevant values used for the determination of the commodity charge (the respective allowed revenues are provided in section 1.4).

Table 17: Forecasted flows for the calculation of the flow-based charge

Points	Forecasted flow for 2025
	MWh
Entry points GCA	141 843 857
Entry points TAG	66 969 421
Exit points GCA	143 526 582
Exit points TAG	45 057 615

Table 18: Flow-based charge acc. to TAR NC Article 4(3)a for tariff period 2025

Direction	Flow-based charge 2025	RP4 tariff[4]
	EUR/MWh	EUR/MWh
Entry	0.11972	0
Exit	0.13257	0

2.3 Explanation of the differences between tariff in the current and next tariff period (Article 26(1)(d) TAR NC)

The differences in the tariff levels of the 4th and 5th regulatory period lie mainly in the change of the reference price methodology from the virtual point-based (VPB) methodology to the default capacity weighted distance methodology. The change itself is a necessary consequence of the changed circumstances that the Austrian transmission system faces in the upcoming years.

The VPB approach with Baumgarten as a dominant node of the system fit the reality of the years before Russia's invasion of Ukraine in February 2022 very well. The majority of entry capacities were booked at the IP Baumgarten and exited the system at IP Arnoldstein, the distribution area exit points or the western exit points (Oberkappel and Überackern). With

[4] In the 4th regulatory period a flow-based charge was applied between 1.6.2022 and 31.12.2023. From 4.11.2022 until 31.12.2023 the charges amounted to 0.20772 EUR/MWh on the entry side and 0.69818 EUR/MWh on the exit. The initial charges from 1.6.2022 to 4.11.2022 were set at 0.08552 €/MWh (entry) and 0.31829 €/MWh (exit).

the discontinuation of Russian transit flows to Italy and the fact that Germany also has further diversified its sources of gas supply IP Baumgarten ceases to qualify as a real dominant node.

Because of the same reason it is proposed to use forecasted contracted capacities instead of reference volumes. Based on actual annual bookings and additional predictions for shorter-term products, TSOs can forecast only one year ahead responsibly.

The differences in the indicative tariffs for the remainder of the regulatory period (2026, 2027, 2028) result from the forecasted contracted capacities at the time of publication of this consultation document for these years (the indicative allowed revenues for the TSOs are identical over this time period, in accordance with the methodology pursuant § 82 GWG 2011).

2.4 Simplified tariff model (Article 30(2)(b) TAR NC)

See attached excel model.

3 Transmission service revenue (Article 30(1)(b)(iv) TAR NC)

The following table contains the ratios for the transmission service revenues referred to in Article 30(1)(b)(v) TAR NC.

Table 19: Transmission service revenue ratios according to Article 30(1)(b)(v) TAR NC

Capacity/commodity-split	83.3% / 16.7%
Entry/exit-split (capacity)[5]	46.9% / 53.1%
Entry/exit-split (commodity)	50.0% / 50.0%
Intra-system/cross-system-split	27.8% / 72.2%

[5] This value deviates from the 50% / 50% -split due to the application of the storage discounts and rescaling.

4 RPM assessments (Article 26(1)(a) TAR NC)

4.1 Cost allocation assessment (Article 26(1)(a)(iv) TAR NC)

The cost allocation assessment (CAA) according to Article 5 TAR NC shall be used to indicate the degree of cross-subsidisation between network uses under the proposed RPM tariffs.

4.1.1 CAA for capacity-based tariffs

The cost drivers applied for the assessment are the respective distance in combination with the forecasted contracted capacity. This is consistent with the input parameters of the RPM.

The cost allocation comparison index for capacity-based tariffs amounts to 25.7%. As the ratio of intra-revenues per intra-cost drivers is higher for intra-system usage, the proposed RPM does not lead to a negative impact on cross-border trade. Taking a closer look at the reasons for this index value it can be mostly associated to the situation on the entry side: While entry revenues for intra-system usage and cross-system usage are split 29% / 71%, entry cost drivers for intra-system usage and cross-system usage are split 18% / 82%, thus claiming theoretically a relatively higher cost burden vs. cost driver.

Thus, while the threshold of 10% mentioned in Article 5(6) TAR NC is exceeded, this is effectively the result of the CWD RPM with the default entry/exit-split of 50% / 50%, i.e. the default RPM stipulated by TAR NC that is set as the benchmark for all other methodologies.

Table 20: CAA capacity

Ratio intra	9.4
Ratio cross	7.3
CAA index	25.7%

4.1.2 CAA for commodity-based tariffs

The cost driver applied for the assessment is the forecasted flow. This is consistent with the input parameters of the calculation of the flow-based charge and a continuation of the approach when the first commodity-based tariffs were introduced in Austria.

The cost allocation assessment index for commodity amounts to 0.6%. This does not exceed the value of 10% mentioned in Article 5(6) TAR NC.

Table 21: CAA commodity

Ratio intra	125.4
Ratio cross	126.1
CAA index	0.6%

4.2 Assessment of the reference price methodology (Article 26(1)(a)(v) TAR NC)

Since the nature of the utilisation of the Austrian transmission network changed dramatically since the beginning of the last regulatory period a different RPM had to be applied. As discussed in further detail in section 2.3 the VPB methodology with IP Baumgarten as a dominant node does not reflect the reality of the transmission system anymore. The proposed CWD reference price methodology is the benchmark reference price methodology according to Article 8 TAR NC and as such the most straightforward and cost-reflective approach.

4.2.1 Reproducibility

The simplified tariff model (see section 2.4), along with the accompanying input data on forecasted contracted capacities, allowed costs, distances, and discounts, allows all network users to replicate the calculation of reference prices. Another element that makes the RPM easily reproducible is the fact that the CWD methodology was applied with very limited and transparent adjustments, i.e. only equalisation of homogeneous groups of points (see section 1.2.4) and obligatory storage discounts.

4.2.2 Assessment of the actuality of costs

E-Control is currently in the process of determining the regulatory cost base and allowed revenues for the 5th regulatory period (2025-2028). The numbers provided in this RPM consultation are therefore to be considered indicative. The updated rules for the determination of the regulatory cost base and allowed revenues will be laid down in a separate document according to § 82 GWG 2011.

4.2.3 Cost-reflectivity, cross-subsidisation and volume risks

The capacity-weighted distance method according to Article 8 TAR NC is the reference and benchmark price methodology of TAR NC and as such ensures cost-reflectivity. The straightforward CWD methodology together with the annual tariff period ensures that revenues are generated only where flows are de facto expected. Unlike in the last reference price methodology where volume risk was assigned to the TSOs it will in future be assigned to network users.

4.2.4 Effects on cross-border trade

The effects on cross-border trade can be clearly attributed to the significant change of gas flows as a consequence of Russia's invasion of Ukraine. This change of gas flows is the decisive reason behind the need to fundamentally change the reference price methodology applied. The requirement of non-distorting cross-border trade is fulfilled by the cost-reflectivity of the CWD methodology and resulting tariffs. The applied adjustments mentioned in

Article 6(4) TAR NC (i.e. equalisation and rescaling) have no effects on non-adjusted points (see above).

5 Discounts, multipliers and seasonal factors (Article 28 TAR NC)

5.1 Level of multipliers (Article 28(1)(a) TAR NC)

Gas networks are designed to transport at peak conditions during the whole year, but they are not usually utilised at full capacity all the time. Multipliers allow for charging relatively more for short-term peak usage of the system, with the following general positive effects:

i. Promoting an efficient use of the system by keeping tariffs for new long-term bookings competitive

ii. Incentivising network users to engage in contracts with longer duration

iii. Optimising efficient revenue recovery as new long-term bookings may then in turn also contribute to a reduction of multipliers in the future.

The following level of multipliers is proposed for the tariff year 2025 due to the changed European gas flow patterns combined with the maturation of significant long-term contracts, taking into account the limits set by the TAR NC as follows:

Table 22: Multipliers for tariff period 2025

Point	Year	Quarter	Month	Day	Within-day
All entry & exit points	1.00	1.50	1.50	3.00	3.00

5.2 Level of seasonal factors (Article 28(1)(b) TAR NC)

No seasonal factors apply.

5.3 Level of storage discounts (Article 28(1)(c) TAR NC)

See section 1.3 above.

5.4 Level of interruptible discounts (Article 28(1)(c) TAR NC)

5.4.1 Ex-ante discounts

For the consultation of this document the continuation of the current ex-ante discounts for interruptible capacity products at Entry Oberkappel and Entry Überackern was assumed:

Table 23: Indicative ex-ante discounts for interruptible capacity products for tariff period 2025

Point	Direction	Indicative level of ex-ante discount
Oberkappel	Entry	12%
Überackern	Entry	12%

The final ex-ante interruptible discounts will be calculated and published one month before the annual capacity auction in 2024 based on the most recent interruption data.

5.4.2 Ex-post discounts

According to Article 16(4) TAR NC, the national regulatory authority may decide to apply an ex-post discount at interconnection points where there was no interruption of capacity due to physical congestion in the preceding gas year.

Presently, interruptible capacity tariffs align with firm capacity tariffs, with compensations granted in case of interruptions. The compensation, in the form of reduced charges for services in the respective runtime, equals up to three times the reserve price for daily standard capacity products. The TSO's ex-post compensation is capped at the invoiced amount for the interruption period, F_{inv}.

The refund, K, to be granted by the transmission system operator is calculated by applying the following formula:

$$K = min\left(3 \cdot T_d \cdot C_{int}^{Avg}, F_{inv}\right)$$

Where:

i. K is the compensation for the interruption of the interruptible capacity product for a day.

ii. T_d is the reference price for a firm daily capacity product at the point where the interruption occurred.

iii. F_{inv} is the invoiced fee of the period when the interruption occurred.

iv. C_{int}^{Avg} is the average interruptible capacity which was interrupted on the relevant day. It is computed as follows:

$$C_{int}^{Avg} = \frac{\sum_{i=1}^{h} \Delta C_i}{h}$$

Where:

i. ΔC_i is the difference between the hourly capacity offered and the actually available hourly capacity for each hour of the affected gas day.

ii. h is the number of hours of the affected gas day.

6 Non-transmission tariffs (Article 26(1)(c) TAR NC)

n.a.

7 Annex

Abbreviation	Meaning
CAA	Cost allocation assessment
CWD	Capacity weighted distance
DZK	Dynamically allocable capacity (feste, dynamisch zuordenbare Kapazität)
FZK	Freely allocable capacity (feste, frei zuordenbare Kapazität)
GCA	Gas Connect Austria GmbH
GWG	Gaswirtschaftsgesetz (Natural Gas Act)
IP	Interconnection point
KNEP	Coordinated network development plan
RP4	Regulatory period 4 (2021-2024)
RPM	Reference price methodology
TAG	Trans Austria Gasleitung GmbH
TAR NC	Tariff Network Code
TSO	Transmission system operator
UK	Interruptible Capacity (Unterbrechbare Kapazität)
VPB	Virtual point based (methodology)
VRF	Virtual reverse flow